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Introduction

VISION

The Program Prep Block aims to provide HA trainees basic English language knowledge in order to prepare them to successfully perform using the English language that is specific to the medical field in the HA programs.

MISSION

The Program Prep Blocks designed to promote the use and knowledge of basic English language among HA trainees by offering them the skills, the knowledge and the values needed to practice the basic English language communicatively, ethically and competently in alignment with the HA vision to have its trainees succeed in the programs it offers.

OVERVIEW

The purpose of the Program Prep Blocks to prepare HA trainees to communicate effectively using the English language from a basic medical perspective. The Program Prep Blockies offered as a preparatory Block taught preceding HA programs that are offered in English language.

The Program Prep Block aims at developing trainees' Basic English language skills in the medical context. The Prep Block offers four English for specific purposes (ESP) Modules to enable trainees acquire basic English language skills required to proceed in the HA programs. All Modules are classified as upper-intermediate English proficiency levels. Although each Module targets specific skills, the Modules are aligned in terms of proficiency level, overall learning objectives and overall learning outcomes. The ultimate goal for all four Modules is to ensure that trainees are exposed to and practice sufficient basic medical English language.

Program Prep Block Details

Introduction

The Program Prep Blocks offered prior to all HA programs presented in the English language. Trainees are required to successfully complete the Program Prep Block in order to acquire Basic English language competency and hence be competent and practice ESP that is relevant to the medical contexts.

The Program Prep Blocks an intensive ESP block and the duration is 6 weeks. The Program Prep Block offers four modules each focusing on certain skills to provide trainees with the required ESP competencies required to successfully continue using the English language in the HA programs. The four Modules offered in the Program Prep Block are as follows:

1

Introduction to Medical Literacy

Basic Literacy module outcomes:

- 1 Differentiate the situations of where to apply certain literacy skills according to certain contexts and given scenarios.
- 2 Demonstrate an understanding of the different types of literacy practices used in the field of health literacy.
- 3 Distinguish the basic formats used in technical English (such as the informative, descriptive etc.)
- 4 Use basic technical written English appropriately in multiple scenarios.
- 5 Apply written communication skills that are basic in health-related contexts.
- 6 Define some certain terminology and concepts that are related to the health field using English communicatively.
- 7 Analyze given literacy contexts and identify which skills are to be implemented in those contexts.

8 Demonstrate the knowledge of basic written communication skills required to perform effectively in a health context.

9 Illustrate / comprehend and demonstrate sufficient knowledge of certain topics that are related to the given themes throughout the Health Literacy Module.

10 Apply the basic strategies that are related to written and oral interactions in health literacy genres.

11 Analyze reading passages, note taking, understand the strategies required to communicate successfully in a health literacy context.

Table: outline of topics and skills to be taught in the Introduction to Basic Literacy Module

WK#	Learning Objective	Topic	Sub-Topics	Sample pedagogical practices <small>(See Attachment 2)</small>
1	Understand health literacy, its role and identify what are the attributes of health literacy.	<ul style="list-style-type: none"> Overall Block Orientation Introduction to health literacy 	<ul style="list-style-type: none"> The significance of health literacy. Health Literacy and its effect on individuals, communities, and organizations. The Attributes of HealthLiterate Health Care Organizations. 	Selected readings, articles and passages.
2	<ul style="list-style-type: none"> Apply the basic literacy skills needed for communication. Understand the required steps and processes used to write appropriately in a given context. Analyze the contextual dimensions that determine the literacy choices. 	Written communication skills; selected readings/topics from Basic Human Sciences	<ul style="list-style-type: none"> Writing reports. Writing emails/ letters. Writing referrals/ reference letters. 	<ul style="list-style-type: none"> Writing based on a scenario/ simulation context Trainees are given a situation/ scenario then they are required to write a passage related to that context. This is different from writing based on a text because in this type of writing, trainees are required to understand the scenario and interpret the scenario in terms of the values, beliefs and contextual elements that determine the type of language they are required to use in that specific scenario.
3	<ul style="list-style-type: none"> Write notes of main ideas, and details from an extended listening text that are used as sources for language input. Outline the types and concepts of the targeted skills that include explaining appositives, organizational cues and attitudes, and detecting the main inferences in a listening lecture. 	Note Taking: Taking notes, Clinical patent notes, etc. Selected readings/ topics from Infection Control Hygiene	<ul style="list-style-type: none"> Summarizing information Skimming readings. Scanning for information from selected lectures and scenarios related to the health field. 	<ul style="list-style-type: none"> Writing based on Debates and class discussions Writing based on oral presentation: Oral presentation of the writing topic can be done through: Asking a series of Qs to elicit ideas & information about the topic. Building up an outline or a list of key expressions on the board the trainees can use as a basis for their writing.

- Summarize the specific information of different English-speaking contexts after listening to a recorded dialogue or lecture.
- Show an ability to answer questions about a recorded listening dialogue or other course material independently, in pairs or in groups.

4	<ul style="list-style-type: none"> • Differentiate valid and trustworthy references vs. inaccurate and unreliable recourses. • Access information sources including digital libraries, databases appropriately 	Writing ethics and finding valid references. Selected readings/topics from Patient Experience	<ul style="list-style-type: none"> • Working With certified and valid references, Libraries and Other Community Organizations. • Identifying what references are acceptable and valid. • Evaluating Web Sources • Plagiarism, research writing ethics. 	
5	<ul style="list-style-type: none"> • Demonstrate an understanding of plagiarism and how to avoid it. • Differentiating formal and academic language used in written contexts. 	Quoting, paraphrasing, and summarizing; how to avoid plagiarism when writing and referencing. Selected topics from Health care Systems	<ul style="list-style-type: none"> • Selecting verified references and applying quoting, paraphrasing and summarizing skills. • Using formal written English. • Coherence and cohesion in writing. • Plagiarism, research writing ethics. 	
6	<ul style="list-style-type: none"> • Apply an understanding of how to use health literacy in written and oral contexts. • Identify the different scenarios and contexts in which their literacy skills are applied. • Demonstrate a solid knowledge and understanding of literacy skills thorough applying the sub-skills in case studies 	Further implications/ implementations of the topics through case studies	<ul style="list-style-type: none"> • Case studies and implications of the previous topics through real-life scenarios and case studies. 	Group-work practices Pair-work Trainee-led explanations of what has been learnt thus far. Trainees should implement what they have been learning thought the previous weeks.



Attachment1: (Table) Suggested materials, references and resources in the Introduction to Basic Literacy modules

Existing literature/ Suggested topics	Topic/theme	Reference
	<p>Understanding health literacy:</p> <ul style="list-style-type: none"> Why is it important? Health Literacy and its affect on individuals, communities, and organizations. Ten Attributes of Health Literate Health Care Organizations 	<ul style="list-style-type: none"> https://www.cdc.gov/healthliteracy/learn/index.html https://www.cdc.gov/healthliteracy/learn/Understanding.html https://www.ahrq.gov/health-literacy/publications/ten-attributes.html https://www.ukessays.com/essays/health/health-teaching-health-literacy-5071.php https://health.gov/sites/default/files/2019-09/Health_Literacy_Action_Plan.pdf https://www.rasmussen.edu/degrees/health-sciences/blog/importance-of-health-literacy/
	<p>Written communication skills:</p> <p>Writing report, emails/letters, etc.</p>	<ul style="list-style-type: none"> https://www.mastertutorials.org/subjects/how-to-write-a-medical-report/#:~:text=Instructions%3A-%201%20Know%20that%20a%20common%20type%20of,in%20caring%20for%20the%20patient.%20More%20items...%20 https://www.researchgate.net/publication/274258298_Improving_medical_students%27_written_communication_skills_Design_and_evaluation_of_an_educational_curriculum
	<p>Note Taking:</p> <p>Taking notes, Clinical patent notes, etc.</p>	<ul style="list-style-type: none"> https://www.bing.com/videos/search?q=how+to+write+a+medical+report&&view=detail&mid=444C650CB6CE7F489BB7444C650CB6CE7F489BB7&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dhow%2Bto%2Bwrite%2Ba%2Bmedical%2Breport%26qvt%3Dhow%2Bto%2Bwrite%2Ba%2Bmedical%2Breport%26FORM%3DVORE http://depts.washington.edu/psychres/wordpress/wp-content/uploads/2017/09/clinical_notes-2.doc http://depts.washington.edu/psychres/wordpress/guide-to-writing-clinical-notes/ http://www.efl.net.com http://www.esl.about.com http://www.englishclub.com
	<ul style="list-style-type: none"> Working With certified and valid references, Libraries and Other Community Organizations: Identifying what references are acceptable and valid Evaluating Web Sources Plagiarism, research writing ethics 	<ul style="list-style-type: none"> Willman, N. (2011). Research Methods: The Basics. London: Routledge. Lester, J. (2015). Writing Research Papers: A Complete Guide, Harlow: Pearson Education 5th ed

2

Value Based Healthcare

Course Learning Objectives:

- 1 Describe Value Based Healthcare, Patient Experience and significance of improvement of Patient experience in Value Based Healthcare (VBH)
- 2 Illustrate various terms related to Value Based Healthcare, Patient experience and difference between Patient engagement & experience.
- 3 Discuss the benefits of Value based healthcare and its key elements.
- 4 Explain the role of various healthcare team members in Patient experience providing Value based healthcare
- 5 Discuss strategies to implement VBH and improve Patient experience

Table1: Outline for topics/ skills to be taught in Patient Experience

WK#	Learning Objective	Topic	Sub-Topics	Sample pedagogical practices (See Attachment 2)
1	Describe Experience and significance of improvement of Patient experience in Value Based Healthcare (VBH)	Introduction	<ul style="list-style-type: none"> Describe VBH & Patient Experience Significance of Improvement of Patient Experience in VBH VBH and Patient Experience arena in the Kingdom 	

2	Illustrate various terms related to VBH, Patient experience and difference between Patient engagement & experience.	Patient Engagement VS Patient Experience in VBH	<ul style="list-style-type: none"> • Understanding relation between Patient Engagement & Patient Experience • Various terms used in VBH, Patient experience and engagement 	
3	Discuss the benefits of Value based healthcare system and its key elements.	Fundamentals of Value based Healthcare system	<ul style="list-style-type: none"> • Value based healthcare Model & its benefits • Key elements of Value based healthcare • Accountable Care Organizations • VBH vs Fee per service healthcare system 	
4	Explain the role of various healthcare team members in Patient experience providing Value based healthcare	Inter-professional Healthcare providers	<ul style="list-style-type: none"> • Role of Inter-professional team • Significance of Inter-professional Healthcare providers team in improving Patient experience & delivering VBH 	
5	Discuss strategies to implement VBH and improve Patient experience	VBH & Patient Experience models	<ul style="list-style-type: none"> • Value based Healthcare Implementation in Europe • Patient Experience Models and role of Patient experience in VBH implementation 	
6	Case Studies	Case Studies in Europe	<ul style="list-style-type: none"> • Private hospitals: Santeon • Condition specific provider: Martini-Klinik • Chronic care outpatient clinic: Diabeter • Public hospital: Basel University Hospital • Public hospital: New Karolinska Hospital • Public hospital: Uppsala Academic Hospital • Network of independent caregivers: GLA:D • Health system: NHS Wales • Third party quality registry: The Netherlands Heart Registry • Private payer: Menzis 	

3

How to Search

Course Learning Objective:

1 Assist students to become better “searchers”

Outline for topics/ skills to be taught in Patient Experience

WK#	Learning Objective	Topic	Sub-Topics	Sample pedagogical practices <small>(See Attachment 2)</small>
1	Students will learn how to choose appropriate search terms and queries guide targeted searches	1. Picking the right search terms	<ul style="list-style-type: none"> • Effective search • Context terms “How can context terms help me target my search for what I need ” • Using appropriate search terms and queries to guide targeted searches • Determine unique terms that will be used to help students search effectively 	
2	Students will be able to understand search results.	2. Search results	<ul style="list-style-type: none"> • Evaluating search results • How researchers make wise decisions in selecting appropriate strategies and sources that ultimately satisfy the task. • How and why do researchers evaluate search results? 	
3	Apply appropriate strategies to narrow a search to have more targeted and effective results.	3. Narrowing a search to get the best results	<ul style="list-style-type: none"> • Best type of source to use to collect evidence. • Filtering strategies to help me finding accessible sources from the Web. 	

4	Evaluate search results to make wise decisions in selecting appropriate links.	4. Searching for evidence for research tasks	<p>How can I search for the best evidence to fulfil my task.</p> <ul style="list-style-type: none"> • How do I use my search results to help me find new and more information? • How do I find the most appropriate sources and gather evidence for my task? • What are different formats of web pages? 	
5	Evaluating and selecting credible sources help students to gather relevant and credible information about a topic to convey ideas accurately and clearly.	5. Evaluating credibility of sources	<ul style="list-style-type: none"> • How do I decide which sources to use for an assignment? • How can I recognize bias? • What are the signs of misquotes or falsified images? • How might I check the facts of a source? 	
6		6. Assessment		



4

Communication and Medical Ethics

Course Learning Objectives:

- 1 Identify the rights and responsibilities of patients, families, and health care providers.
- 2 Recognize different aspects and issues related to the Saudi legal system and Islamic values to health practice.
- 3 Demonstrate professionalism in the workplace.
- 4 Cultivate basic interpersonal skills related to work.
- 5 Identifying the types of communication
- 6 Define verbal and non-verbal
- 7 Cultivate basic interpersonal skills related to work.

8 Recognize different techniques

9 Illustrate active listening

10 Demonstrate communication style

Table1: Communication and Ethics

WK#	Learning Objective	Topic	Sub-Topics	Sample pedagogical practices/activities	Suggested References and Resources
1	<ul style="list-style-type: none"> Understand the communication and identify what is communication skills. Understand the importance of communication skills. 	Introduction communication	<ul style="list-style-type: none"> The definition of communication and explanation. The importance of learning the communication skills 	<ul style="list-style-type: none"> Reflection, writing a summary about their understanding of the definition of communication and explain the importance of it with examples 	https://corporatefinanceinstitute.com/resources/careers/soft-skills/communication/#:~:text=From%20a%20business%20standpoint%2C%20all,to%20frequent%20misunderstanding%20and%20frustration.
	<ul style="list-style-type: none"> Define ethics and Recognize the different domains of ethics List the sources of health care ethics 	Introduction ethics	<ul style="list-style-type: none"> The definition of ethic. Sources of Healthcare Ethics Important subjects in ethics 	<ul style="list-style-type: none"> Reflection, writing a summary about their understanding of the definition of ethics 	https://www.scfhs.org.sa/en/Media/OtherPublications/Documents/Professionalism%20and%20Ethics%20Handbook%20for%20Residents.pdf
2&3	<ul style="list-style-type: none"> Apply the basic types of communication. Understand the deference of each type. Identify each type of communication 	Types of communications	<ul style="list-style-type: none"> Verbal. Non- Verbal. Written. Visual. 	<ul style="list-style-type: none"> Discussion.Discuss about these types of communication. Give an example of each of it on how to use in your real life. Write a reflection about this lecture. 	https://www.valamis.com/hub/types-of-communicationhttps://kimavi.com/Communication-Skills-Types-of-Communication
	<ul style="list-style-type: none"> Outline the elements of communication. Use the elements of communication Recognize each element. 	The main elements in communication process	<ul style="list-style-type: none"> Sender Encoding Message Channel Decoding Feedback Receiver 	<ul style="list-style-type: none"> Case scenario:Good and bad Reflection: draw or writing based on students understanding 	https://newsroom.com/communication-elements-9-components-of-basic-communication-process/ https://businessjargons.com/communication-process.html
	<ul style="list-style-type: none"> Classify each type of communication. Discusses the types of communication. Compare the types. 	Focusing on the most using types of communication	<ul style="list-style-type: none"> Verbal. Non- Verbal. 	<ul style="list-style-type: none"> Simulation Write reflection 	https://courses.lumenlearning.com/wm-businesscommunication/chapter/verbal-and-nonverbal-communication/ https://askanydifference.com/difference-between-verbal-and-non-verbal-communication/

	<ul style="list-style-type: none"> Demonstrate an understanding of interaction etiquettes. 	Interaction etiquettes	<ul style="list-style-type: none"> Demonstrate Telephone as well as Email interaction etiquettes. 	<ul style="list-style-type: none"> Case scenario: Good and bad. Writing email. Reprehensive: use an example of a phone call 	https://blog.hubspot.com/service/phone-etiquette https://www.cio.com/article/2418072/e-mail-etiquette--8-tips-to-avoid-communication-blunders.html
	<ul style="list-style-type: none"> Apply an understanding of how to use different techniques. Identify the different scenarios and techniques. 	Improving and effective of communication skills	<ul style="list-style-type: none"> Demonstrate different techniques of dealing with difficult patients, families, and caregivers 	<ul style="list-style-type: none"> Group-work practices Pair-work Storytelling 	https://www.cornerstone-ct.com/2019/10/17/deal-difficult-people/ https://www.biltmorecounseling.com/biltmore/tips-for-communicating-with-difficult-people/
	<ul style="list-style-type: none"> Apply an understanding of each one of the active listening Recognize what is active listening. Understand the deferent between each one. 	Active listening.	<ul style="list-style-type: none"> Pay attention. Show that you're listening. Provide feedback.. Defer judgment. Respond appropriately. 	<ul style="list-style-type: none"> Simulation Guess the emotion 	https://www.mindtools.com/commskill/activelisting.htm
	<ul style="list-style-type: none"> Identify the communication style. Understand each style. Classify the deferent between each one. 	Communication style	<ul style="list-style-type: none"> Assertive communication style Aggressive communication style. Passive communication style Passive-aggressive communication style Manipulative communication style 	<ul style="list-style-type: none"> Group discussion Reflection 	https://www.valamis.com/hub/communication-styles
4&5	<ul style="list-style-type: none"> Comprehend the concept of workplace professionalism Explain the benefits of professionalism Recognize what makes a worker a professional 	Professionalism	<ul style="list-style-type: none"> Benefits of professionalism Professionalism Key elements Attributes of a professional 	speaking, nationality, money, disability) the affects, how to solve this problem?	http://ksumsc.com/download-center/Archive/2nd/433/professionalism/433%20Team%20work/L1-Definition%20%26%20key%20elements.pdf
	<ul style="list-style-type: none"> Identify the basic ethical principles and Use them in making an ethical dissuasion 	The 4 basic ethical principles: respect for autonomy, beneficence, nonmaleficence, and justice	<ul style="list-style-type: none"> The principle of respect for autonomy The principle of Beneficence The principle of nonmaleficence The principle of Justice 	<ul style="list-style-type: none"> Interactive quiz Case scenario 	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4863255/ https://blogs.biomedcentral.com/bmcseriesblog/2012/07/13/measuring-the-four-principles-of-beauchamp-and-chidress/ https://www.atrainceu.com/content/3-principles-healthcare-ethics
	<ul style="list-style-type: none"> Implement Rights and responsibilities of patients, families, and health care providers. 	Rights and responsibilities of patients, families, and care providers.	<ul style="list-style-type: none"> Patients' rights Patients' Responsibilities Support patients rights 	<ul style="list-style-type: none"> Case scenario: Scenarios of patient rights Storytelling 	https://www.scfhs.org.sa/en/Media/OtherPublications/Documents/Professionalism%20and%20Ethics%20Handbook%20for%20Residents.pdf https://www.kfshrc.edu.sa/en/home/patientcare/patientsvisitorsinformation/393 https://www.moh.gov.sa/HealthAwareness/EducationalContent/HealthTips/Documents/Patient-Bill-of-Rights-and-Responsibilities.pdf

	<ul style="list-style-type: none"> Implement Rights and responsibilities of patients, families, and health care providers. 	<p>Rights and responsibilities of patients, families, and health care providers.</p>	<ul style="list-style-type: none"> Patients' rights Patients' Responsibilities Support patients rights 	<ul style="list-style-type: none"> Case scenario: Scenarios of patient rights Storytelling 	https://www.scfhs.org.sa/en/Media/OtherPublications/Documents/Professionalism%20and%20Ethics%20Handbook%20for%20Residents.pdf https://www.kfshrc.edu.sa/en/home/patientcare/patientsvisitorsinformation/393 https://www.moh.gov.sa/HealthAwareness/EducationalContent/HealthTips/Documents/Patient-Bill-of-Rights-and-Responsibilities.pdf
	<ul style="list-style-type: none"> Recognize interpersonal skills that relate to healthcare ethics Develop strong ethics related interpersonal skills 	<p>Interpersonal skills</p>	<ul style="list-style-type: none"> Truthfulness Honesty and Integrity Humbleness and Respect for Others Loyalty Self-Discipline and Self –Responsibility Initiative Being dependable Patience and Forbearance Passion and Love Religious rulings Ethical values related to Muslims Saudi Health Law 	<ul style="list-style-type: none"> Problem solving Search report 	https://www.moh.gov.sa/en/Ministry/Rules/Pages/default.aspx https://www.ncbi.nlm.nih.gov/books/NBK499933/ https://laws.boe.gov.sa/BoeLaws/Laws/LawDetails/1169b2b7-4e7d-4775-86b0-a9a700f2841e/1 https://www.moh.gov.sa/Ministry/Rules/Documents/005.pdf
	<ul style="list-style-type: none"> Practice Applying ethics to everyday scenarios Explain the Systematic process for working through ethical situations Apply different ways to develop professionalism and strong work ethic 	<p>Developing a strong work ethics</p>	<ul style="list-style-type: none"> Ways to develop professionalism Systematic process for working through ethical situations Ethical dilemmas 	<ul style="list-style-type: none"> Videos Discussion of ethical dilemmas 	https://www.ted.com/talks/dawne_ware_ethics_yes_even_when_nobody_is_watching https://www.ted.com/talks/patrick_lin_the_ethical_dilemma_of_self_driving_cars National Guard Hospital Ethical Framework for Nurses - 2016.pdf

6

Final Assessments

- Theoretical Exam
- Final project

5

Technical English

Module outcomes:

-
- 1 Understand the meanings of some basic technical terminology within the given themes of this Health Literacy.
 - 2 Use basic technical terminology in the health literacy genera, pronounce, spell and read the terminology correctly.
 - 3 Know the form of the word (such as its part of speech, i.e., whether it is a noun or adjective or a verb).
 - 4 Identify the collocations of a word (which words go together & the order in which they appear)
 - 5 Knowing about the connotations of each word (the ideas or values or feelings associated with the word) [e.g. using plump instead of fat to have positive effect].
 - 6 Distinguishing between technical terminology that are used in a certain context as opposed to and non-technical terminology.
 - 7 Knowing about the word's synonyms and antonyms according to context.
-

8

Interpret the meanings of new words through the contexts.

9

Analyze the context cues and overall context to identify the terminology in a given scenario and/or context.

Table1: Outline of topics and skills to be taught in the Technical English Module

WK#	Learning Objective	Topic	Sub-Topics	Sample pedagogical practices/activities
1	Identify technical terminology as opposed to everyday used English terminology. Distinguish jargon and determine which terminologies belong to specialized contexts (health contexts).	Orientation to the English Prep Block. Introduction to the course, general topics in health-related contexts		Selected readings, articles and passages.
2	Identifying context cues and making sense of the overall context to derive meanings. Understand that some terminologies are context specific.	Selected readings/topics from Basic Human Sciences	Human Body-the heart and lung, dentistry, Anatomy Surgery	
3	Use terminologies correctly, communicatively in a context such as written contexts and/or oral scenarios. Contextualize new terminologies. Identify terminologies parts of speech. Analyze the parts of the new terminologies (with prefixes and suffixes).	Selected readings/topics from Infection Control Hygiene	Disease & illness Epidemics, viruses and pandemics	See attachment 2 and 3 Note: the goal is to have trainees acquire the technical terminology communicatively and effectively; this can be done only when terminologies are put into contexts. Therefore, the integration of skills is highly recommended.
4	Recall a list of terminologies that are used in a patient/doctor/health/ clinic or hospital scenario. Determine the appropriate terminologies used in a context related to Patient Experience.	Selected readings/topics from Patient Experience	Elderly care Routine checkups Diagnosis Tests and scans	
5	Identify the set of words related to Health care Systems. Compare and contrast the terminologies of Health care Systems to other fields to understand the similarities and differences.	Selected topics from Health care Systems	Hospital administration Medical equipment	

6	<p>Analyze health related contexts and determine the appropriate use of the terminologies learned overall the module.</p> <p>Name a lists of terminologies that are specific to Basic Human Sciences, Infection Control Hygiene, Patient Experience and Health care Systems.</p> <p>Illustrate an accurate understanding of the technical terminology by the using them in scenarios orally and written.</p>	<p>Further implications/ implementations of the topics through case studies/ multiple scenarios.</p>	<p>Group-work practices Pair-work—role-plays Trainee-led explanations of what has been learnt thus far. Trainees should implement what they have been learning thought the previous weeks.</p>
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Attachment1: Suggested References and Resources









Reference- vocabulary lists	
Vocabulary related to everyday English	https://users.utu.fi/micnel/BEC/becposall.htm
English for Nurses and Medical Professionals	https://www.englishclub.com/english-for-work/medical-vocabulary.htm https://www.englishclub.com/english-for-work/medical.htm
Human Body	https://www.englishclub.com/english-for-work/medical-body.htm https://www.medicalenglish.com/module/core/unit/1/vocabulary
Doctor's Diagnosis – English Vocabulary	https://www.englishclub.com/english-for-work/medical-diagnosis.htm https://www.englishhints.com/medical-vocabulary.html
Disease and Illness	https://www.medicalenglish.com/module/core/unit/6/vocabulary
English for Medicine and health-care: Teachers' comprehensive reference+ sample activities. Comprehension and selected readings.	https://www.medicalenglish.com/
Book: Check Your English Vocabulary for Medicine 3rd Ed. (2006). A & C Black Publishers Ltd.	http://medicine.kaums.ac.ir/UploadedFiles/Files/Check_Your_English_Vocabulary_for_Medicine.pdf A very helpful workbook for medical vocabs+ answer key.

Attachment 2: Pedagogical practices/ teaching techniques for Technical English Module

1	Putting the term into Context (simple statement: such as texts, readings, videos and audios).	2	Description, definition of terms.
3	Using real objects, props.	4	Board drawing, and pictures.
5	Miming, acting the words.	6	Equivalent/ Synonyms (giving synonyms has to be familiar to trainees) e.g., ancient = old.
7	Opposites/ antonyms (giving antonyms has to be familiar to students) ancient/ recent.	8	Wall charts (e.g. a labeled chart of street scene to convey meaning of items like shops, traffic lights, mosque, market...etc.).
9	Scales – to show differences between words of the same group (never – rarely – sometimes- often – always)	10	Arabic Translation- do not give the Arabic equivalent yourself, but rather ask a trainee to do so. Then encourage them to use it in a sentence.
11	Worksheets, reading and comprehension questions.		

Attachment 3: A List of Suggested Tasks/Activities

Literacy/ Reading Skills

 <p>Timed reading. In class activity, Trainees read, and answer given questions (e.g., MCQs- outline, etc.). Trainer times how much Ss can achieve within a given time.</p>	 <p>Research skills (find a topic that is relevant to the Unit's theme/topic, either Trainer collects some related articles, presents them to class, or has Trainees research that topic). Trainees present a summary of their collection of articles (advanced level-Bloom) Vs. Trainees respond/rationalize to what they found or what Trainer provided (Intermediate-levels).</p>
 <p>Note Taking skills/ Annotating in the margins (practice summarizing /highlighting/comprehension) individual work. Trainer provides a passage/context/scenario...etc. related to the theme/topic. Each Trainee is responsible for one paragraph/segment/part. (Individual work).</p>	 <p>Speed-date Discussion. (pair work). Trainee1+ Trainee2 discuss the main idea of the passage/paragraph/segment they have read, /watched/listened. Trainer times the discussion e.g., one minute per discussion, then Trainee2 moves to Trainee3 and discusses the same for another minute...etc. Trainees take turns in talking about their sections/passages. [in class activity, group work, more than reading is involved—this involves Higher levels of Blooms' Taxonomy as Trainees analyze and not only report the info].</p>
 <p>Written responses; agree/disagreeing with reason through Online Blogs, Discussion boards Wikis etc.</p>	
 <p>Focus on skill integration yet maintaining a primary emphasis on the objective you want to emphasize.</p>	
 <p>Delivering comprehension through other means. That is, Trainees are to understand the information through multiple ways; Trainers are to drill trainees' skills and deliver the content through multiple contexts.</p>	 <p>Online quizzes, online activities. Trainers is recommended to make use of electronic resources.</p>

Communication Skills/ Speaking and Listening



Debates



Interviews



Oral Presentations: these could be informative, or reflective based on a written text, based on a video/audio or based on a given scenario.



Online resources: You could ask Trainees to do projects using a variety of online resources (creating a video that contains audio- picture- text) about a selected topic.



Peer feedback: encourage peer reviews and feedback for any Speaking activity (This will ensure that trainees are interactive and are paying attention by others are presenting avoiding passive listening)



When choosing audios and videos, please consider authentic contexts and not automated ones. Try to make use of the online websites that have listening activities. (E.g., TedX, TedTalks, Podcasts, real contexts/speakers/ scenarios/ documentaries etc.).



Use of simulation and role playing.

Writing

- Involving the overall context, simulations and taking into account the overall discourse (i.e., context). "A discourse-based pedagogy differs from other approaches to language teaching in that it not only focuses on grammar forms, but it also considers the meaning and use of those forms within the larger discourse context" (Nassaji & Fotos, 2011).
- Revised writing assignments which will count for graded credit when students submit the final version to the instructor. Each assignment consists of, for instance, two drafts. For each writing assignment, Trainees will be given a choice of tasks (or set of selection; such as email writing, summary writing etc.). Trainer provides clear guidelines and a model of the final outcome.
- Grades for such task should not only consider the final draft, but Trainers should account for all the process of revision to track the trainees' progress.
- Collaborative writing: small group (no more than 3) work together to complete a writing task.
- Timed Writings: this could be either on a short time such as a period or two, or as a longer process such as the Revised writing assignments.
- Written peer responses/feedback is highly recommended. This will not only emphasize the knowledge and the writing skill but will involve communication skills as well. This could be through online platform postings (responding to a given prompt online on a blog, or a Discussion board). These short tasks are designed to encourage Trainees to read extensively, record their thoughts in writing, and share their ideas with their peers online or in person.
- Self-assessment/ReflectiveWriting:which consists of a thoughtful one page or more commentary reflecting on their own progress over the block and their goals for skills they which to acquire in the near future.

Block Description:

Name	English Prep Block
Duration	6 Weeks
Starting and Finishing Dates	(6Weeks Prior to the start of HA program)—TBA

Block Outcomes:

By successfully completing the English Prep Block, trainees will be able to:

- 1 Recognize the basic literacy skills required to implement in a medical context such as writing medical passages, reading medical information and delivering appropriate written communication.
- 2 Understand the skills used for interpreting Basic English language contexts that are specific to the medical field.
- 3 Demonstrate sufficient understanding of the value-based healthcare, identify its key elements and apply the knowledge of this area in medical contexts
- 4 Assist students to become better "searchers"
- 5 Demonstrate the ability to use basic medical English terminology in written and oral settings to effectively communicate in multiple contexts.
- 6 Recall the contexts of basic medical English language usage in multiple environments.
- 7 Practice medical ethics efficiently and have a solid knowledge of the essential values needed to appropriately and effectively act in an ethical manner at any medical context.
- 8 Utilize all aspects of communication skills to demonstrate effective communication and active listening.
- 9 Differentiate the situations of where trainees should practice certain interpersonal skills in certain situations in basic medical contexts.
- 10 Model the appropriate basic medical English required for interacting and communicating effectively in multiple scenarios within the medical contexts.
- 11 Define basic terminology and technical English language that is medical related.

Admission & selection criteria:

(The criteria are dependent upon the admission for the HA program. this is not an independent program, so it doesn't need unique selection criteria).

6

Block Syllabus and Tentative/Suggested Schedule

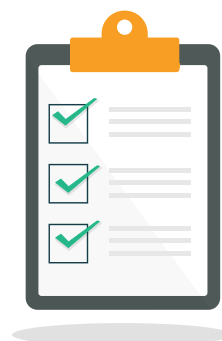
Module outline:

Module No.	Module Name	Meeting Hours per week	Delivery method	Duration
1	Introduction to Medical Literacy	5		6 weeks
2	Value Based	5		6 weeks
3	How to Search	5		6 weeks
4	Communication and Medical Ethics	5		6 weeks
5	Technical English	5		6 weeks

Suggested Weekly Schedule:

(This is a sample for a tentative weekly timetable to give an idea of what the weekly meetings would look like for us to appropriately plan the weekly topics that will be taught)

Day/Time	8-9	9-10	10-11	11-12	12-1
1	Intro to Literacy		VB	Research	
2	Intro to Literacy		Communication and Medical Ethics		
3	Communication and Medical Ethics		VB	Research	
4	Technical English		VB	Research	
5	Intro to Literacy	Intro to Literacy	VB & Research	Communication and Medical Ethics	



Assessment and grade distribution: (TBA)

#	Task	Week Due	Percentage of total assessment score
1	Attendance and class participation	Weekly	10%
2	Quizzes	Week 3- Week 5	20%
3	Course work- assignments (individual and group work)	Week 3- Week 5	30%
4	Final project (oral and written task)	Week 6	40%
5	Total		100%



Module 1:

Introduction to Medical Literacy

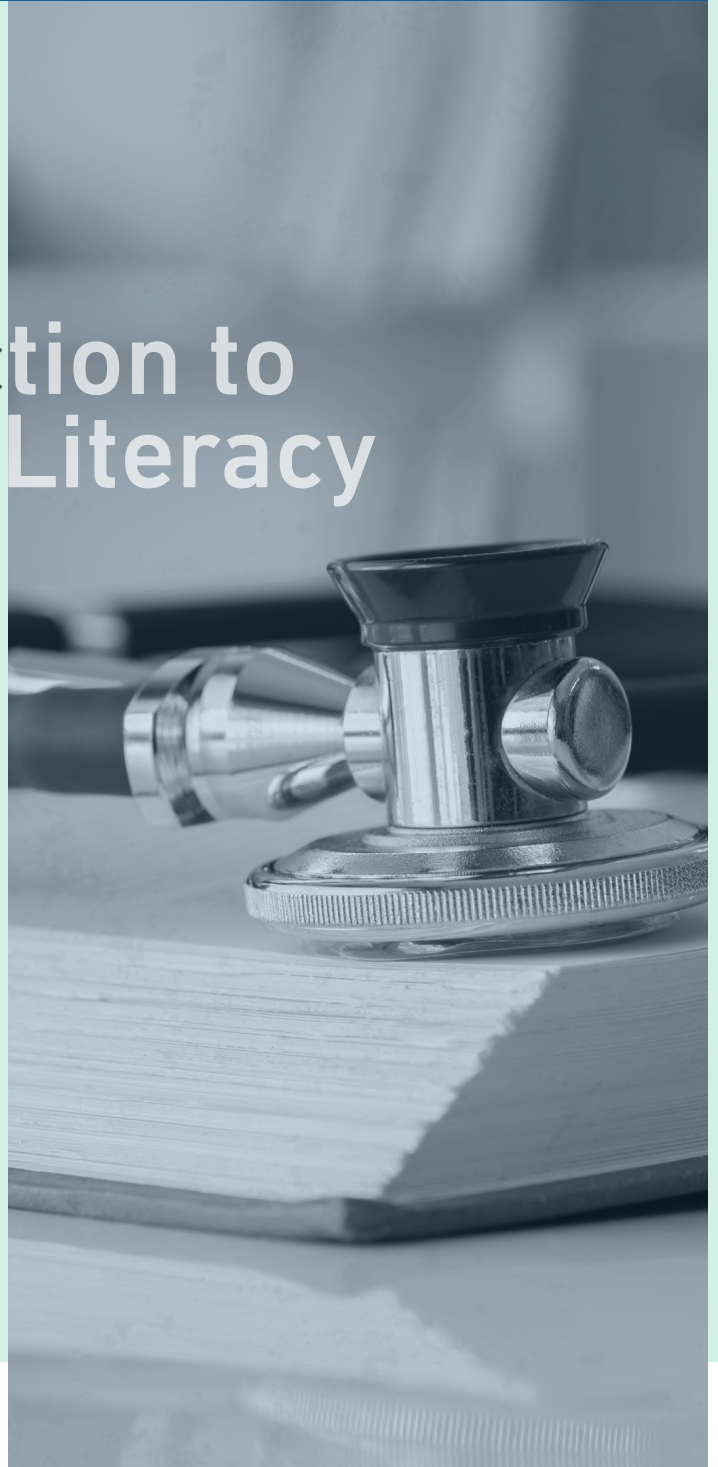


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1

Topic 1: Introduction to Health literacy

I. What is health Literacy?

The definition of health literacy was updated in August 2020 with the release of the U.S. government's Healthy People 2030 initiative. The update addresses personal health literacy and organizational health literacy and provides the following definitions:



Personal Health Literacy

Is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.



Organizational Health Literacy

is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.

These definitions are a change from the health literacy definition used in Healthy People 2010 and Healthy People 2020: “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

The new definitions:

- Emphasize people’s ability to use health information rather than just understand it
- Focus on the ability to make “well-informed” decisions rather than “appropriate” ones
- Incorporate a public health perspective
- Acknowledge that organizations have a responsibility to address health literacy

From a public health perspective, these definitions indicate that people and organizations can use their health literacy skills to improve the health of their communities and its members.

II. The Significance of Health Literacy

Watch the lecture about the significance of health literacy at this link:

<https://youtu.be/4N8QxVkjHRY>

Listen to Dr. Rima Rudd, health literacy expert at the Harvard T.H. Chan School of Public Health, address staff at the Centers for Disease Control and Prevention. In her presentation, “Health Literacy Research Findings and Insights: Increasing Organizational Capacity for Shaping Public Health Messages,” she discusses the following:

- The history of health literacy as a field of study
- Barriers to and facilitators of personal and organizational change
- The impact of health literacy on health disparities
- Health literacy research evaluation

III. Health Literacy and its effect on individuals, communities, and organizations.

Health Literacy Affects Everyone

Health literacy is important for everyone because, at some point in our lives, we all need to be able to find, understand, and use health information and services.

Taking care of our health is part of everyday life, not just when we visit a doctor, clinic, or hospital. Health literacy can help us prevent health problems and protect our health, as well as better manage those problems and unexpected situations that happen.

Even people who read well and are comfortable using numbers can face health literacy issues when

- They aren't familiar with medical terms or how their bodies work.
- They have to interpret statistics and evaluate risks and benefits that affect their health and safety.
- They are diagnosed with a serious illness and are scared and confused.
- They have health conditions that require complicated self-care.
- They are voting on an issue affecting the community's health and relying on unfamiliar technical information.

Why Do We Have a Health Literacy Problem?

When organizations or people create and give others health information that is too difficult for them to understand, we create a health literacy problem. When we expect them to figure out health services with many unfamiliar, confusing or even conflicting steps, we also create a health literacy problem.

II. The Significance of Health Literacy

(read the paper by Cindy Brach, Debra Keller, Lyla M. Hernandez, Cynthia Baur, Ruth Parker, Benard Dreyer, Paul Schyve, Andrew J. Lemerise, Dean Schillinger)

The Attributes

A health literate health care organization (see Figures 1A and 1B):

1	Has leadership that makes health literacy integral to its mission, structure, and operations.	2	Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement.
3	Prepares the workforce to be health literate and monitors progress.	4	Includes populations served in the design, implementation, and evaluation of health information and services.
5	Meets the needs of populations with a range of health literacy skills while avoiding stigmatization.	6	Uses health literacy strategies in interpersonal communications and confirms understanding at all points of contact.
7	Provides easy access to health information and services and navigation assistance.	8	Designs and distributes print, audiovisual, and social media content that is easy to understand and act on.
9	Addresses health literacy in high-risk situations, including care transitions and communications about medicines.	10	Communicates clearly what health plans cover and what individuals will have to pay for services.



2

Topic 2: Written communication skills

Sample Activities to be implemented for this topic:

Writing based on a scenario/ simulation context

Trainees are given a situation/ scenario then they are required to write a passage related to that context. This is different from writing based on a text because in this type of writing, trainees are required to understand the scenario and interpret the scenario in terms of the values, beliefs and contextual elements that determine the type of language they are required to use in that specific scenario.

I. Writing Reports

Instructions:

1	Know that a common type of medical report is written using SOAP method. This stands for Subjective Objective Assessment Plan. The subjective part of the report tells what the patient says about his symptoms in his own words. The objective part of the report details what you see and hear when you observe the patient.	2	Assess the patient after observing her problems and symptoms. When you write a medical report, this is where the analysis of the condition is noted. Tell what conclusions can be drawn to assist the diagnosis. Document all the facts accurately and concisely. The information of the report must be timely and confidential so that it can serve a legal document if necessary.
3	Write the Plan part of the Medical report. The plan includes the overall treatment any medications used and any other therapies involved in caring for the patient.	4	Note any problems when you write the medical report. Write the date and time beside each entry. Enter the medications or treatments as given. Never skip lines when writing a medical report.
5	Draw a single line through any error you make when you are writing a medical report. Never erase or white out an entry. Put your initials beside the error line.		

GENERAL PRINCIPLES FOR COMPLETE DOCUMENTATION IN MEDICAL RECORDS

It is a Medical Transcriptionist job to interpret and transcribe dictations by physicians and other health professionals regarding patient assessment, work up, therapeutic procedures, clinical course, diagnosis etc. But as a physician you must be aware of the general principles for complete documentation of medical records to ensure that these are written or transcribed into a record. The nature and amount of physician work and documentation vary by the type of service performed the place of the service and status of the patient. The following principles are applicable to all types of medical and surgical services in all settings.

1	The records must be complete and legible.	2	Each patient encounter should include the following documentation: <ul style="list-style-type: none">• Date• Reason for the encounter• History, physical examination prior diagnostic test results• Plan for care• Name of the observer• Sign of the observer• Diagnosis (assessment, impression).
3	Rationale for ordering diagnostic or other services, documented or inferred.		
5	Progress and response to treatment, changes in treatment and revision of diagnosis documented.	4	Health risk factors identified.
6	The reasons for negative results of X-rays, lab tests and other services should be documented or included.		

II. Writing Emails Professionally

Professional Email Message Guidelines

Look at the sample (provide samples to trainees and let them analyze what is included in the email).	Provide trainees with good examples, average and weak ones. Let them then write their own emails to apply what they have learned.
Use a compare and contrast approach to let trainees identify what should be included and what should be omitted.	Provide trainees with a list of opening phrases, closing ones and fixed phrases that are commonly used when writing an email.

Samples of well written Professional Emails:

Sample Email Message #1: Resignation Letter

Subject Line: Resignation – Bob Smith

Dear Ms. Jones,

I'm writing to submit my resignation for my position as unit coordinator at Town Hospital, effective June 10.

I'm more grateful than I can say for all your support and assistance over the past five years. Working here has been a first-class education in teamwork, healthcare administration, and getting the job done. I'll miss working with you all, and hope you'll stay in touch.

Please let me know if I can be of any assistance during the transition.

Sincerely,

Bob Smith
B.Smith@email.com
555-123-4567

Sample Email Message #2: Referral Request

Subject : Cynthia Dailey—Referral Request

Dear Barbara Cho,

Recently on LinkedIn, I spotted a job ad for the position of marketing assistant at XYZ Corp. As I know you've been there for several years now, I wondered if you might be willing to give me a referral for the job.

I was especially excited to see that the job involves working heavily with your team on email marketing and social media campaigns. Since we last worked together at ABC LLC, I've gained extensive experience with HubSpot, Google Analytics, and SurveyMonkey. I'd love to put these skills to work for XYZ.

I've attached a copy of my resume and a link to my portfolio, so you can see my recent experience. Please let me know if you have any questions or if you'd like to see further samples of my work.

Best,

Cynthia Dailey

cynthia@email.com
portfoliosite.com/cdailey
555-091-7865

What to Include in Your Email Message

Subject Line:

The subject line should concisely convey your purpose for writing. Your subject line can be as simple as "Thank You" or "Request for Recommendation."

Greeting:

Even if you are writing a very short email, include a greeting. If you know the name of the person, include it. Unless you are on a first-name basis with the person, call them by their title.

Length:

Keep your email as concise as possible. People tend to skim long emails, so only include essential information.

Closing:

Sign off with a brief "Thank you," "Best," or another simple send-off, and then your name. Most email accounts let you embed a signature with your name, title, and contact information into every email. It is a terrific way to make each correspondence more professional.

What to Include in Your Email Message

Font Style:

Avoid ornate, playful, or colored fonts; these simply distract the recipient from your actual message.² Avoid overusing bold and italics as well, which make an email look cluttered. Do not write in all capital letters either; this comes across as angry or overexcited in an email.

Emoticons:

Do not include emoticons in a professional email; save these for personal correspondence



3

Topic 3: Taking notes, Clinical Patient notes, etc.

Sample Activities to be implemented for this topic:

- Writing based on Debates and class discussions
- Writing based on oral presentation: Oral presentation of the writing topic can be done through:
- Providing a case/ scenario to the trainees and asking them to write the clinical notes/ take notes as they listen to the other person speaking.
- Asking a series of Qs to elicit ideas & information about the topic.
- Building up an outline or a list of key expressions on the board the trainees can use as a basis for their writing.

I. Sample of clinical notes guidelines retrieved from the University of Washington Psychiatry Residency :

A GUIDE TO WRITING CLINICAL NOTES

There are several purposes for clinical notes. These include:

1	Documentation of your/your team's visits with the patient and of the clinical care that you have provided.	2	To help you to recall important information, your clinical decision-making, and your overall treatment plan.
3	To track the progress of treatment over time.	4	Supervision and review of your work by your faculty attendings/supervisors.
5	Provision of information to other health care providers to facilitate treatment, relay recommendations, and/or coordinate care.	6	Documentation of your visits/services for insurance companies and billing.
7	To justify and document laboratory or other testing and any consults you have requested.	8	To document safety issues, their assessment and management.

Content of Notes

Many different people, with varying needs and interests, will read your notes. This table (from “Clinical Documentation Guidelines” by Michael Jibson MD, University of Michigan) gives examples of the kinds of information relevant to or required by different readers:

Treatment Team/ Covering resident	<ul style="list-style-type: none">• Diagnosis• Problems being addressed• Treatments being used• Effectiveness of the treatment• Side effects• Legal status	Mr. A is a 45-yr-old man with major depressive disorder admitted voluntarily for suicidal ideation. He continues to tolerate titration of citalopram without side effects, but notes no change in his mood or suicidality.
Payors	<ul style="list-style-type: none">• Reason for continued hospitalization• Services that are being provided	He requires continued inpatient care because of his persistent suicidality. Contact and coordination time: 45 min. He was seen and discussed by the treatment team. We met with family for 25 min to discuss his diagnosis, treatment, and follow-up.
Risk Management	<ul style="list-style-type: none">• Safety assessment• Rationale for treatment	Mr. A has moderate-high suicide risk due to his current depression and hopelessness, recent suicide attempt, and continued expressions of suicidal ideation. Protective factors include his active involvement in treatment, prior response to medication, and good family support.
Next Providers (e.g. discharge summaries)	<ul style="list-style-type: none">• Degree of patient cooperation• Challenges to treatment	Mr. A was admitted voluntarily, was cooperative with staff, attended groups regularly, and consented to all recommended treatments.

We suggest that your notes include information important as part of the formal medical record, to meet the goals listed above. This includes:

Date of service	Risk assessment and measures taken to increase safety
Treatment plan	Your assessment, clinical reasoning, and diagnoses
Duration of the visit	Mental status examination

For follow up visits, the patient's subjective report of symptoms or issues, any medications and dosages, adherence to treatment, side effects, therapy homework, use of other medications or substances, other medical problems, safety issues (e.g. suicidal or homicidal ideation)	Any physical examination findings (e.g. weight, blood pressure), laboratory or other testing results, symptom rating scale scores
Type of visit (e.g. initial evaluation/admission note, inpatient progress note, consultation, psychotherapy visit, medication management visit)	Presence of other people (e.g. patient's spouse, an interpreter, your attending) or any other unusual circumstances
Type of visit (e.g. initial evaluation/admission note, inpatient progress note, consultation, psychotherapy visit, medication management visit)	Documentation of discussions regarding alternative possible treatments and informed consent, including discussion of common and serious medication side effects

Style/ format of the notes

Your notes should be concise and easy to read. Standard rules of grammar and spelling apply to medical notes. Please write in full sentences and always proof-read your notes for accuracy, clarity, and grammar. Be sure to check spelling before sending your note to your attending for review and signature.

Only use abbreviations if they are standard and familiar to anyone in the medical profession (e.g. SSRI, OCD, but NOT abbreviations such as SA, BPD, AVH). Individual medical centers prohibit certain abbreviations that may be easily confused with other abbreviations (e.g. QD, QID). You can use macros to expand abbreviations to make typing frequently used terms more efficient. For medications, brand names should be capitalized (e.g. Lexapro) while generic names are not (e.g. escitalopram).

4

Topic 4: Writing ethics and finding valid references.

Sample Activities to be implemented for this topic:

Have trainees compare and contrast trustworthy vs. invalid resources and identify why they are categorized as so. Have trainees lookup valid resources and identify the characteristics of why they are considered valid. Have trainees lookup and research a certain topic, then list the references of where they may find information.

I. Working With certified and valid references, Libraries and Other Community Organizations

Evaluating your sources

before you select an online resource, you should ensure that it is reliable. Here are seven different items you can use to judge the quality of the contents:

Is it accurate?	Does it say what sources the data are based on? Compare the data with other sources.
What authority is it based on?	Find out who authored the pages, and whether they are recognized experts or are issued by a reputable organization. You may need to track down the 'home page' to get to the details. Web addresses that end in 'ac' (meaning academic) are likely to be university or college addresses and therefore point to some intellectual credibility.
How detailed is the information?	Is the information so general that it is of little use, or so detailed and specialized that it is difficult to understand?

Is it out of date?

Pages stay on the Web until they are removed. Some have obviously been forgotten and are hopelessly out of date. Try to find a date or when it was updated (perhaps on the View-Page Info option on your web browser).

**Have you
cross-checked?**

Compare the contents with other sources of information such as books, articles, official statistics and other web-sites. Does the information tally with or contradict these. If the latter, can you see why?



5

Topic 5: Quoting, paraphrasing, and summarizing.

Sample Activities to be implemented for this topic:

Have trainees understand the concepts of Quoting, paraphrasing, and summarizing; then let them use one piece of information and apply all three skills to the same context. Use a table/chart to look at the differences/ similarities of the written context.
Have trainees per review each other's work and analyze/ provide feedback to their peers.

I. Using formal written English:

- Formal and informal writing are different, look back to the professional emails trainees have practiced. Compare and contrast an email written to a friend vs. another one written to an employer and/or a patient.
- Have trainees identify the phrases that could be used in a formal context as opposed to phrases that are not acceptable.

II. Paraphrasing, summarizing and Quoting

Have trainees practice what they have researched already from the previous topic to rephrase that information using their own words and expression. Make sure they understand the concept of paraphrasing as a means to restate information without changing the ideas at all.

Steps to Effective Paraphrasing

1	Reread the original passage until you understand its full meaning.	2	Set the original aside and write your paraphrase on a note card.
3	Jot down a few words below your paraphrase to remind you later how you envision using this material. At the top of the note card, write a key word or phrase to indicate the subject of your paraphrase.	4	Check your interpretation with the original to make sure that your version accurately expresses all the essential information in a new form.
5	Use quotation marks to identify any unique term or phraseology you have borrowed exactly from the source.	6	Cite the source (including the page).

Summarizing

is writing the information in a short format. Not including the unnecessary details such as statistics, numbers, percentages and/or detailed explanation.

To write an effective summary



DO

Ask yourself Three main questions: What is the main idea of the source text? What details are necessary? What is the shortest way I can get the point across?



DON'T

Add unnecessary details; include your own analysis in the summary.

Quoting

is to report what others have said using their words. When quoting, you use quotation marks and the person's name/ title to cite/ reference the original words.

References:

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3. <https://nam.edu/perspectives-2012-ten-attributes-of-health-literate-health-care-organizations/>
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Module 2:

Value Based Healthcare



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Objectives

Course Learning

- 1 Describe Value Based Healthcare, Patient Experience and significance of improvement of Patient experience in Value Based Healthcare (VBH)
- 2 Illustrate various terms related to Value Based Healthcare, Patient experience and difference between Patient engagement & experience.
- 3 Discuss the benefits of Value based healthcare and its key elements.
- 4 Explain the role of various healthcare team members in Patient experience providing Value based healthcare
- 5 Discuss strategies to implement VBH and improve Patient experience

1

Describe Experience and significance of improvement of Patient experience

We all have experiences every day, both good and bad, but have you noticed that the better or worse the experience is, the more people you tell? It's true that we all experience things slightly differently and each experience itself is made up of a number of experiences, or 'moments', that are all measured against our original expectations. In the retail, travel and hospitality industries, these 'moments' are big business and often, without us consciously realizing it, our senses are stimulated and emotions evoked by these carefully orchestrated 'moments'

Patient experience:

'Patient experience' is what the process of receiving care feels like for the patient, their family and care takers. It is a key element of quality, alongside providing clinical excellence and safer care. The way that the health system delivers its care and support services – from the way the phone is answered, to the way the General Physician examines them or the nurse explains what is happening – has an impact on the experience the patient has. If safe care and clinical excellence are the 'what' of healthcare, then experience is the 'how'. Starting with the patient, listening to their needs, and designing the experience to meet these needs is achievable and results in an environment where individual patients feel cared for and supported.

Activity - Presentation:

Think back to your last interaction with a health service, either as a patient, family member, care taker or friend, can you remember how you felt and what made you feel like this? Provide your analysis on how the experience could be improved.

Why we should Improve Patient Experience?

Making the case for change Improving patient experience is about working with the people who use services to make these services better. It is about designing services that meet their needs and it requires a commitment to doing this on an ongoing basis, day-by-day and year-by-year. Evidence from the commercial sector and from across health services shows that the staff who work in the system, at all levels, need to be engaged in the improvement process for it to work. Evidence from healthcare organizations There is a growing body of evidence (see Supporting research below) to convince business leaders across the service of

evidence (see Supporting research below) to convince business leaders across the service of the importance of investing in improving patient experience. It is likely that structures, such as the NHS Commissioning Board, the new Improvement Body, the NHS Trust Development Authority and Healthwatch England will continue to add to this body of evidence. This evidence illustrates:

The impact of experience on organizational reputation (ie if patients have a poor experience of care it can damage an organization's reputation)

The link between experience and health outcomes (ie patients who have a better experience of care generally have better health outcomes)

That experience is improved when people have more control over their care and the ability to make informed choices about their treatment

The link between experience and cost of care (ie poor experiences generally lead to higher care costs as patients may have poorer results)



2

Illustrate various terms related to Patient experience and difference between Patient engagement & experience

Understanding patient experience and engagement – what's the difference?

The language barrier; recent research commissioned by the NHS Institute (Gill Ereaut, Linguistic Landscapes, 2013) in partnership with National Voices⁵, has revealed that the language we use to try and describe this desire for a different relationship with the people who use health services is often confusing and has some significant features:

- Lots of different terms are used and these are often combined– for example 'Patient and Public Involvement and Engagement' (RCN); 'Patient and Public Voice and Information' (NCB); 'Patient and Public Experience and Engagement' (a network). Terms seem to be piled up like this because none of them quite expresses what people are seeking to do
- These terms have not been found to be engaging, are often felt to be confusing, and seem to have been unable to help bring about real change

Importance of patient and public engagement and patient experience

Patient and public engagement is the active participation of patients, care takers, community representatives, community groups and the public in how services are planned, delivered and evaluated. It is broader and deeper than traditional consultation. It involves the ongoing process of developing and sustaining constructive relationships, building strong, active partnerships and holding a meaningful dialogue with stakeholders. Engaging with patients and the public can happen at two levels:



Individual Level

my say' in decisions about my own care and treatment



Collective Level

'my' or 'our say' in decisions about commissioning and delivery of services.

Effective patient engagement means involving patient cohorts (patients with common conditions) in helping to get the service right for them. It is also about engaging the public in decisions about the commissioning, planning, design and reconfiguration of health services, either pro-actively as design partners, or reactively, through consultation. Effective engagement leads to improvements in health services and is part of everyone's role in the health-care system.

Patient experience is what the process of receiving care feels like for your patients. Understanding patient experience can be achieved through a range of activities that capture direct feedback from patients, service users, care takers and wider communities. These are used alongside information on clinical outcomes and other intelligence to inform quality improvements, the way local services are designed and reshaped, and contractual arrangements with providers. There are many different ways to understand the experiences of patients and care takers – from questionnaires or analyzing complaints, through to Experience Based Design approaches. Using experience to design better healthcare is unique in the way that it focuses so strongly on capturing and understanding patients', care takers' and staff experiences of services, not just their views of the process.



3

Explain the role of various health-care team members in VBH & Px

Improving patient experience involves both those staff who have direct patient interaction, such as porters, reception staff, telephone operators, doctors and nurses, and those who work more indirectly, such as managers and corporate staff. Everyone needs to understand and subscribe to the organization's commitment to improving patient experience and delivering VBH. Commissioners also have a crucial role to play, as outlined below, and it is impossible to overstate the role of leadership. The characteristics shared by organizations that have successfully used patient experience to drive service improvement. A management board that is committed to, and accountable for, patient experience comes top of the list.

The crucial role of leaders

Like any improvement program, strong leadership is vital for improving patient experience. In order for patient experience to improve across an organization, the person with primary responsibility for managing patient experience needs to engage colleagues and the senior team so they understand fully what patient experience is and what it means for the organization. In addition, plans need to demonstrate how to gather feedback; the process of identifying and implementing improvements with patients and staff; and what the benefits will be for patients, staff and the organization. For patient experience information to be used effectively within an organization, that organization needs to be prepared to change. This requires fully engaged leaders who can act as role models and support the required change. The management board should make a conscious decision to focus on patient experience and support the development of the patient experience improvement priorities, vision and strategy for patient experience

There are 10 key things that leaders need to do to support the improvement of patient experience:

1	Own and drive the patient experience agenda and offer strong direction and leadership.	2	Ensure that leadership is visible and accessible (e.g. executives/board getting out and about).
3	Ensure that staff are empowered to make changes to improve a patient's experience.	4	Model good management from the top: embody behavior that reflects the patient experience vision and values: kind, compassionate, caring, empathic, respectful, informative, efficient and professional.
5	Enable patients to tell their story of care by providing staff with methods and skills to capture patients' stories.	6	Set up work processes that allow time and space in the day to achieve the patient experience improvement objectives.

7	Ensure that feedback from patients is turned into action plans that are carried out and evaluated.	8	Enable staff to gather feedback from patients and make improvements at the point of care.
9	Set up processes so that staff have a means of capturing feedback in real time	10	Include real time data as part of organizational patient experience data

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Module 3:

How to Search

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1

Picking the right search terms

Lesson's 1 Overall goal:

Students will be able to pick the right search terms



Picking the right search terms...

Beginner Lesson 1

Updates by:
Daniel M. Russell (12/22/2019)

Originally created in June, 2012:
Tasha Sengco-Mitchell
Kitty Goss

New update: I've added links to
other Search Education content
on the [last page of this slide deck](#).

<https://docs.google.com/presentation/d/1QbCY8VowB98NsIEcorc-b09HR3Ef30tki3jJSHJuKErE/edit#slide=id.i104>

2

Understanding Search Results

Lesson's 2 Overall goal:

Students will be able to evaluate search results.

Guiding questions:

What appears on my search results screen?

Are there problems with the results, or are they on target with my task?

What do I need to know to help me choose the right links?

LESSON OVERVIEW:

In Lesson 2, students identified queries around a research project. In this lesson, they learn about the elements they can expect to see in the Google results page and identify its parts (e.g., search bar, ads, natural results). They zero in on an individual search result from a query and use knowledge of its parts (e.g., web address, snippet) to make educated decisions about what the source page might contain. At the close of this exercise, students use the query from the previous lesson to anticipate web page content based on web addresses and provide a rationale for why they would choose certain sites. In the next lesson, students learn strategies to build on search results to search for and collect evidence.

RESOURCES/MATERIALS

Beginner "Understanding search results" presentation[EMA1]

<https://docs.google.com/presentation/d/1KQg1jH5zPK2tXP4CIHcP-FyeGMhcX81mh2BpAzbWUbeg/present?slide=id.i0>

- Internet access (optional, but recommended)
- "Search Results Page" (provided)

ESTIMATED TIMING

- Approximately two 50-minute lessons

LESSON DETAILS:

1

Explain to the students which steps they should take, where they should develop: queries using key search terms tied to their research projects. (they can watch this video prior to attending the course

<http://www.youtube.com/watch?v=BNHR6IQJGZs>

2

In this lesson, students will learn how to type in these queries and examine a search results page. Today they will look at search results pages and learn what information they give to help guide you through the research process.

3

Examine and discuss results of a search page

- Recall how search terms are interpreted to gather information.
- Emphasize that search engines cannot truly understand the context of a query the way a person can, and that they function by matching the words you type in to the words that occur on various web pages. Therefore, it is not surprising that many similar search results appear.
- Go to Google.com and conduct a search for the query) Central Processing Unit)
- You might say: "There are other times when, for a variety of reasons we will explore today, some results are better matched to my particular need than others. If I were looking for information on the topic that includes two terms (Central Processing Unit), my first screen of results might look like this.
- What is going on in these results?" Emphasize to students that the search was intended for seeking information on the Central Processing Unit in a medical field. Your students might note that many of the results are about the electronic circuits, rather than the full-term Central Processing Unit in a medical field, and the query isn't specific enough. Ask students if they can point to cues on the page that indicate certain results are about the band. Restate that search engines cannot "understand" which interpretation of the search term a searcher intends, they can only match patterns of terms. Ask them what cues indicate that some of the results are about electronic circuits. Students might identify cues in the actual title, the web address, a snippet (definition below) or even ads that appear. Laud them for these keen observations stating that this lesson will go into more detail about what appears on the screen.
- Tell students that in their search process they should always carefully look at their results to make educated decisions about where to click. In fact, advise them to look past the first screen of results, and even past the first whole page to make smart decisions. Advise them to look at: What appears on my screen when I get results for a search? Are there problems with the results, or are they on target with my task? What do I need to know about in Google's results to select the right link for my task?

4

Explore the search results page.

- Explain that each time a search engine lists a page of links to sources that it found for your query, it is called a search results page.
- Go to Google.com and search for [flag] (Slide 3), or a search of your liking that brings up results with advertisements.
- Identify the major parts of the search results page, recalling information from the "How Search Works" video from the previous lesson. Below is an explanation of each item to share with students as it relates to what they see on the screen. You might define each term, pause for quiet time as students locate it on the screen, have a volunteer come to the front and point to where each item is on the screen, and then ask classmates to confirm.
 - Search bar: near the top of the results page, where you can see your query and modify it or enter a new one. Slide 4.
 - Ads: results appearing in the right-hand column, and sometimes at the top of the results in a colored box. These results appear because someone paid for them to be there and only appear if they are relevant to your search. They always are marked with the word "Ads," so you can identify paid results. Slide 5.
 - Natural results: These results are not paid for by anyone and cannot be bought. Google asks over 200 questions about how your query matches different pages it found on the web when deciding which pages to feature and in what order to list them. One reason search engines do not reveal more about how they rank is they don't want people to be able to manipulate the system and get irrelevant or malicious pages highly ranked in the results. Slide 6.
 - Filters: the subject of later lessons, these links in the top navigation menu, just below the search bar on the results page allows users to look specifically at results in one kind of media, or otherwise narrow the results. Slide 7.
 - Knowledge Panel: When you search for an entity, such as a person, place, book, movie, character, animal, etc., Google may show a special informational box on the right-hand side of the screen. For example, one appears for the query [brazil]. Slide 8.
- Pass out the "Search Results Page" handout for students to complete individually. Because the look of web-based tools changes frequently, you might want to update the one provided with your own screenshot taken closer to the time of the lesson or on a subject pertinent to your class at that time. Ask students to identify the search bar, ads, natural results, and filters on the screenshot by marking on the handout.

5

Identify the main parts of an individual search result.

- This section focuses on the natural search results as defined above. Elaborate that each individual source that Google identifies as matching your query is called a search result. Run a search, such as [colonial life] (Slide 10), and explain that each result has several parts that can help students decide on which ones to click.
- Define and point out the following components. Invite volunteers to help you identify these components:
 - Title: In blue, the first line of a search result. Slide 12.
 - Web address: In green, just under the title. This is the location of the page on the Web and can help you understand at a glance who is offering you the source, what kind of source it will be, and more. Slide 13.
 - Snippet: The black text under the web address. This text is taken from the source to which the link points and gives an idea of how your search terms appear in the text. It is not a summary of what appears on the link, does not provide full information on a topic, and is not intended to do so. You should always click through to see your search terms (and the information they provide) in context. Slide 14.
 - Bolded words: The words that appear darker on the screen are your search terms. In some cases, Google automatically finds synonyms for your search terms, so if you search for "kid," you might see "child" bolded in your results. Slide 15.
 - Differentiation: For more experienced readers, or older learners, introduce the term ellipses: Google uses three dots (...) in snippets to show places in the source where the search terms appear. Unlike ellipses used in traditional writing to show omission of text but still with a fluid thought, the ellipses in a search result are intended to show where search terms appear in the source, and so can omit portions of the text important to the actual meaning. Remind students that they should not take information from the snippet, but click through to the source itself and see the full text there. Slide 16.

Please note: For students who are writing works cited lists, it is important to note that Google's job is to find matches to your queries and communicate to you why they were chosen so that you can decide on which links to click. As a result, Google is developed to identify relatively unhelpful page titles and auto-improve them, where possible, to something clearer, based on the content of the page. As a result, it is not appropriate to rely on Google search results to tell you the title of a page that you want to cite.

- To assess students on these terms of an individual search result, you might conduct one of these two options: (1) For an informal assessment, feature a web page on the SMART Board, document camera or overhead. Point to different aspects on the page one at a time and ask students to think about what the part is called and raise their hands without shouting it out. After a pause, call on one student to share if it is the title, web address, snippet, a bolded word, or (ellipses). Point to several entries on the page so you have multiple responses to ascertain how well students know these terms. (2) For a more formal assessment, pass out the "Search Results Page" from the previous activity and have students circle and label the terms and then collect them: title, web address, snippet, a bolded word, (ellipses).

6

Read web addresses to get information about the source.

- Explain to students that knowing how to choose the most useful links among the possible results Google offers increases their efficiency and gets them quickly to the best possible source. To begin to get an idea about a source, look at the web address. It is not a sure-fire way to know what type or quality of information the source will contain, but it can give important clues.
- Relay information about Google web addresses, and then tell students that they'll use what they learn to decode a few web addresses. Say to students: "Google usually points you to specific pages on a website, though that might sometimes be the front page, or homepage. It can sometimes be helpful to notice if the website on which the page is located is one you know about and if it is well-matched to your task. Sometimes, the name of the site gives you an idea about the kind of information you will find there. The name of the website is usually in the first part of the web address located AFTER the http and www and BEFORE the "suffix," which typically can be any of these: .com, .org, .edu, etc. However, sometimes a site may not have a www. So the page <http://www.whitehouse.gov> is the White House website. By looking at this key part of the search result, we can predict important information about what the source will include in order to determine if it might be worth accessing. Note that after the .com or .org or .edu, there is a string of other information."
- Differentiation: For individual students or classes with more computer exposure, you might try some of these more difficult web addresses:

[- bohr.winthrop.edu/faculty/grossoehme/link_to_webpages/](http://bohr.winthrop.edu/faculty/grossoehme/link_to_webpages/)
[- personal/InteractivePeriodicTable/PeriodicTable.html](http://personal/InteractivePeriodicTable/PeriodicTable.html)
[- www.history.navy.mil/faqs/faq56-1.htm](http://www.history.navy.mil/faqs/faq56-1.htm)
[- scs.student.virginia.edu/~vjil/PDF/48_249-306.pdf](http://scs.student.virginia.edu/~vjil/PDF/48_249-306.pdf)
[- http://www.triviachamp.com/Greek-Mythology-Trivia-Questions.php](http://http://www.triviachamp.com/Greek-Mythology-Trivia-Questions.php)
[- http://afe.easia.columbia.edu/literature/china/6_8.html](http://http://afe.easia.columbia.edu/literature/china/6_8.html)
[- www.xpmath.com/forums/arcade.php?do=play&gameid=61](http://www.xpmath.com/forums/arcade.php?do=play&gameid=61)
[- www.mathwords.com/i/integers.htm](http://www.mathwords.com/i/integers.htm)
[- www.history.navy.mil/faqs/faq56-1.htm](http://www.history.navy.mil/faqs/faq56-1.htm)
[- britishbattles.homestead.com/eastasia.html](http://britishbattles.homestead.com/eastasia.html)
[- www.redcoat.me.uk/Rev-War.htm](http://www.redcoat.me.uk/Rev-War.htm)
[- scs.student.virginia.edu/~vjil/PDF/48_249-306.pdf](http://scs.student.virginia.edu/~vjil/PDF/48_249-306.pdf)

- Differentiation: Allow students to work individually, in pairs, or trios. As an extension, invite volunteers to visit some of these pages and see how close they were in imagining the content of selected web addresses.

7

Discuss search results.

Using their queries from the previous lesson that addresses their research task (Lesson 1), instruct students to run a search and print out the first page of results. Using what they learned in this lesson, have students discuss with a partner or small group what they anticipate these sites will be about based on the web addresses. Then, ask them to circle or highlight any of the sites they will want to visit and write down why they have chosen these addresses. In the next lesson, tell students they will learn strategies to build on search results to search for and collect evidence.

- Differentiation: Provide assistance to partners and groups, as needed. Collect the annotated results sheet and use it to inform instruction about which students need additional support.

ASSESSMENTS:

- Participation in discussion
- Search results page
- Individual search result: Oral responses or “Search Results Page”
- “What Might You Find in These Web Addresses?”
- Annotated page of results for research project

Search Results Page

Directions: Circle and label the following parts on this search results page:

- (1) search bar
- (2) advertisements
- (3) natural results
- (4) filters

What Might You Find in These Web Addresses?

Web Address	What might you find at each address?
www.math-play.com/Integers-Jeopardy/Integers-Jeopardy.html	
www.bl.uk/onlinegallery/features/americanrevolution/index.html	
www.sjUSD.org/leland/teachers/sgillis/-mapping/hist_of_maps3.ppt	
wiki.answers.com/Q/Where_was_George_Washington_born	

3

Narrowing a search to get the best results

Essential Unit Guiding Question:

How can I narrow my search to get the best results?

Lesson 2:

What filtering strategies help me find accessible sources from the Web?
What are operators and how can I use them to narrow my search?

LESSON OVERVIEW:

This lesson builds upon Lesson 2 as students learn to use filtering and operators narrow their searches and solve problems that appeared in their search results. Students who know what the filtering tools in the top navigation menu of the search interface can do for them have more ways to uncover academically valid information. Operators are symbols that can be added to a query to make it more targeted. Within this exercise, students experiment with various filters and operators that are relevant to the level of work they are currently, or merely using these strategies for their own research work to get undertaking and see how the sources they uncover can change their results. It culminates with students creating a real-life usage guide for the classroom or for a family member, as an optioher more targeted evidence. In the next lesson, students learn strategies to build on search results to search for and collect evidence.

RESOURCES/MATERIALS:

- Beginner “Narrowing a search to get the best results” Lesson Presentation (individual slides linked to proper locations below)
- Internet access (optional, but recommended)

ESTIMATED TIMING:

- Approximately two 50-minute lessons; teachers might conduct a lesson on filtering one day and operators on another; these lessons do not need to be taught on consecutive days

NOTE TO TEACHER: Throughout this lesson, there are opportunities to click links for search results if you have live Internet access. These links are expressed within most query brackets (e.g., [constitution]). If you do not have Internet access in your classroom, click the links for slides (e.g., Slide 7) prior to class and print out screen shots to show on a document camera to your students, on an overhead, or through hard copies. In some lesson points, there are slides only as an instructional tool. Also, please note that the actual square brackets around each query should not be typed into Google. They represent what words and phrases should be actually typed into the search box.

LESSON DETAILS

1. Set the stage. Mention to students that they started to learn how to look at their results pages. Explain that now they will learn about two different tools to narrow searches: filtering and operators. When they feel that their results are not working in the way they anticipate, sometimes these tools can help fix the problem. In the first—filtering—students narrow down their options of what they find in a search by accessing different Google filters that are available. For example, scientific diagrams might be a useful source to find facts for a research project. A searcher can zero in on scientific diagrams by using a filtering tool.

2. Identify location of filtering tools.

- Show students where Google situates filters on a screen. If Internet access is unavailable, use Slide 2. For those with Internet access, run a simple one- or two-word search such as [Stonehenge] (Slide 2). When you reach the results page, point out the top navigational panel of the screen that lists the filters. Look at the filters that appear when you click on the “Search tools” button on the right-hand end of the menu. Slide 3.
- Demonstrate to students how to click on the “Search tools” button (Slide 3) in order to view the filter menus, and then click on one menu to access a specific filter. Explain that filtering is beneficial because it narrows a search to help target more of what a researcher needs. Filters take the results for a search that was just conducted and sifts through all of them to find only specific items that meet determined criteria.

3. Demonstrate how to narrow a search to collect different items. Provide a topic for students or let them choose one. Instruct them to experiment with using filters for this topic and discuss what they observe. If you have limited computer access, model this for the class or allow small groups to convene around a computer and take turns experimenting with filters. You can decide which filters to click that provide the most benefit for your students, but the following filters that are featured on the screen might help at a Beginner level:

- “Sites with images”: In this filter, searchers conduct a regular Google search rather than a search in Google Images. Put in a query, such as [electromagnets] and hit enter, then use the top navigation menus to access the sites with images filter (Slide 4). This tells Google to give preference to sites where the text matches your query and that also includes a number of images. Some students might find it difficult to navigate text-based results pages and will go to Google Image results in order to choose a page to read. This strategy does not allow them enough written context to make an educated decision about which site to try since it is an image only.
- Instead, sites with images provide text with the images. This filter can help students determine whether a site is commercial; offers diagrams, statistics, or other technical information; presents illustrations to enhance emotional reactions; and so forth.

In this way, sites with images can provide extra scaffolding for students who find reading online challenging. It also gives students who have keen observation skills additional information as they study the web addresses and snippets that accompany the image to determine if these particular sites are useful to their task.

- “Dictionary”: Not precisely a filter, the dictionary link in the filter menu searches both a formal dictionary and the broader web for definitions. Demonstrate with a current vocabulary word for the class, such as [burrow] Slide 5.
- “Reading level”: Assesses the vocabulary level and sentence structure of the text on each page and categorizes it as basic, intermediate, or advanced. Try a search such as [Florence Nightingale] Slide 6. Note that the first view of Reading Level gives an estimate of the percentage of sources for the topic that are at the basic, intermediate, or advanced reading level (Slide 7). Then, students can click on the desired reading level to filter for only basic, intermediate, or advanced sources (Slide 8).
- Demonstrate that when students are done using a certain filter, they can turn it off by looking at the right-hand end of the filters for the “Clear” link (Slide 9). Clicking on the X will turn off the filter. Classes with live Internet access should demonstrate that running a new search without turning off the filter brings back results with the same filter still applied.

4. Make the most of an Image search.

- Now direct students’ attention to the top navigation menu of the search screen once more and locate “Images.” This is a different tool than sites with images which finds pages with multiple images and has more text accompanying the images in the result, as explained above. Use a search like [Caldecott winners] and use the top of the top navigational menu to navigate to Google Images. An Images search has several filters with both dramatic impact and deep usefulness when combined with concepts such as common factors (Slide 11). Point your cursor on “Search tools” button, and open and explore to see the many options for this filter, such as Size (e.g., large, medium, icon, etc.), Color, Type (i.e., face, photo, clip art, line drawing).
- Remind students that they can often identify sources they want more easily if they are able to identify a common factor to the sources they want. As an example, pick a popular local sports team (baseball, football, soccer tend to work well, but always run the search first during prep time to check). Explain that you want pictures of them in action, but demonstrate that when you run a search for their name (e.g., [Texas Rangers], [Chicago Fire], [New England Patriots], etc.) you get a lot of logos (Slide 12), and maybe other subjects mixed in. Ask students to picture in their heads what a series of images of the team in action might look like, then ask them to look at the filters above the images. Is there any way to filter for a common factor that will show lots of pictures of people playing? A student may suggest: “Try filtering for green, so that we can see the grass on the field.” (The same might work for a basketball team with orange or brown for the court.) Demonstrate how this works or allow students to experiment individually if they have computer access or use the screen shot in Slide 13 if there is no Internet access.

5. Apply strategies.

- Have the students work individually, in pairs, or small groups to create a guide for use in the school computer lab or for those at home who access the computer. It may be in the form of an instruction sheet, visual aid, screen capture video, or other work product. However, it must introduce one or more filters, and give at least two examples of times the intended audience would need to use that filter in real life. You might have students work on this guide after they have learned about operators, which are the following set of tools, or merely leave room on their guides to include operators later.

- Instruct students to use the strategies they learned to continue researching for their own projects. If required, remind students to show tangible evidence of their search via note-cards, print outs, outlines, graphic organizers, or whatever vehicle best demonstrates learning.

6. Define operators as a tool to narrow a search.

Mention that filtering is one way to narrow a search. Operators, which are special symbols or words that experienced searchers include in a query to give Google instructions, are another way. Although there are many operators, tell students they will learn three of the most useful ones: the word OR, quotation marks, and the minus sign. Operators are helpful because when a query is entered into a search tool like Google, the tool matches the terms to the sources it knows and gives back pages that match the terms. Search tools bring up results based on the keywords you enter, and words can have multiple meanings. A savvy searcher uses special symbols or words, designated by the particular search tool in use at the time, to express more clearly to the search tool what he or she wants

7. Search using the OR operator.

- Tell students to observe the words Google puts in bold when you run a search such as [gasoline usage] (Slide 14), [raising puppies] (Slide 15), or [American revolution start] (Slide 16). Provide hints so that they notice that the bolded terms in the results (indicating the terms for which Google searched) are not always precisely what was typed in the query. Ask them to share their observations with the class, such as several forms of a word (e.g., US/United States, raising/raise) or closely related terms (e.g., puppies/pups, usage/consumption, or start/begin/began). Explain that it is always worth observing what Google auto-searches as related terms since this you will want to check if this automated process appears to cover everything you need to search. You can also get ideas for new search terms to use across your research process. For example, searching gasoline usage might suggest [consumption] as a term you would like to use later in the project. Students should add any promising-looking terms they learn in this manner to their graphic organizers, outlines, notecards, or other note taking device.
- Explain that sometimes a searcher wants to check for more than one synonym or related term to locate a broader range of sources. That is when the operator OR comes in handy. For example, the tribe called the Ojibwe is sometimes called the Chippewa. Ask students: “I know that both of these names are in use. What will happen if I search for [Ojibwe Chippewa]?” (Slide 17). Students may answer: “You will get only sources that have both of those words.” Or “You may miss sources that only use one of those terms.” Run this search, or a similar one, to illustrate what happens with this type of query.
- Ask: “If search tools look for sites with all the words I type in, how can I tell it to look for either one or the other?” Possible responses: search for only one, then search for the other; use the word or in the query. Demonstrate using OR, which must be in all capital letters, as in the search [chippewa OR ojibwe] (Slide 18). Review the search results as a class to see what happens. Note that sources you get as a result might have both Chippewa and Ojibwe, or may just have one or the other.
- Optional extension: Note any suggestion of other synonyms or related terms, such as the Wikipedia article that lists multiple spellings or synonyms. Students may also note the additional name, Anishinabe. Point out that you can always consider doing a search like [Ojibwe OR Ojibwa OR Ojibway OR Chippewa OR Chippeway OR Anishinabe] (Slide 19). However, note that the number of synonyms and alternate spellings a student should worry about using is really related to the task.

For an elementary school student, the need to find every single possible source is a lot less important than finding a few really good sources. One researcher found over 70 different names for this tribe; trying to cover all of them is not feasible. Remind students that one of the challenges of electronic search is balancing the real needs of your task with the proper level of attention. Sensing when it is reasonable to stop is as important of a skill as knowing when to be thorough.

8. Search with quotation marks (“ ”).

- Now that students know how to use OR between search terms, try a search like [Thomas Jefferson OR Benjamin Franklin] (Slide 20) and observe the results.

Students may notice: Google does not keep “Thomas Jefferson” together, nor does it keep “Benjamin Franklin” together. A very observant student might add: “All the results have ‘Thomas’ and ‘Franklin.’ And they have either ‘Jefferson’ or they have ‘Benjamin.’ Google did not find one whole name OR the other—it found ‘Thomas’ AND ‘Franklin’ AND either Jefferson’ OR ‘Benjamin.’”

- Investigate whether students can identify how to solve that problem. Someone might suggest quotation marks. Inquire into what quotation marks do in Google—the answer should be something like: “They require the words inside them to stay together, in the order they are typed—it is like they glue a phrase in place.” Ask students how they would use the quotation marks to fix the search above, they should offer something like: [“Thomas Jefferson” OR “Benjamin Franklin”]. Slide 21. By using the operator OR along with quotation marks, students can get broader—yet more precise—results.
- Explain to students that typing in a query like [“day at the zoo” giraffe] (Slide 22, Slide 23) won’t give random results with each word individually. Rather, by using quotation marks around an entire phrase, the searcher will get results with that phrase or name as typed in the query. Be aware that even though quotation marks are important to keep a string of words together and reveal results shown exactly inside them, Google has learned to recognize many phrases over time and after billions of searches. Here are some examples: [United States], [to be or not to be], [long division], [climate change], [I have a dream] (Slide 24-28). Therefore, quotation marks are a problem-solving tool, and should only be used if an initial search demonstrates that they are necessary. Invite students to try this usage for quotation marks on their computers.

- Differentiation: For those more advanced in computer skills, have them try usage #3. Explain that when quotation marks are placed around a single word, the quotation marks search for exactly the word you type in. For example, if you search for [bieber’s favorite video] (Slide 29), Google looks for variations on [bieber’s], and offers results about Justin Bieber—Favorite Videos, meaning, those videos made by Bieber that the list author loves. By changing the search to use quotes ([“bieber’s” favorite video], Slide 30), you assure that the singer’s name will be in the possessive form because it searches for the exact way you typed it in. By taking it one step further, [“bieber’s” “favorite video”] (Slide 31), you get rid of results like “Bieber’s Favorite Girl - Lyrics and Music Video.”

9. Solve search problems with the minus sign operator (differentiated for advanced searchers).

Introduce this operator for those who are more adept at searches and ready to go to the next level. For these students, explain that putting a minus sign in front of a word in a query prohibits Google from returning any page with that word on it. For that reason, it can be really helpful if the word you are searching for has various usages, and one usage is getting in the way of you finding information you need. Share examples with students that are in the context of your current subject of study. For example, especially during the football season, a search for the term [Vikings] (Slide 32) can bring back many results about the team. If you are searching for the historical civilization, try getting rid of all pages with the team's location such as: [Viskings -Minnesota] (Slide 33). However, only add minus signs to a search to solve a problem in prior results, as it is too easy to remove excessively. For example, if a museum in Minnesota did an online exhibit on Viking ships, searching for [Vikings -Minnesota] would mean you would never find the pages for it.

10. Apply new knowledge. Consider one or more of these assessments. After this assessment, note that the next lesson focuses students' attention on identifying evidence.

- If students are working on a guide from the previous filtering section, they can include operators as part of this guide.
- Students can create an advertisement, write a brief advice column, write (and present) a short rap or poem, or some other creative output that succinctly illustrates a situation in which someone would use an operator including an example of its use. Students can work in partnerships or small groups.
- Instruct students to use the operators and filters they learned to continue researching for their own projects, documenting the specific problems that arose and how the student solved them with an operator or filter. If required, remind students to show tangible evidence of their search via notecards, print outs, outlines, graphic organizers, or whatever vehicle best demonstrates learning.

EXTENSION:

This lesson is designed to investigate Google's filters, but students can extend what they learned to filters in other search tools at your students' disposal, such as an article database to which your school or district subscribes for student use. In addition, students can compare operators on a school or district database with those presented on Google.

POSSIBLE ASSESSMENTS:

- Participation in discussion and practice on the computer
- Guide to explain filters or operators
- Creative product to explain and provide examples of operators
- Tangible evidence of student search via notecards, print outs, outlines, graphic organizers, or whatever vehicle best demonstrates learning

4

Searching for Evidence

Essential Unit Guiding Question:

How can I search for the best evidence to satisfy my task?

What new words have I learned through my search?

How do I use my search results to help me find new and more information? What is evidence?

How do I find the most appropriate sources and gather evidence for my task?

LESSON OVERVIEW:

This lesson introduces many strategies that follow in sequential order. First, students identify and define new terms from search results they conducted in Lesson 2 and 3. Then they focus on evidence and cite examples of evidence (e.g., fact, example, definition, etc.) from a student sample. To assist them in searching for evidence, they learn the stepping stones method. This teaches them a process for clicking through sources to learn new information, revise their queries, and conduct new searches so they can delve more deeply into their topics. This multi-faceted lesson concludes with students considering types of sources and determining which ones best satisfy their research task. As a culmination, students use the strategies they've learned to search, assess sources, and collect evidence that they need.

RESOURCES/MATERIALS:

- Beginner 'Searching for evidence for research tasks' presentation (individual slides linked lesson points provided)
- Internet access (optional, but recommended)
- "Get Out of Your Car" (provided)
- "Martin Luther King, Jr. Recording Sheet" (provided)
- Note taking sheets while conducting research (teacher provided or student generated)

ESTIMATED TIMING:

- Approximately three 50-minute lessons

NOTE TO TEACHER: Throughout this lesson, there are opportunities to click links for search results if you have live Internet access. These links are expressed within most query brackets (e.g., [constitution]). If you do not have Internet access in your classroom, click the links for slides (e.g., Slide 7) prior to class and print out screen shots to show on a document camera to your students, on an overhead, or through hard copies.

In some lesson points, there are slides only as an instructional tool. Also please note that the actual square brackets around each query should not be typed into Google. They represent what words and phrases should be actually typed into the search box.

LESSON DETAILS:

1. Set the stage. Remind students that they have printed out the first page of results and anticipated which links they might choose for their research projects during the last lessons. Explain that once they are clear about their research question or topic they can evaluate and seek the information they need and gather evidence. Today they will focus on answering these guiding questions: How do I use my search results to help me find new and more information? What is evidence? How do I find the most appropriate evidence for my task?

2. Learn and use new terms from search results.

- Explain that since a research project is a large undertaking, search results can provide valuable information to help them learn more and find better information. It is also important to know what kind of evidence to collect and what sources will provide such evidence.

- Prepare for exercise. To prepare for the next activity, make a list of five simple questions for which the answers are terms or vocabulary words. Try simple searches based on the questions and make sure that students will see the vocabulary words they need to learn in their results. They may look something like the following; however, alter them based on the grade level you teach. This exercise doubles as an introduction to new vocabulary and a search skill at the same time.

- What are animals without backbones called? (answer: invertebrate) Slide 2.

- What is the name for the bottom part of a fraction? (denominator) Slide 3.

- What were those robots called that NASA sent to take pictures to explore the surface of Mars? (Mars rover) Slide 4.

- What are the fundamental units of matter? (atoms) Slide 5.

- What is the process from moving from one country, region, or place to another? (migration) Slide 6.

- What is a word with the opposite meaning called? (antonym) Slide 7.

- **Say to Students** “Take out your search results page, or call it up on the computer. Look at the snippets in your search results. Often when people look at search results, their eyes tend to skip over the words they don’t know. If the word appears in the snippet in a place that makes it seem important, you should be sure to find out what it means. Are there important-looking words that you don’t understand in your search results? [Pause for volunteers to share a few words.] To be an effective searcher, you have to be sure to see those words, in particular, and determine if they might be useful to your search. Usually by learning these words, you will be able to use better search terms which can lead to gaining a deeper understanding of your topic. We are going to practice using your search results to find better search terms.”

• Model for students

- Take one of the questions and convert it to a query. For example, run a search like [Mars robots] (Slide 4) for the question: What were those robots called that NASA sent to take pictures to explore the surface of Mars? Remind students that they needn’t type in the whole question.

- Instruct the class to look at the results and try to determine the term for the robots we sent to Mars. They might suggest rover since it will appear multiple times on the search page.
- Look up the word rover, explaining that it is bad practice to assume that a word from a search result is correct—if you get the wrong word and start searching for it, you will never find the right information. If you have an Internet connection, a fast way to look up the word is to search [define:rover] (Slide 8). Google has dictionary content and will provide definitions. Typing [define:] followed by the word (with no spaces) is a shortcut to this resource (click the More info link to access a full dictionary entry) and which will also provide links to other online dictionaries. Of course, a class set of dictionaries is fine, too.
- Model a new search using the query from the new vocabulary [Mars rover].
ve to be sure to see those words, in particular, and determine if they might be useful to your search. Usually by learning these words, you will be able to use better search terms which can lead to gaining a deeper understanding of your topic. We are going to practice using your search results to find better search terms.”

- **Learn and use new terms from search results.**

- Explain that since a research project is a large undertaking, search results can provide valuable information to help them learn more and find better information. It is also important to know what kind of evidence to collect and what sources will provide such evidence.
- Prepare for exercise. To prepare for the next activity, make a list of five simple questions for which the answers are terms or vocabulary words. Try simple searches based on the questions and make sure that students will see the vocabulary words they need to learn in their results. They may look something like the following; however, alter them based on the grade level you teach. This exercise doubles as an introduction to new vocabulary and a search skill at the same time.
- What are animals without backbones called? (answer: invertebrate) Slide 2.
- What is the name for the bottom part of a fraction? (denominator) Slide 3.
- What were those robots called that NASA sent to take pictures to explore the surface of Mars? (Mars rover) Slide 4.
- What are the fundamental units of matter? (atoms) Slide 5.
- What is the process from moving from one country, region, or place to another? (migration) Slide 6.
- What is a word with the opposite meaning called? (antonym) Slide 7.

- **Apply the method #1.**

Pass out the list of questions prepared above. Instruct students to:

- Enter their own simple searches based on each of the questions,
- See if they can identify the new vocabulary words suggested by the results, and
- Use [define:] to check that each person has found the correct word.

- **Apply the method #2.**

Instruct students to look at their results page from the last lesson and identify words that they do not know and search for these words. As they learn new definitions and information, tell them to create new queries that will help them learn more about their topics. If students respond that they know all the words from the snippets on their results page, then have them click on a link, read more about their topic, and identify new words that they can use for a new query. You might ask students to keep a vocabulary list of terms and their definitions as they conduct this work.

3. Define and identify types of evidence.

- **Read for meaning and compile list.**

Ask students to read the paragraph “Get Out of Your Car” (Slide 9) which is about air pollution. After they read it, ask small groups to highlight statements and/or make an abbreviated list that support the author’s position. When groups are finished, compile a class-generated list based on each group’s contributions avoiding any duplication. Review the list and tell students that it represents evidence that the author uses to support her claim about cars negatively affecting our environment.

- **List and cite examples of evidence.** Ask students if they are familiar with the word **evidence**. Then discuss types of evidence that this author uses and also evidence that students have used in their work. Write types of evidence on the board keeping in mind what is appropriate for your students, such as: facts, examples, definitions, quotes, details, anecdotes, data, statistics. Cite examples from the “Get Out of Your Car” paragraph for any type of evidence. You might read other articles or student samples that include evidence. Explain that in their research projects, students will need to find evidence to convey their information clearly.

- **Recap.** Tell students that in the last activity, they defined unknown words to help them understand their topic more thoroughly and also to create other queries to search further. One type of evidence is to provide definitions, so tell them they should be aware of words that are important to define within their projects. To learn how to find other evidence, tell students they will learn next about stepping stones.

4. Use stepping stone method.

- **Explain the term stepping stones.**

Explain that although search results pages can be helpful in guiding students to evidence, students will need to click through and use the sources themselves to actually gather information. You may say, “As you have learned from navigating around your sources to learn new words, one source takes you on a path to other sources to accumulate information. Visualize a path with stepping stones in which one stone connects to another leading you to a destination. When conducting research, a stepping stone resource is one that provides you with new information that moves you down the path to your final sources. These stepping stone resources may uncover more synonyms for your current search terms to improve your query and also new ideas that help you think about and investigate your topic more deeply. A stepping stone resource may be traditionally accepted resources like a passage from a textbook, a primary source, or a newspaper article. It might also be some webpage that does not meet the quality requirements for schoolwork, but which still provides new information that you can take and verify elsewhere. In fact, a later lesson on credibility can help you evaluate what you find. Wherever your stepping stones lead you, remember to recheck your ultimate task frequently and consider what evidence you might need to satisfy it.”

- **Illustrate how stepping stones work.**

It is useful for students to see how one can take information from a source and use it to create a new query and search further. Modeling and practicing this process is invaluable because students can get stuck in the research process and go off on unnecessary tangents or abort it too early. Since stepping stones can lead people off task, remind students to revisit their research project goals often and ask themselves: Will this be useful information to include as evidence? To show how stepping stones can be used, have all students type in the same query. As they proceed through stepping stone resources, stop at intervals to have students share what they have learned or discovered in the process. It will be an interesting discussion as students compare and contrast what they have each found as they search different sites, learn new information and words, create new queries, and search again. Here are some ideas to guide you in this exercise:

- The first sentence of a Wikipedia article may include alternate spellings or terms. Have students look for alternate spellings and terms at entries such as [Ojibwe people] (Slide 10), [Sheikhs] (Slide 11), or [faster-than- light] (Slide 12). This would be a good stepping stone as students create a new search using the alternate spellings or terms to see where they lead. In addition, Wikipedia is a great resource for identifying other search terms relating to the main topic, suggesting sources, and also exposing new ideas to investigate. Even if you prefer that students not cite Wikipedia, entries can be a helpful stepping stone resource to other information.
- Identify a textbook topic you have been studying and use a passage from the text as a starting inspiration for further searches. Ideally, stepping stones can lead students to new ideas or more authoritative sources. For example, an article on Rosa Parks that notes she was already an active member of the NAACP when she refused to give up her seat on the bus might stimulate a student to find the NAACP website for potentially more information on Rosa Parks.
- Ask students to identify the statistical evidence of further information mentioned in “Get Out of Your Car,” and instruct them to find the original source online.
- Differentiation: Invite students to work in pairs or a small group on their own to devise a query together and conduct a search using the stepping stones method. Some students may use passages from the class textbook, while students with a higher level of readiness may pursue more sophisticated processes completely online. Tell these students that you will meet with them to see what new words and information they discovered as a result of this process.

5. Consider various types of sources to collect evidence.

- **Bridge to new learning.**

Remind students that they learned about the value of defining unknown words and using stepping stones as a search tool. They defined evidence and are aware of various types of evidence they might need to collect. Now it is important that they consider a variety of sources for collecting this evidence. Ask students what kinds of sources they like using from the Web or wish they could access from the Web but aren't sure how. Prompt students with the following: “Suppose I want to learn how to make a really complex kind of paper airplane that none of my friends can make. What kind of source on the Web might give me the best instructions? Or suppose I want to learn more about ruins in Mexico that I read about. How can I see them since I can't travel there?” Most likely, the answer you get will be video for the first example and pictures for the second one.

- Explain that they will be considering sources that are different types of media to collect evidence. You might say: “You are working on your research projects and have created queries based on your topics so you can collect evidence. Remember that evidence includes facts, definitions, details, quotes and other information that you gather to inform others about your topic. Because of the wide variety of sources we now have access to both online and offline, it is important to think broadly about types of sources you can use to gather this evidence. When you limit your search to a particular collection, like works in a certain medium, that is a search strategy called **Scoping**. Today, to think about scoping, we will address the guiding question: **What varieties of sources can we access on the web?**”

- Brainstorm list of types of sources. Help students brainstorm a list of types of sources that can be found on the web by providing more prompts or having students share their own research questions and topics. Then run a simple search like [Squanto] to show the media filters on the Google search results (Slide 13). Several of the filters will be showing, as Google displays those filters that it thinks you may be most interested in for any given search. Therefore, two different searches will not necessarily have the same filters showing but you can access all the filters by clicking on “More.” Demonstrate how to open the longer list of filters.

- Depending upon your search, it will most likely reveal Images, Maps, Videos, Books, and other options, so make sure these sources are on the brainstormed class list. Note that these filters do change periodically, but it will give students ideas about different types of sources available. Help students to expand the class list to include other sources, such as journal, graphs, tables, letters. When there are types of sources, such as journals, graphs, tables, and letters, ask students to suggest in which category in the top navigational panel they think they would look to find each. A single type of source might fall into more than one, for example, a table might appear within a text-based article in “Everything” (general web search) or as an image in “Images.”

6. Assess sources.

- Continue to explain that even though the Web has lots of options, **researchers have to think carefully about which source to use to gather the best evidence based on the task**. Remind students of the beginning example about learning how to make a paper airplane. A video would be best to help explain how to make one. Ask: “Would a video be the best source for collecting evidence for all topics? Would pictures be the best source? Why not?” Discuss that the research topic or question would drive what kinds of sources to use to collect evidence.

- Arrange students into groups. Tell them they will be reviewing several sources about Martin Luther King, Jr. to address the overarching research question: **How did Martin Luther King, Jr., impact people around the world?** To respond to this question, tell students they need to provide the reader with some background information and address such questions as: What impact did he have on others? What was his message? Where did he spread his message? How did others react to him? A future lesson focuses on credible sources. Provide each group with several sources from the list below and the “MLK, Jr. Recording Sheet.” Here are links you can access and print as the basis for this activity, or ask students to access the links on the Internet. If you print out the sources, try to use a color printer.

- Exhibit 1 in City of Memphis vs. Martin Luther King, Jr. 1968
- Martin Luther King Draws 4-Month Sentence in Court
- Timeline—Martin Luther King Jr.
- Martin Luther King, Jr.'s U.S. and World Travels, 1960-1968
- Some of the stops on King's tour of India

Instruct students to record the following about each source:

- What type of source is this? (e.g., map, video, journal, etc.)
- What type of evidence can you discover from this source? (e.g., fact, detail, definition)
- Is this an important piece of evidence that supports my task?

7. Determine sources and gather evidence for research project.

Instruct students to turn their attention to their own research projects and use the strategies and information they learned in this lesson to conduct optimal searches, specifically: learning new words and terms, using stepping stones to create new queries and learn more about your topic, identifying appropriate sources, gathering evidence. Determine and provide instructions and/or a recordkeeping sheet for student to use as they conduct research for their projects. In the next lesson, students consider which of the sources they are identifying are of sufficient credibility to use in school work.

- **Differentiation:** Allow students to choose the note taking tool that complements their learning style and readiness levels and helps to highlight the main points and significant details to address their task. This might include notecards, outlines, or a particular graphic organizer.

ASSESSMENTS:

- Vocabulary/term list
- “Get Out of the Car” highlights or list of evidence examples
- “Martin Luther King, Jr. Recording Sheet”
- Research note taking (differentiated)

Get Out of Your Car

Although many people need to use cars, they should consider transportation alternatives to be more conscious about protecting the environment since cars produce pollution. Instead of using a car like a Hummer, people can use public transportation like a subway, bus, or train. Carpooling is another way to reduce pollution since it would result in eliminating cars from the road. According to a “Commuting to Work by State” report in 2009 by the U.S. Census Bureau, Statistical Abstract of the United States, 76.1% of drivers commuted on a national level versus only 10% who carpooled and 5% who used public transportation. This unfortunate statistic shows that a large majority of workers choose to drive their own cars which impacts our environment. However, some of these drivers might commute in a hybrid, which is a car that has a gasoline engine and an electric motor that propels it, which is a more fuel efficient vehicle. I believe we should think more about what automobiles we use so we can lower the amount of pollution in the air.

5

Evaluate the credibility of sources

Essential Unit Guiding Question:

How do I evaluate the credibility of sources and determine which ones to use for a specific task?

What do I need to consider about the sources that I use?

LESSON OVERVIEW:

In this lesson, teachers first lead students in a discussion around the guiding question: What kinds of sources should you use? Next, teachers help students to understand that no matter their task – be it informational report writing or argument – their information should be fact-based and the sources reliable. To do so, teachers conduct an activity around a fictitious site to highlight the importance of using unbiased, reliable, and accurate information. There are opportunities within this lesson for both the Beginner and Intermediate levels, so choose the appropriate links and activities to meet the needs of your students' expertise levels and reading readiness.

RESOURCES/MATERIALS:

- Class-generated list of sources (from Beginner Lesson #4) Internet access (optional, but recommended)
- "Source Information" (provided, and linked to in Presentation for Lesson 5) "Martin Luther King, Jr. Recording Sheet" (provided)

ESTIMATED TIMING:

- Approximately three 50-minute lessons

NOTE TO TEACHER: Throughout this lesson, there are opportunities to click links for search results if you have live Internet access. These links are expressed within most query brackets (e.g., [constitution]). If you do not have Internet access in your classroom, click the links for slides (e.g., Slide 7) prior to class and print out screen shots to show on a document camera to your students, on an overhead, or through hard copies. In some lesson points, there are slides only as an instructional tool. Also please note that the actual square brackets around each query should not be typed into Google. They represent what words and phrases should be actually typed into the search box.

LESSON DETAILS:

1. Set the stage. Students now will start to learn to judge the credibility of a given source. Their level of sophistication for dealing with issues of credibility may vary, so interact with this material as is appropriate for your particular set of students.

2. Pose prompt to students.

Use the Think-Pair-Share strategy in which students think about an answer to this question, partner with another to discuss, and then share out with the whole class: What kinds of sources should you use when completing an assignment [or working on a project]? Make a list of student responses on an easel or whiteboard for students to see. Or you might merely review the list of sources generated from Lesson #4. Make the point, if students have not, that knowing the task helps them determine which kinds of sources to access and use.

If students are coming from the Beginner Lessons, they should be able to talk about different media (e.g., images, videos, books, web pages, news articles) and different types of primary sources, as well (e.g., letters, journals, maps).

If students are coming from Intermediate Lessons, they should additionally be able to name formats of web pages, such as blogs, wikis, and reference sites.

3. Introduce the notion of credible sources.

- As a class, review the list of responses (or revisit the list from Foundation Lesson #4). Ask the question: “Besides knowing what your task is, what is critical about each of these sources if you are going to use them to support a claim or provide information about a topic?” To help them contribute these kinds of entries—reliable, credible, trusted, accurate, unbiased, balanced—conduct an activity and introduce it by saying: “You have generated an impressive list of what you look for when deciding what sources to use. I am going to read you two different excerpts from sites. After you listen, be prepared to answer our question again.”

- Feature “Source Information” on a document camera, handout, or show Slide 2-3. Read each of the two examples one at a time and pause to discuss students’ impressions by revisiting the question: “Besides knowing what your task is, what is critical about using sources to support a claim or provide information about a topic? Or: What do I need to consider about the sources that I use for my task?” Your goal is for students to see that sources should be reliable, credible, trusted, accurate, unbiased, balanced. If needed, create a list of these terms along with definitions.

4. Use your instincts.

- Explain that sometimes content seems so amazing that it makes a reader wonder if it’s true or not. Ask students which of the examples – A or B – seems too good to be true. (Answer: A) Tell them to beware of this type of writing as it can indicate unreliability and inaccuracy. They should ask themselves these questions to help determine if the writing might be largely untrue: Does this information seem unbelievable? Does it make sense to you or others? Does what you read conflict with something you already know to be true? Does the writing seem like hyperbole where something is grossly exaggerated? Is there a way to check this information out so you know whether it is true or not?

Ask students what they might do when they encounter such dubious material. By comparing multiple sources as a search strategy, they can get a sense of the quality of the information. If there is inconsistency among sources, this far-fetched claim may be too good to be true.

• **Extension:** Review old advertisements which are oftentimes riddled with false claims. Invite volunteers to review a website like this one <http://www.oldnewsads.com/> from OldNewsAds.Com that include multiple examples. Students can peruse the website and find a few ads to share with the class – some that appear real and others that are clearly unbelievable. They can share these selections with the class and lead a discussion about which ones appear true and which are far-fetched. You might introduce (or review) the term hyperbole and discuss how advertisers used this to sell products. Today there are laws to protect people from false advertising.

• **In Example B**, it may not sound too good to be true, but it still makes the reader feel skeptical. Encourage students to use the same strategy of corroborating or verifying the information using other sources to help determine if the facts or assertions are true or not. Optional: Have students search the Internet for other stories on the two topics in “Source Information” to validate the accuracy. As with most web searching, educators working with younger students may want to consider using a Custom Search Engine, asking students to search among a pre-selected series of sites.

5. State guiding question to articulate purpose for future work.

• Explain to students that in the upcoming series of lessons, they will be addressing the overarching guiding question: How do I identify credible sources for an information or research project? Tell students there are many factors to consider — some that were illustrated in this lesson—and you will help them to determine the best sources to use for their projects.

ASSESSMENTS:

- Participation in discussion
- Class discussion leader (extension)

SOURCE INFORMATION

Example A

In this article, I will explain how people can get taller. There are many short people who have been told by their doctors that they have completed their growth spurt years and that they no longer will continue to achieve additional height. These doctors certainly have misinformed their patients, and as a result have discouraged them. Instead, they should tell them that if patients were to hang upside down for 10 minutes every 4 hours, they will stretch their spinal columns. If these short people follow this routine for one full month, they can increase their height two full inches and stand shoulder to shoulder with peers their age. The medical research about spinal stretching spans many decades and have been attributed to the success of many basketball players who sought to increase their height beginning in their middle school years.

6

Evaluating the Credibility of Sources

Essential Unit Guiding Question:

How do I evaluate the credibility of sources and determine which ones to use for a specific task?

How do I decide which sources to use for an assignment?

LESSON OVERVIEW:

In this activity, students address the overarching unit guiding question – How do I identify credible sources? – by first zeroing in on the author of information, specifically: who wrote the information, the date it was written, and if the information can be verified. Students either go on a scavenger hunt or play a game using a targeted site and answers questions pertaining to the authorship or information. They then use what they find to make an evaluation about credible sources.

RESOURCES/MATERIALS:

- Internet access, one computer for each group
- Teacher pre-selected website links differentiated by interest and readability level
- “Scavenger Hunt Record Sheet” (provided)
- “Source Sleuth Game” (provided)
- Game pieces and number cards (teacher provided)
- “How do I identify credible sources?” (provided)

ESTIMATED TIMING:

This lesson will take approximately one to two 50-minute periods.

NOTE TO TEACHER: Throughout this lesson, there are opportunities to click links for search results if you have live Internet access. These links are expressed within most query brackets (e.g., [constitution]). If you do not have Internet access in your classroom, click the links for slides (e.g., Slide 7) prior to class and print out screen shots to show on a document camera to your students, on an overhead, or through hard copies.

LESSON DETAILS:

1. Bridge to previous learning. Remind students that in the previous activity, they identified that knowing the task and finding credible sources are important when gathering information. Tell them in this and other lessons, they will have some tools to help them identify credible sources.

2. Identify the focus for the scavenger hunt or play game.

- Explain that identifying the author can help determine the credibility and truthfulness of your source. Ask students what questions they would want to know about an author. Possible answers: Who wrote this information? When did s/he write it? Is this person reliable?
- Tell students they will either go on a Scavenger Hunt or play a game (TEACHER: choose which activity) so they can delve into the kinds of questions they just generated about the author of an information source. Explain that not all of the information they seek will be available for every source. This activity is intended to show them the kinds of information they might see to get a sense of credibility. e 7.
- Make these points to students or use them for your own edification when teaching:
- Recognizing credibility is not cut and dry. With web sources it is hard to determine credibility, but considering the questions posed in this activity will help.
- Information sources that are missing answers to some of the questions posed does not necessarily mean that they are entirely unreliable. Therefore, use the questions subjectively to determine credibility. These questions are not a checklist. It is designed to be an opportunity for students to practice locating, identifying, and processing this kind of information.
- Other factors of credibility include when an article was written and if the source can be verified. For certain topics, how old the information is can impact its reliability and accuracy. Examples of information where date is important can include presidential elections, Olympic Games, latest scientific findings, or current events. Where the date might not be so important is when researching about a historic event like what is in King Tut's tomb or the Trail of Tears, or information about a person from the past like Helen Keller, Albert Einstein, or Julius Cesar. The caveat is when these events or people become a current event because of a new finding. Ask students to volunteer their own examples of when date is important or not so important when researching sources.

3. Option #1: Conduct scavenger hunt.

- Group students homogeneously by reading level or by sets of students who are able to push each other to think more deeply. Invite groups to select a topic of interest from a list that you prepare prior to this activity. Issue a website address to each group based on their topic of interest and readability level. Instruct them to complete the "Scavenger Hunt Record Sheet" based on their assigned site.

- **Differentiation:** When preparing the list of sites, consider interest so that you have links for various interest-based sites. Additionally, within these interest areas, select several sites that span readability levels so that if more than one group chooses the same interest topic, you can assign website links that are appropriately challenging to each group. For students at the Intermediate Level, consider leveling sites by how difficult they are to find valid information to help with assessment (e.g., a site authored by an authority who only uses a Twitter handle instead of their name). Interest ideas can include sports, animals, art, or music. Please do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life. For groups needing additional support, work with them on an individual basis to get started on this assignment.

- **OPTION:** Students ultimately use their own research as a basis for evaluating its credibility. At the end of this exercise, they will do just that; however, you might elect for students to have already conducted research prior to beginning this lesson. Then, instead of the scavenger hunt using pre-selected websites, they can use their own sources.

4. Option #2: Play a game.

- Group students in homogeneous pairs or trios by reading level. Invite groups to select a topic of interest from a list that you prepare prior to this activity. Issue a website address to each pair or trio based on their topic of interest and readability level.
- Tell students they will use the game board “Source Sleuth Game” to investigate information about the author of material on a website. To start the game, students put a game piece on the “Start” box. This can be a collection of pieces you or students provide, such as beans, pennies, buttons, macaroni, metal rings, or paperclips. In addition, provide duplicate cards with a 1, 2, and 3 point value. Place these cards face down.
- Assign students a website and ask them to open it next to their prepared game cards. Students determine who goes first. This person turns over a card and moves to the spot on the board indicated by this number. Using the source information, the student answers the question. The pair or trio must agree before it is the next student’s turn. Repeat so that students continue to move around the game board answering and discussing questions based on the website. The game is over with the first person (or all students, as you wish) reach the “End” spot.

- **Differentiation:** When preparing the list of sites, consider interest so that you have links for various interest-based sites. Additionally, within these interest areas, select several sites that span readability levels so that if more than one pair or trio chooses the same interest topic, you can assign website links that are appropriately challenging to each grouping. For students at the Intermediate Level, consider leveling sites by how difficult they are to find valid information to help with assessment (e.g., a site authored by an authority who only uses a Twitter handle instead of their name). Interest ideas can include sports, animals, art, or music. Please do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life. For those needing additional support, work with them on an individual basis to get started on this game.

5. Debrief with classmates.

they found noteworthy. Avoid having students read off of their “Scavenger Hunt Record Sheets” (if they performed this activity). Their findings can include what they find or don’t find from their sites. Use these questions as a springboard for discussion: “Is it important to be able to answer every question? Why or why not? What do we do when we find sources where there are a lot of unanswered questions? What do you think about the credibility of your site after investigating answers to these questions?”

- To close this lesson, have students complete a sentence starter. You might say: “We have started to learn about what makes a credible source. Using what you learned in this lesson, complete this sentence starter with your partner (trio or group) and be ready to share with the class. Here is the sentence starter: When we research, it is important to....”
- Listen as students share their sentences. Guide them to respond with something close to this: “When we research, it is important to find and use credible sources. To help determine credible sources, researchers need to know about the author, when the article was written, and how this source can be verified.

6. Distribute list of credibility factors.

- Make a class set of copies of the handout “How do I identify credible sources?” Before distributing it, show and read the top paragraph only on a document camera or overhead. Explain that this handout will be a resource for them as they consider credible sources to use for their tasks. Once again, it is not a checklist, but rather a set of ideas to get them started. No website will meet all these criteria, and some websites that do may have other factors that make students suspect them. Then uncover the whole sheet and show them that they have already focused on the top four rows.
- Ask them if the row “Can this information be verified?” would have been helpful for verifying any skeptical claims which was the focus for the previous lesson (#5A). Discuss how the points in this row might be used for the examples used in the previous lesson. Explain that in subsequent lessons, you will lead them in lessons to tackle the other aspects of credibility.

ASSESSMENTS:

- Participation in group discussion
- “Scavenger Hunt Record Sheet” or participation in “Source Sleuth” game

SCAVENGER HUNT RECORD SHEET

Search Topic:	
Site Address:	
Group Members:	
Class Period:	

Directions: Review a site and answer these questions and prompts. You may divide this task with group members.

Who wrote this information?	
Can you identify an author? A real name or an alias?	
What is the author’s education, training, or experience as it relates to this content?	
Does s/he have a professional title or is s/he recognized as an authority? Identify the title.	

Is the author connected with an organization? If so, can you determine if it is a respected organization? Name the organization.	
Can you contact the author or company? How?	
If the author is unnamed, can you take extra steps to find information about this author? What steps did you take?	
When was the article written?	
Does the author include a date for the information written? What is it?	
Is it important that the information be current or are you researching a topic from long ago?	
Do the links on the site work, or are they outdated?	
Can the information be verified for accuracy?	
What sources does the author of this information use? Name one.	
Are these sources listed in the article? Linked?	
Does the author include a works cited or other links to provide additional resources or original source information? Identify one.	
Are there identified sources for any data or statistics in the content? Write one statistic and its source.	
Can you find other sources that share the same information, or is this the only source? Name which other source you accessed.	

Essential Unit Guiding Question:

How do I evaluate the credibility of sources and determine which ones to use for a specific task?

What do I need to consider about the sources that I use?

LESSON OVERVIEW:

In this lesson, teachers first lead students in a discussion around the guiding question: What kinds of sources should you use? Next, teachers help students to understand that no matter their task – be it informational report writing or argument – their information should be fact-based and the sources reliable. To do so, teachers conduct an activity around a fictitious site to highlight the importance of using unbiased, reliable, and accurate information. There are opportunities within this lesson for both the Beginner and Intermediate levels, so choose the appropriate links and activities to meet the needs of your students' expertise levels and reading readiness.

RESOURCES/MATERIALS

- Class-generated list of sources (from Beginner Lesson #4)
- "Source Information" (provided, and linked to in Presentation for Lesson 5)

ESTIMATED TIMING

- Approximately two 50-minute lessons

NOTE TO TEACHER: Throughout this lesson, there are opportunities to click links for search results if you have live Internet access. These links are expressed within most query brackets (e.g., [constitution]). If you do not have Internet access in your classroom, click the links for slides (e.g., Slide 7) prior to class and print out screen shots to show on a document camera to your students, on an overhead, or through hard copies. In some lesson points, there are slides only as an instructional tool. Also please note that the actual square brackets around each query should not be typed into Google. They represent what words and phrases should be actually typed into the search box.

LESSON DETAILS:

1. Set the stage. If you are coming to this lesson from either Beginner or Intermediate Lesson #4, students have been learning the types of sources that may hold different kinds of evidence. Now they will start learning to judge the credibility of a given source. Their level of sophistication for dealing with issues of credibility may vary, so interact with this material as is appropriate for your particular set of students.

2. Pose prompt to students. Use the Think-Pair-Share strategy in which students think about an answer to this question, partner with another to discuss, and then share out with the whole class: What kinds of sources should you use when completing an assignment [or working on a project]? Make a list of student responses on an easel or whiteboard for students to see. Or you might merely review the list of sources generated from Lesson #4. Make the point, if students have not, that knowing the task helps them determine which kinds of sources to access and use.

If students are coming from the Beginner Lessons, they should be able to talk about different media (e.g., images, videos, books, web pages, news articles) and different types of primary sources, as well (e.g., letters, journals, maps).

If students are coming from Intermediate Lessons, they should additionally be able to name formats of web pages, such as blogs, wikis, and reference sites.

3. Introduce the notion of credible sources.

- As a class, review the list of responses (or revisit the list from Foundation Lesson #4). Ask the question: “Besides knowing what your task is, what is critical about each of these sources if you are going to use them to support a claim or provide information about a topic?” To help them contribute these kinds of entries—reliable, credible, trusted, accurate, unbiased, balanced—conduct an activity and introduce it by saying: “You have generated an impressive list of what you look for when deciding what sources to use. I am going to read you two different excerpts from sites. After you listen, be prepared to answer our question again.”

- Feature “Source Information” on a document camera, handout, or show Slide 2-3. Read each of the two examples one at a time and pause to discuss students’ impressions by revisiting the question: “Besides knowing what your task is, what is critical about using sources to support a claim or provide information about a topic? Or: What do I need to consider about the sources that I use for my task?” Your goal is for students to see that sources should be reliable, credible, trusted, accurate, unbiased, balanced. If needed, create a list of these terms along with definitions.

4. Use your instincts.

- Explain that sometimes content seems so amazing that it makes a reader wonder if it's true or not. Ask students which of the examples – A or B – seems too good to be true. (Answer: A) Tell them to beware of this type of writing as it can indicate unreliability and inaccuracy. They should ask themselves these questions to help determine if the writing might be largely untrue: Does this information seem unbelievable? Does it make sense to you or others? Does what you read conflict with something you already know to be true? Does the writing seem like hyperbole where something is grossly exaggerated? Is there a way to check this information out so you know whether it is true or not?
- Ask students what they might do when they encounter such dubious material. By comparing multiple sources as a search strategy, they can get a sense of the quality of the information. If there is inconsistency among sources, this far-fetched claim may be too good to be true.
 - **Extension:** Review old advertisements which are oftentimes riddled with false claims. Invite volunteers to review a website like this one <http://www.old-newsads.com/> from OldNewsAds.Com that include multiple examples. Students can peruse the website and find a few ads to share with the class – some that appear real and others that are clearly unbelievable. They can share these selections with the class and lead a discussion about which ones appear true and which are far-fetched. You might introduce (or review) the term hyperbole and discuss how advertisers used this to sell products. Today there are laws to protect people from false advertising.
- In Example B, it may not sound too good to be true, but it still makes the reader feel skeptical. Encourage students to use the same strategy of corroborating or verifying the information using other sources to help determine if the facts or assertions are true or not. Optional: Have students search the Internet for other stories on the two topics in “Source Information” to validate the accuracy. As with most web searching, educators working with younger students may want to consider using a Custom Search Engine, asking students to search among a pre-selected series of sites.

5. State guiding question to articulate purpose for future work.

- Explain to students that in the upcoming series of lessons, they will be addressing the overarching guiding question: How do I identify credible sources for an information or research project? Tell students there are many factors to consider — some that were illustrated in this lesson—and you will help them to determine the best sources to use for their projects.

ASSESSMENTS:

- Participation in discussion
- Class discussion leader (extension)

SOURCE INFORMATION

Example A

In this article, I will explain how people can get taller. There are many short people who have been told by their doctors that they have completed their growth spurt years and that they no longer will continue to achieve additional height. These doctors certainly have misinformed their patients, and as a result have discouraged them. Instead, they should tell them that if patients were to hang upside down for 10 minutes every 4 hours, they will stretch their spinal columns. If these short people follow this routine for one full month, they can increase their height two full inches and stand shoulder to shoulder with peers their age. The medical research about spinal stretching spans many decades and have been attributed to the success of many basketball players who sought to increase their height beginning in their middle school years.

Example B

All football players are angry, vicious people who use the football field to express their anxiety. It has been reported that this sport draws males who are inherently distressed individuals who seek this activity as a means to blow off steam. The following was reported in the magazine Sports and Mental Health, "Everyone who plays this sport, even from a young age, has issues relating to anger management. This has been a pervasive problem that management of national teams must address head on." Unless football coaches and officials take this issue seriously and recruit players who are more emotionally stable, our society might incur problems. For example, some players visit bars and begin fights with patrons. Others engage in violent activities like dog fighting and breeding pit bulls.



Essential Unit Guiding Question:

How do I evaluate the credibility of sources and determine which ones to use for a specific task?

How do I decide which sources to use for an assignment?

LESSON OVERVIEW:

In this activity, students address the overarching unit guiding question – How do I identify credible sources? – by first zeroing in on the author of information, specifically: who wrote the information, the date it was written, and if the information can be verified. Students either go on a scavenger hunt or play a game using a targeted site and answers questions pertaining to the authorship or information. They then use what they find to make an evaluation about credible sources.

RESOURCES/MATERIALS

- Internet access, one computer for each group
- Teacher pre-selected website links differentiated by interest and readability level
- “Scavenger Hunt Record Sheet” (provided)
- “Source Sleuth Game” (provided)
- Game pieces and number cards (teacher provided)
- “How do I identify credible sources?” (provided)

ESTIMATED TIMING

- This lesson will take approximately one to two 50-minute periods.

LESSON DETAILS

1. Bridge to previous learning. Remind students that in the previous activity, they identified that knowing the task and finding credible sources are important when gathering information. Tell them in this and other lessons, they will have some tools to help them identify credible sources.

2. Identify the focus for the scavenger hunt or play game.

- Explain that identifying the author can help determine the credibility and truthfulness of your source. Ask students what questions they would want to know about an author. Possible answers: Who wrote this information? When did s/he write it? Is this person reliable?
- Tell students they will either go on a Scavenger Hunt or play a game (TEACHER: choose which activity) so they can delve into the kinds of questions they just generated about the author of an information source. Explain that not all of the information they seek will be available for every source. This activity is intended to show them the kinds of information they might see to get a sense of credibility.
- Make these points to students or use them for your own edification when teaching:
 - Recognizing credibility is not cut and dry. With web sources it is hard to determine credibility, but considering the questions posed in this activity will help.
 - Information sources that are missing answers to some of the questions posed does not necessarily mean that they are entirely unreliable. Therefore, use the questions subjectively to determine credibility. These questions are not a checklist. It is designed to be an opportunity for students to practice locating, identifying, and processing this kind of information.
 - Other factors of credibility include when an article was written and if the source can be verified. For certain topics, how old the information is can impact its reliability and accuracy. Examples of information where date is important can include presidential elections, Olympic Games, latest scientific findings, or current events. Where the date might not be so important is when researching about a historic event like what is in King Tut's tomb or the Trail of Tears, or information about a person from the past like Helen Keller, Albert Einstein, or Julius Cesar. The caveat is when these events or people become a current event because of a new finding. Ask students to volunteer their own examples of when date is important or not so important when researching sources.

3. Option #1: Conduct scavenger hunt.

- Group students homogeneously by reading level or by sets of students who are able to push each other to think more deeply. Invite groups to select a topic of interest from a list that you prepare prior to this activity. Issue a website address to each group based on their topic of interest and readability level. Instruct them to complete the "Scavenger Hunt Record Sheet" based on their assigned site.

- **Differentiation:** When preparing the list of sites, consider interest so that you have links for various interest-based sites. Additionally, within these interest areas, select several sites that span readability levels so that if more than one group chooses the same interest topic, you can assign website links that are appropriately challenging to each group. For students at the Intermediate Level, consider leveling sites by how difficult they are to find valid information to help with assessment (e.g., a site authored by an authority who only uses a Twitter handle instead of their name). Interest ideas can include sports, animals, art, or music. Please do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life. For groups needing additional support, work with them on an individual basis to get started on this assignment.

- **OPTION:** Students ultimately use their own research as a basis for evaluating its credibility. At the end of this exercise, they will do just that; however, you might elect for students to have already conducted research prior to beginning this lesson. Then, instead of the scavenger hunt using pre-selected websites, they can use their own sources.

4. Option #2: Play a game.

- Group students in homogeneous pairs or trios by reading level. Invite groups to select a topic of interest from a list that you prepare prior to this activity. Issue a website address to each pair or trio based on their topic of interest and readability level.
- Tell students they will use the game board “Source Sleuth Game” to investigate information about the author of material on a website. To start the game, students put a game piece on the “Start” box. This can be a collection of pieces you or students provide, such as beans, pennies, buttons, macaroni, metal rings, or paperclips. In addition, provide duplicate cards with a 1, 2, and 3 point value. Place these cards face down.
- Assign students a website and ask them to open it next to their prepared game cards. Students determine who goes first. This person turns over a card and moves to the spot on the board indicated by this number. Using the source information, the student answers the question. The pair or trio must agree before it is the next student’s turn. Repeat so that students continue to move around the game board answering and discussing questions based on the website. The game is over with the first person (or all students, as you wish) reach the “End” spot.

- **Differentiation:** When preparing the list of sites, consider interest so that you have links for various interest-based sites. Additionally, within these interest areas, select several sites that span readability levels so that if more than one pair or trio chooses the same interest topic, you can assign website links that are appropriately challenging to each grouping. For students at the Intermediate Level, consider leveling sites by how difficult they are to find valid information to help with assessment (e.g., a site authored by an authority who only uses a Twitter handle instead of their name). Interest ideas can include sports, animals, art, or music. Please do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life. For those needing additional support, work with them on an individual basis to get started on this game.

5. Debrief with classmates.

- Invite groups to share one or two key findings from the scavenger hunt or game that they found noteworthy. Avoid having students read off of their “Scavenger Hunt Record Sheets” (if

they performed this activity). Their findings can include what they find or don't find from their sites. Use these questions as a springboard for discussion: "Is it important to be able to answer every question? Why or why not? What do we do when we find sources where there are a lot of unanswered questions? What do you think about the credibility of your site after investigating answers to these questions?" • To close this lesson, have students complete a sentence starter. You might say: "We have started to learn about what makes a credible source. Using what you learned in this lesson, complete this sentence starter with your partner (trio or group) and be ready to share with the class. Here is the sentence starter: **When we research, it is important to....**"

- Listen as students share their sentences. Guide them to respond with something close to this: "When we research, it is important to find and use credible sources. To help determine credible sources, researchers need to know about the author, when the article was written, and how this source can be verified."

6. Distribute list of credibility factors.

- Make a class set of copies of the handout "How do I identify credible sources?" Before distributing it, show and read the top paragraph only on a document camera or overhead. Explain that this handout will be a resource for them as they consider credible sources to use for their tasks. Once again, it is not a checklist, but rather a set of ideas to get them started. No website will meet all these criteria, and some websites that do may have other factors that make students suspect them. Then uncover the whole sheet and show them that they have already focused on the top four rows.

- Ask them if the row "Can this information be verified?" would have been helpful for verifying any skeptical claims which was the focus for the previous lesson (#5A). Discuss how the points in this row might be used for the examples used in the previous lesson. Explain that in subsequent lessons, you will lead them in lessons to tackle the other aspects of credibility.

ASSESSMENTS:

- Participation in group discussion
- "Scavenger Hunt Record Sheet" or participation in "Source Sleuth" game

SCAVENGER HUNT RECORD SHEET

Search Topic:	
Site Address:	
Group Members:	
Class Period:	

Directions: Review a site and answer these questions and prompts. You may divide this task with group members.

Who wrote this information?	
Can you identify an author? A real name or an alias?	
What is the author's education, training, or experience as it relates to this content?	
Does s/he have a professional title or is s/he recognized as an authority? Identify the title.	
Is the author connected with an organization? If so, can you determine if it is a respected organization? Name the organization.	
Can you contact the author or company? How?	
If the author is unnamed, can you take extra steps to find information about this author? What steps did you take?	
When was the article written?	
Does the author include a date for the information written? What is it?	
Is it important that the information be current or are you researching a topic from long ago?	
Do the links on the site work, or are they outdated?	
Can the information be verified for accuracy?	
What sources does the author of this information use? Name one.	
Are these sources listed in the article? Linked?	
Does the author include a works cited or other links to provide additional resources or original source information? Identify one.	
Are there identified sources for any data or statistics in the content? Write one statistic and its source.	
Can you find other sources that share the same information, or is this the only source? Name which other source you accessed.	

Module 4:

Communication and Medical Ethics

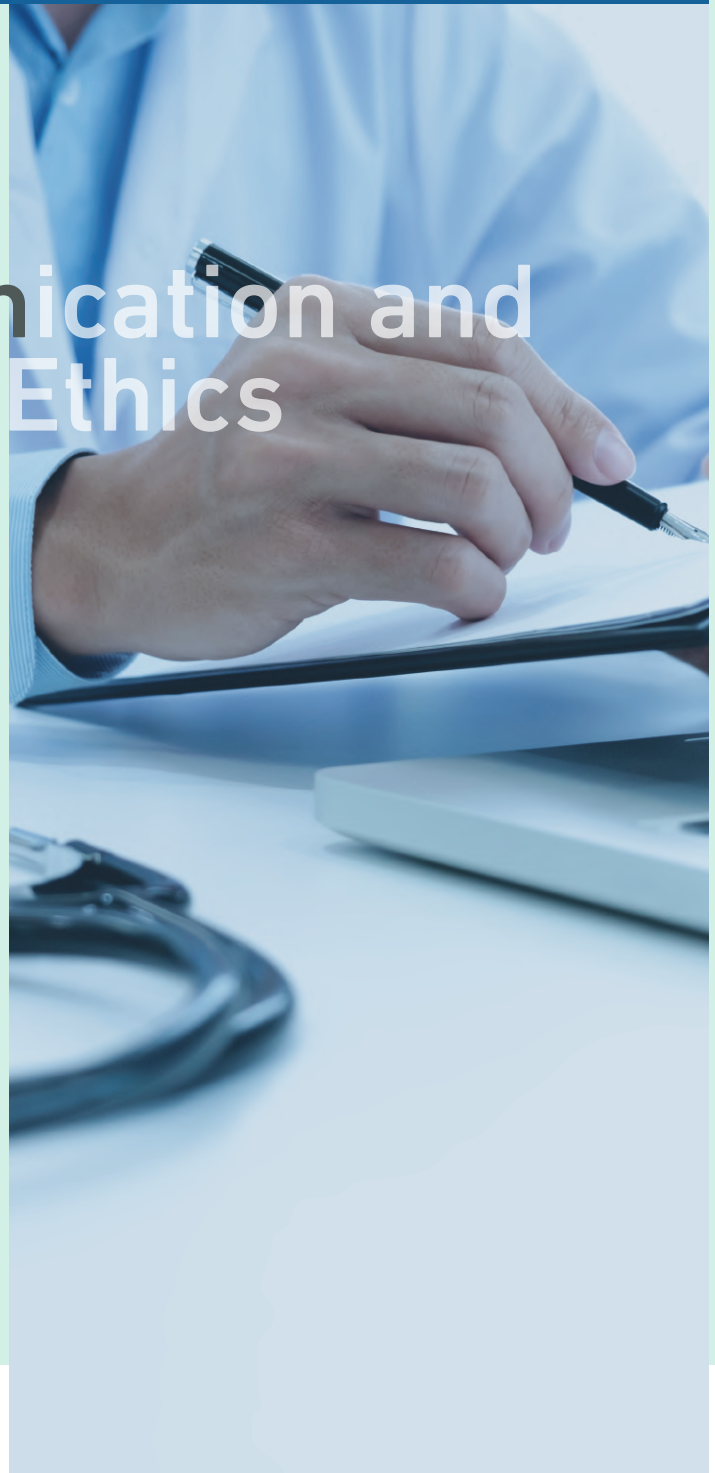


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Communication

The learning objectives:

- 1 Understand the communication and identify what is communication skills.
- 2 Understand the importance of communication skills.
- 3 Apply the basic types of communication.
- 4 Understand the deference of each type.
- 5 Identify each type of communication.
- 6 Write notes of the elements of the communication.
- 7 Outline the elements of communication.

8 Use the elements of combination

9 Recognize each element.

10 Classify each type of communication.

11 Discusses the types of combination.

12 Compare the types.

13 Demonstrate an understanding of interaction etiquettes.

14 Apply an understanding of how to use different techniques.

15 Identify the different scenarios and techniques.

16 Apply an understanding of each one of the active listening

17 Recognize what is active listening.

18 Understand the deferent between each one.

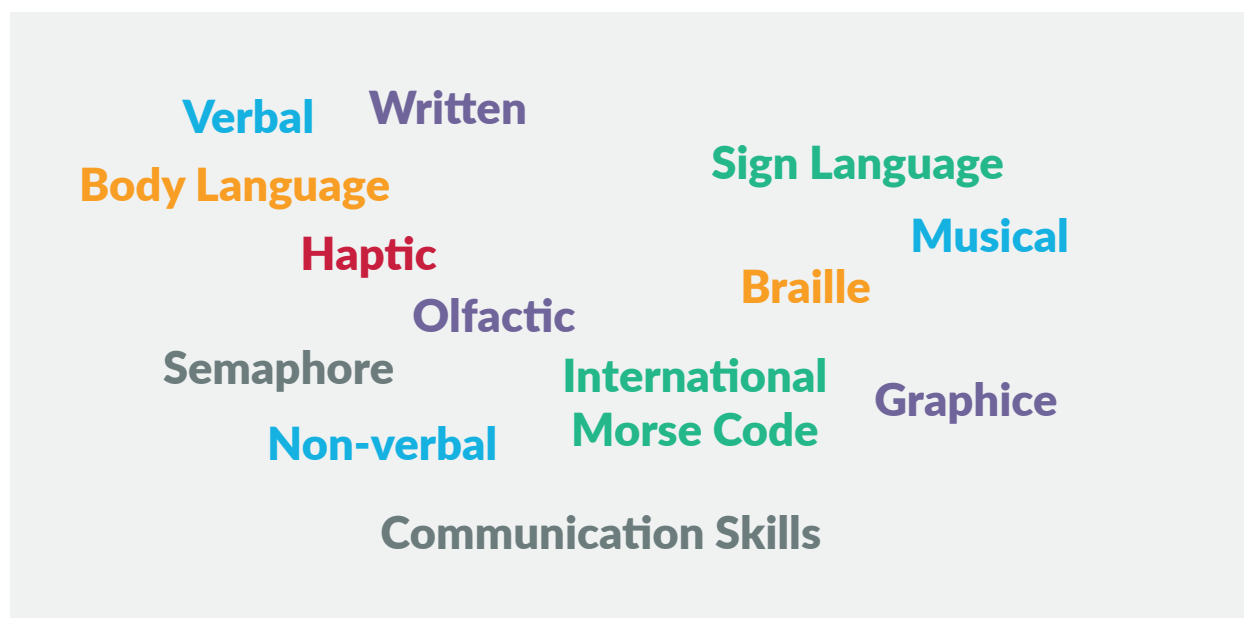
19 Identify the communication style.

20 Understand each style.

21 Classify the deferent between each one.

What are communication skills? And why it is important to learn it?

Communication is the basic need of in life specially for any workplace or any individual. Moreover, without the help of the communication human beings cannot live in the society. (Human beings cannot live in society without the help of communication. Communication is the very basic need of any organization and any individual. Communication is very important and it's requires all parties have a common area for communication. There are auditory means, such as speech and tone of voice, and there are non-verbal means, such as body language, sign language, linguistic language, touch, and visual communication through the media, that is, pictures, graphics, sound, and writing.



Usually communication knows as the exchange of an information, thought and emotion between individuals of groups; in other words, in the other hand, the meaning of communication derived from a Latin word, the word called "communis" this word means to share. Communication requires a sender, a message, and an intended recipient, although the receiver need not be present or aware of the sender's intent to communicate at the time of communication. The communication process is complete once the receiver has understood the message of the sender. Feedback is critical to effective communication between parties. Importance of Effective Communication is crucial at every level of an organization. However, the ability to communicate effectively is a skill that requires practice. We begin practicing our communication skills even before we learn to walk.

On the other hand, Communication: Collaborative, not Competitive and Communication is a two-way process involving an exchange of ideas. If you try to make it one-way, you prevent this exchange and will eventually frustrate the other person. You may also frustrate yourself, if you read the other person's lack of verbosity as disinterest in the conversation, rather than an inability to get a word in. The hallmark of effective communication is the coherent verbal projection of your ideas, so that your listener receives the message that you intend to send. By observing these two rules, you will reduce miscommunication and misunderstandings.

Types of communications.

Communication is more than an information from one person and another and there are four basic types of communication which are:

1. Non-verbal communication:

Nonverbal communication is a physical contact as the information is delivered through body language not through speech and its boils down to four main things such as:

- Facial expressions,
- Posture, Gestures
- Physical touch
- Eye contact.

2. Verbal communication:

Verbal communication is a speech communicate includes:

- Sounds
- Words
- Language
- Speaking

Examples for the verbal and nonverbal communication:

	Verbal Communication	Nonverbal Communication
Oral	Spoken Language	Laughing, Crying, Coughing, etc.
Non-Oral	Written Language/Sign Language	Gestures, Body Language, etc.

Example B

All football players are angry, vicious people who use the football field to express their anxiety. It has been reported that this sport draws males who are inherently distressed individuals who seek this activity as a means to blow off steam. The following was reported in the magazine *Sports and Mental Health*, "Everyone who plays this sport, even from a young age, has issues relating to anger management. This has been a pervasive problem that management of national teams must address head on." Unless football coaches and officials take this issue seriously and recruit players who are more emotionally stable, our society might incur problems. For example, some players visit bars and begin fights with patrons. Others engage in violent activities like dog fighting and breeding pit bulls.

3. Written communication:

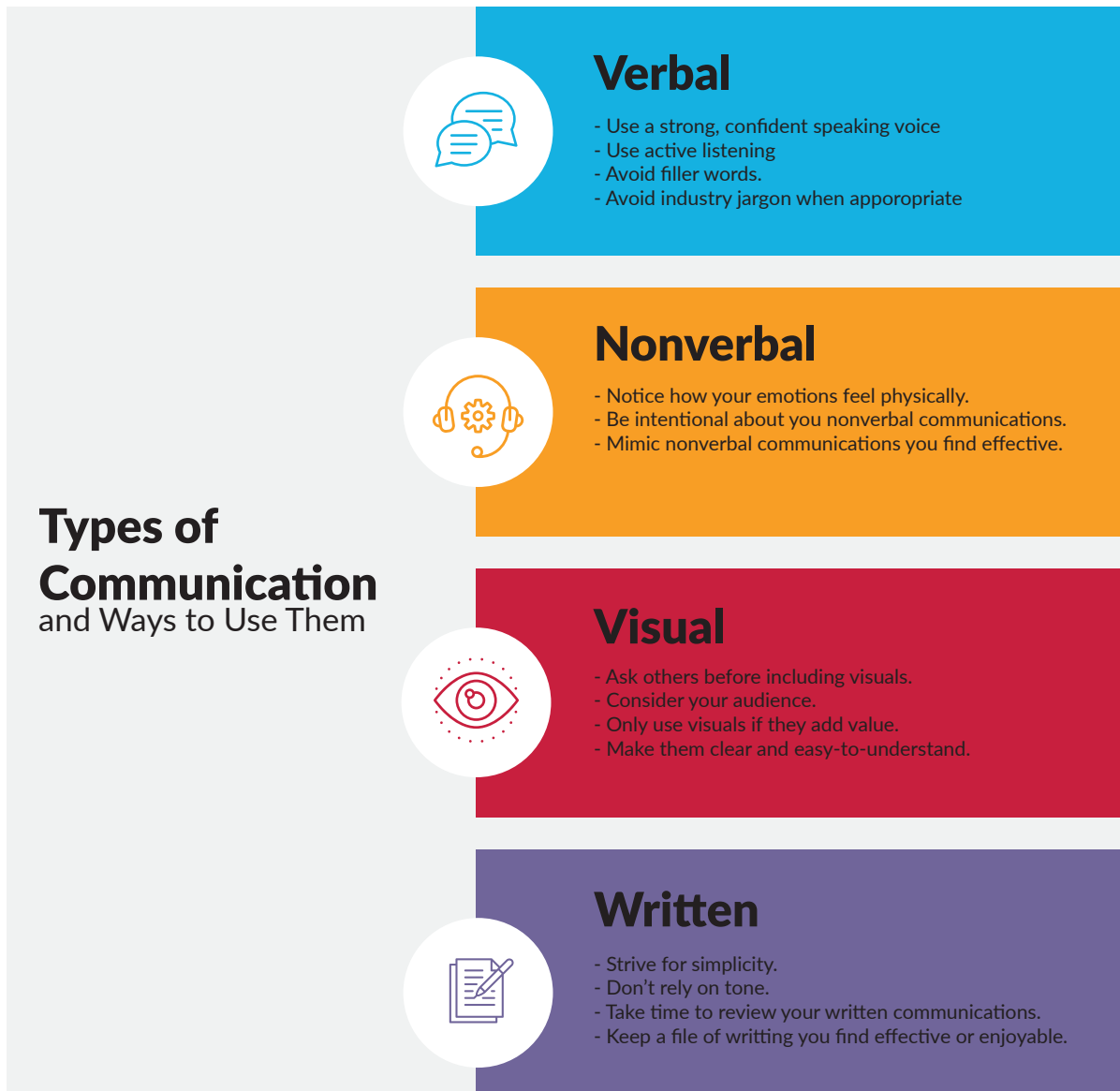
Written communication is very important skill to know includes:

- Structure
- Content
- Clarity

4. Visual communication:

Visual communication representing the information for the practice of graphically.

Below and example of the types of communication and ways to use them:
The main elements in communication process



Communication elements is very important and it essential and interconnected parts of the communication process. Moreover, the communication elements are referring to essential tools of communication on which the communication process is conducted. Elements of communication role is to entire cycle of sharing information between the sender and receiver. there are nine elements of communication which are

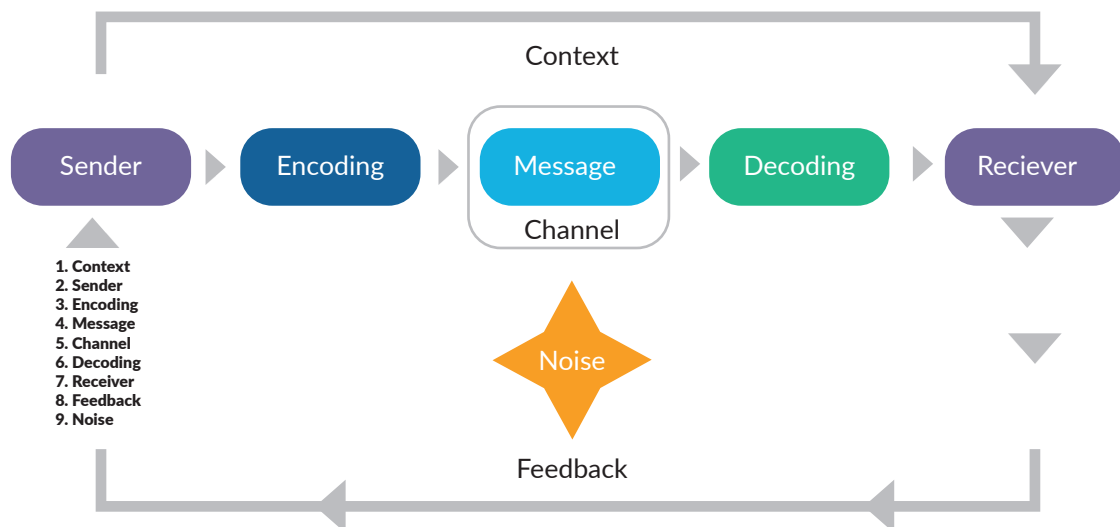
- Context
- Sender
- Encoder
- Message
- Channel
- Decoder
- Receiver
- Feedback
- Noise

ments are the essential tools or components for effective communication between sender and receiver. therefor are also known as the components of communication.

1. Context

Context is the most important element and the Communication context is the key element of every communication process that controls the communication process between senders and receivers.

2. Sender



A sender known as a person who sends the message to the receiver and the encoder of the message. Moreover, a sender is a speaker or writer or a person who provides the information to share opinions, ideas, and messages.

3. Encoder

Encoding is a process that transfer the subject into symbols. Moreover, it is related to the sender and receiver. A symbol might represent or indicate opinions, statements, and actions. in the other hand, any message is abstract and intangible.

4. Message:

The message is one of the key element of any communication process. Moreover, it is referring to the information, ideas, feelings, opinion, thought, attitude, and view that the sender wants to deliver to the receiver.

5. Channel

Channel is also one of the important elements of the communication process and the way or tool of transmitting the message. Therefore, Communicators use different channels to communicate in a distinct context of communication. In face-to-face communication, the sender's senses, such as hearing, seeing, smelling, touching, and tasting, are the channel of transferring the information. It is also one of the main elements of the communication process.

6. Decoder

Decoding is the process that receiver converts the symbols into thoughts received from the sender. Moreover, decoding is the opposite process of encoding to get the meaning of the message.

7. Receiver.

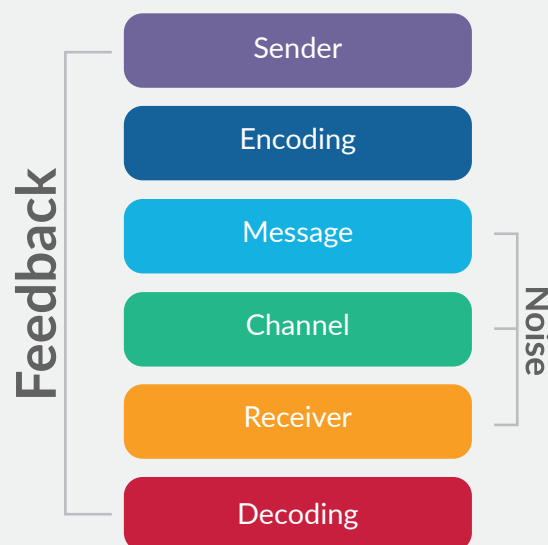
A receiver who received the message and a person for whom the message is targeted in contrast to the sender. The sender sends a message aimed at the receiver and receivers can be one person or a group of people or a big amount of population.

8. Feedback

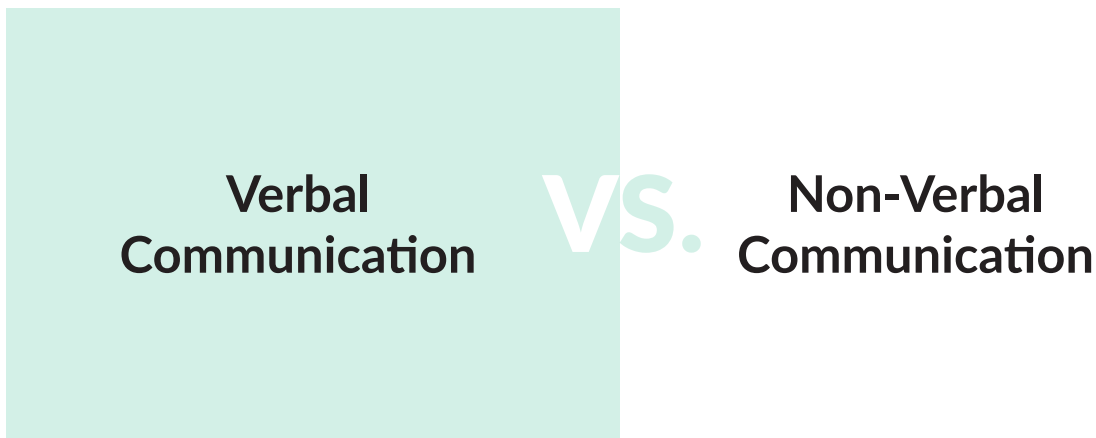
Feedback is the main elements of the effective communication process and refers to the response of the receiver or audience. Feedback may be verbal (through words) or non-verbal (in the form of smiles, sighs,) It may take written form such as reports.

9. Noise

Noise in communication is any barrier that obstacles the effectiveness of the communication process. Moreover, it is something that unwanted element of the communication elements. Therefore, Noise element refers to the obstacles to effective communication.



Verbal and Nonverbal communication:



Comparison Between Verbal and Non-Verbal Communication:

Parameter of Comparison	Verbal Communication	Nonverbal Communication
Definition	The use of words or speech or auditory language to express emotions or thoughts or exchange information.	use of visual or non-verbal cues such as facial expressions, eye or body movements, gestures, and many more without speaking.
Communication Type	Formal Informal	Informal
Impact of the Message	Very impactful as it is documented	Very comprehensive as it shows the actual emotions of the person.
Communicates	Precise information.	Required and at times more information.
Conveyed Through	Emails, letters, notes, reports, i.e. Anything in written and oral format where words are used.	Through Body posture, gestures, eye contacts, face expressions i.e. any form of expression.
Transparency Status	Clear and Concise.	Complex and sometimes confusing.

Different people communicate differently either verbally or non-verbally. But it's necessary to recognize the difference between Verbal and Non-verbal communication, verbal communication involves the proper usage of words and language, whereas in Non-verbal communication no words or language are used to communicate rather expressions convey the message. Moreover, in Verbal communication, the physical presence of the sender and receiver is not necessary, whereas in Non-verbal communication physical presence of the person is essential. In Verbal communication, the message is easily conveyed and understood by the recipient, whereas in Non-verbal communication recipient can easily miss either some part or the whole message.

Interaction etiquettes:

We will demonstrate Telephone as well as Email interaction etiquettes.

1. Telephone etiquettes:

There are six telephone communication skills outlined below.

- Positive tone voice
- Clear Enunciation
- Sincerity
- Engagement
- Active listening
- Key points

Going beyond message taking

2. Email Etiquettes

- Think before you write.
- Keep it simple.
- Structure your e-mail.
- Keep it short.
- Make your subject line work.

What to include in your email message?

- Subject Line
- Greeting.
- Length
- Font Style.
- Closing

What Not to include in your email message?

- Font Style
- Emoticons

Professional Email Message Guidelines

Subject Line

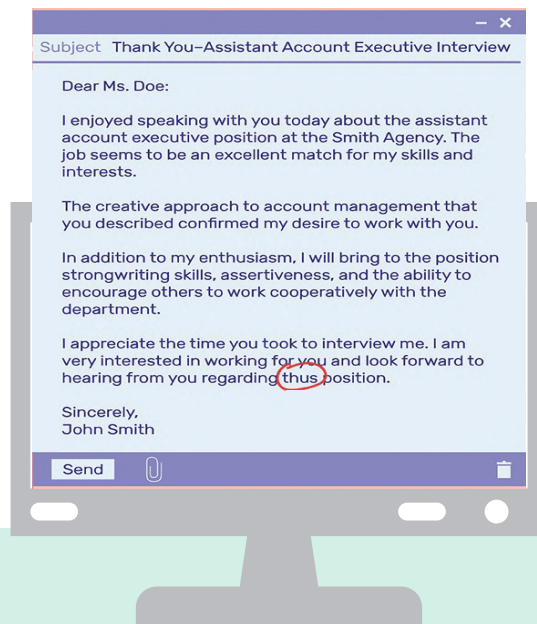
Concisely convey your purpose for writing

Greeting

Always include a greeting

Fonf Style

Avoid ornate, playful or colored fonts



Length

Keep it as concise as possible


Emoticons

Avoid Emojies in professional emails

Spelling & Grammer

Edit carefully before sending

Professional Email Format:



Subject Line — Subject Line: UX Research Contract Opportunity

Salutation — Hello Amal,

Body — I hope this message finds you well. I'm reaching out today because I'm managing an application redesign project here at ABC Company and seeking a skilled UX research contractor to help analyze several sets of usability testing data.

This is a three-month project beginning February 1st, and we estimate it will take roughly 15 hours per week. All work can be completed remotely, but you're welcome to use our workspace.

Closing — Please let me know if you're interested in this project and we can set up some time to discuss the details further. I look forward to hearing from you.

Signature — Sincerely,
Alan Goto
User Experience Director
ABC Company, Inc.

Send [icons]

- Identify your goal
- consider your audience
- Keep it concise
- Proofread your email
- Use proper etiquette
- Remember to follow up

Demonstrate different techniques of dealing with difficult patients, families, and caregivers:

1	Listen	2	Stay Calm
3	Don't Judge	4	Reflect respect and dignity toward other person
5	Look for the hidden need	6	Look for others around you who might be able to help
7	Don't demand compliance	8	Don't act defensively
9	Don't return anger with anger	10	Keep extra space between you and the other person

Active listening:

Listening is one of the most important skills you can have. Moreover, to be an active listener is more important and it is a very important skill to acquire and how well you listen has a major impact on your job effectiveness. For examples: listen to obtain information, listen to understand. listen for enjoyment and we listen to learn.

On the other hand, to improve your listening skills you have to practice "active listening." Because it is very important to hear not only the words that another person is saying but, the complete message and that is how being communicated. Furthermore, you must pay attention to the other person very carefully.

To be an active listener there are five keys techniques you can use to become a more effective listener:

- Pay attention.
- Show that you're listening.
- Provide feedback.
- Defer judgment.
- Respond appropriately.

More examples about active listener:

6 KEY ACTIVE LISTENING SKILLS



**Pay
Attention**



**Withhold
Judgment**



Reflect



Clarify



Summarize



Sharing

Communication Style:

To know more about communication style, you will know more a different communication styles, which will lead to a better understanding of how people communicate. There are 5 types of Communication Styles:

- Assertive communication style
- Aggressive communication style.
- Passive communication style.
- Passive-aggressive communication style.
- Manipulative communication style.

2

Medical Ethics

Goal:

apply professional attitudes and developed a strong work ethic.

Objectives:

- Identify the rights and responsibilities of patients, families, and health care providers.
- Recognize different aspects and issues related to the Saudi legal system and Islamic values to health practice.
- Demonstrate professionalism in the workplace.
- Discuss the ethical and legal aspects of healthcare practice.
- Apply the 4 basic ethical principles Autonomy, Beneficence, Non-maleficence, and Justice.
- Cultivate basic interpersonal skills related to work.

The definition of ethic:

It can be described as moral guidelines that are founded on principles of right and wrong and good and bad.

Professional ethics:

Are the guidelines stemmed from the values and principles of proper conduct and practicing of a profession.

Sources of Healthcare Ethics:

Professional ethics and sourced from:

- Religion.
- Culture.
- Research.
- Law and legal system.
- Codes of ethics.

Important subjects in ethics:

- Professionalism
- The 4 basic ethical principles: autonomy, beneficence, nonmaleficence, and justice
- Rights and responsibilities of patients, families, and health care providers.
- Interpersonal skills.
- Saudi legal system and Islamic values to health practice.

Professionalism:

As defined by Merriam-Webster dictionary professionalism is “the conduct, aims, or qualities that characterize or mark a profession or a professional person”

Benefits of professionalism:

- Increases productivity.
- Improves workplace relationships.
- Better presentation of the profession.
- Promote job development.

Professionalism Key elements:

- **Excellence.**

Includes Punctuality, commitment to profession and learning, Positive attitude, understanding professional limits, and giving your best talents and skills.

- **Humanism.**

Includes all aspects of acting humanely and rescuer Empathy, Compassion, Support, Love, care, and integrity.

- **Respect**

Respect all people no matter who they are and treat them with dignity.

- **Reliability**

Includes responsibility, accountability, fulfilling duties, considering confidentiality, and resolving conflicts.

- **Altruism**

Includes Putting the patient first, giving full commitment to your patient, and Avoid biases that could negatively impact the patient-doctor relationship.

- **Integrity and justice**

Includes honesty, being fair, meeting commitments, not abusing authority. And Behaving in a good.

Attributes of a professional:

- Specialized Knowledge.
- Competency.
- Honesty and Integrity.
- Accountability.
- Self-Regulation.
- Image.
- Attitude.
- Communication Skills.
- Mannerisms.

Ways to develop professionalism:

- Be productive.
- Build Expertise.
- Develop a professional image.
- Take the initiative.
- Develop Your Emotional Intelligence.
- Maintain effective work habits.
- Demonstrate integrity.
- Provide excellence.
- Keep your knowledge and skills Up-To-Date.
- Be a problem-solver.
- Be resilient.
- Communicate effectively.
- Honor Your Commitments.
- Develop self-awareness.
- Build relationships.
- Don't make excuses.
- Be Polite and kind.

The 4 basic ethical principles:

- **Autonomy**
The right for an individual to determine their own choice.
- **Beneficence**
To acting with the best interest of the other in mind.
- **Non-maleficence**
Is “above all, do no harm,” as stated in the Hippocratic Oath.
- **Justice**
A concept of fairness and equality among all individuals.

Respect for autonomy

is the obligation to respect the decisions of adults who with decision-making ability. with the conditions of:



- Intention.
- Comprehension.
- No controlling influences.

To apply the principle of autonomy:

- Tell the complete truth.
- Keep the patient Involved.
- Respect others privacy.
- Respect others choice.
- Protect confidently.
- Obtain Informed consent.

A patient has the right to refuse treatment even if it is indicated that the suggested treatment is beneficial, unless this decision will negatively impact the well-being of another person.

Beneficence

Is the obligation to acting to the benefit of others.

Aspects of beneficence:

- To Provide benefits
- To Balance benefits and risks.

To apply the principle of beneficence:

- Protect others rights.
- Prevent harm.
- Help individuals with disabilities.
- Rescue persons from danger.
- Bring about good in all actions.
- Provide high quality services.

Nonmaleficence

is the obligation to not inflict harm on others
rules of nonmaleficence:

- Do not kill.
- Do not cause pain or suffering.
- Do not incapacitate.
- Do not cause offense.

Every action must result in more good than harm.

“First of all, do no harm,” is part of the Hippocratic Oath. All actions of a healthcare provider must in the best interest of the patient.

Omission and commission:

- Omission

means not doing an action that could result in avoiding harm.

- Commission

Is actually doing something that resulted in harm.

Justice

Is the obligation to equitably distribute resources, benefits, costs, and risks.
arguments supported by justice:

- An equal share
- According to need
- According to effort
- According to contribution
- According to merit.

To apply justice, we have to manage:

- Resources Distribution.
- Services Accessibility.
- Rights to Services.
- Patients' movement through levels of care.

Rights and responsibilities of patients, families, and health care providers.

Patients' rights:

- To receive the needed health care that is respectful and culturally appropriate in a safe environment. regardless of race, age, creed, beliefs, color, gender, religion.
- Express religious and cultural beliefs without harming others or interfering with the medical treatment or the rights of others.
- Patients must be introduced to their treating medical team who will be providing care.
- To be cared for by competent, qualified, and caring staff.
- To Request any assistance if having visual and/or hearing impairment.
- To be seen by a physician within 24 hours of admission.
- To be informed of all information about diagnosis, treatment plan and procedures.
- When a patient refuses the care provided the patient and his family should be informed about the consequences of his refusal and the expected outcomes from this decision.
- The patient has the right to seek consultation from any other specialist.
- The patient will receive necessary health education about medication and lifestyle to benefit from treatment.
- Complaints by the patient or his family will not interfere with the treatment or care provided.
- To receive information to allow an informed consent to be given.
- To Maintain patients' confidentiality and privacy.
- To be transferred to another room in case of discomfort based on facility availability of unoccupied rooms.
- Decide who can make decisions about care.
- To be provided with translation services if needed.
- To be able to refuse to take part in research, or to withdraw from a research program at any stage.
- To refuse treatment to the extent permitted by law.
- To be discharged with appropriate medication, follow up appointment, and required instruction/education for care at home.
- To be provided with a documentation about their medical situation.
- To report any concerns about the safety or quality of care.

Patients' Responsibilities:

- To avoid dealing or cancellation of appointments and attending on time.
- To contact the health care facility If unable to keep the appointment in prior for rescheduling.
- Comply with inpatient visiting regulations.
- Follow safety and security instructions and regulations.
- To consider that medical priority is given according to patients' medical condition.
- Protect all Hospital medical equipment.
- Ask questions and seek more information when unable to understand information or instructions.
- Follow treatment plan.
- Express opinions and concerns in a helpful way to the medical team.
- To follow your attending nurse's instructions in inpatient settings, and keeping them informed.
- If there is any violation of Hospital rules and regulation, the person responsible for the violation shall be held responsible.
- Comply with public morals and ethics and Treat others with respect.
- Tell doctor about any changes in health and make sure that your bio-data is updated.
- Meet financial obligations.
- Give complete and correct information to the treatment team.
- If you refuse a treatment, you are required to sign a " Discharge Against Medical Advice Form", and you shall be held responsible for the consequences of such refusal.

Interpersonal skills:

- | | |
|--|----------------------------|
| • Humbleness and Respect for Others | • Problem-solving |
| • Truthfulness and Honesty | • Adaptability |
| • Loyalty | • Positivity |
| • Trustworthiness | • Ability to manage stress |
| • Self-Discipline and Self –Responsibility | • Autonomy |
| • Initiative | • Communication |
| • Patience and Forbearance | • Goal-setting |
| • Passion and Love | • Leadership |
| • Moderation and Fairness | • Timeliness |
| • Confidence | • Volunteerism |
| • Relationship Management | • Empathy |
| • Receptiveness to Feedback | • Listening skills |
| • Collaboration | • Reliability |
| • Conflict Management | • Negotiation skills |
| • Workplace Etiquette | • Assertiveness |

Identify aspects of the Saudi legal system and Islamic values to health practice:

Islamic values

They are core Islamic values for health care workers to consider

- **Modesty and privacy (Awra)**

1. The necessity or need is established.
2. Lack of an alternative means.
3. Men should not examine women and vice-versa, unless it is not possible to
4. find an alternative.
5. Limit the exposure time and extent needed to achieve the task.
6. Limit the number of other healthcare practitioners to only those required to
7. be present.
8. Is essential to knock on the patient's door or announce an arrival

- **Visiting the sick**

Visiting the ill is a significant value in Islam that may result in overcrowding, Patients' safety must be considered by health care providers, who must also negotiate with visitors.

- **Abortion**

should not perform abortions unless it is absolutely necessary to preserve the mother's life. Abortion is only permitted if the pregnancy is less than four months long and it has been determined that continuing the pregnancy would threaten the mother's life. A medical committee must verify this.

- **Relation Between with Opposite Sexes**

1. Never do something that isn't religiously acceptable.
2. Maintain a professional demeanor.
3. Do not take advantage of the trust.
4. The healthcare provider should only share his or her personal contact information in limited circumstances and in an urgent situation.

- **Religiously Forbidden Procedures and Treatment Methods**

Unless strictly necessary, it is not permitted to use or perform any religiously forbidden procedure or medication.

- **Worship during Illness**

Muslim patients often embrace acts of worship fervently during illness health care practitioners are to respect the wishes of the patient when devoting time to worship during illness.

- **Voluntary and mandatory fasting**

Every year during the holy month of Ramadan, Muslims are required to fast. Muslims fast from the time of the morning prayer to the time of the sunset prayer mostly by abstaining from eating and drinking. In this regard, health care practitioners should take on an advocacy role, bringing it to the attention of the health care team if there is a potential negative impact of fasting on the patient's well-being, so that a Muslim physician can have an honest discussion with the patient and family about the potential harm, and/or adjust treatment to be more in line with the patient's spiritual needs.

Saudi legal system

<https://www.moh.gov.sa/en/Ministry/Rules/Pages/default.aspx>

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<https://www.moh.gov.sa/Ministry/Rules/Documents/005.pdf>

Developing a strong work ethics:

SYSTEMATIC PROCESS FOR WORKING THROUGH ETHICAL SITUATIONS

Due to the nature of ethics, it is sometimes difficult to identify the factors that generate an ethical predicament because there may not be a simple solution to a problem. Because complex, moral, and value-laden circumstances are difficult to comprehend, dealing through ethical problems necessitates a systematic approach that begins with an awareness of all parties' values. Almost every ethical scenario involves other members of the health-care team, and these individuals must be included in the discussion in order to address the difficulties and produce a plan of treatment that is acceptable. An ethical resource person, such as an ethicist, a mosque's religious representative, a religious committee, or an ethics committee, can also help. There are many ways of working through and understanding ethical situations. A recommended systemic approach:

Assessment/description of situation

- Pay close attention to all elements of the issue, considering the patients' beliefs, values, and wishes, as well as their cultural background.
- Consider not only your own beliefs, values, and knowledge, but also the beliefs, values, and knowledge of others in the health-care team.
- Consider relevant regulations and standards, professional codes of ethics, and legislation.
- Hold a meeting with everyone involved to clarify the procedure. The nature of the problem is explained and the concerns are recognized after careful analysis of all of these aspects.
- Declare the ethical concern, issue, difficulty, or dilemma in detail.
- Identify a variety of options and their implications. Options that may not appear viable at first must be considered as a means of improving analysis and decision-making.

Plan/approach

- Create an action plan based on the assessment's findings, options, and repercussions. Sometimes the best course of action is to do nothing. This should be a deliberate decision, as doing nothing will have an impact on the outcome, and should not be used to avoid making a choice.
- Choose the most appropriate line of action. Sometimes achieving a "perfectly good" result is impossible; the best possible outcome may be the "least bad."
- Talk to anyone who disagrees with you and think about what they have to say. Perhaps a more thorough examination of the problem is required, and the dissident party should be included in the planning process.
- If a person participates in the decision-making process but does not agree with the final plan, she or he must respect the decision. If she or he refuses to accept the judgment, the situation must be escalated or an expert ethics consultation.

Implementation/action

- Carry out the actions that have been agreed upon. It is vital to have sensitivity, strong communication, and interpersonal skills. All those who are affected by the issue must be kept up to date.
- Provide patient, family, friends, and caregivers with information and emotional support; implementation can be stressful.
- It is critical to clearly document the ethical situation and outcome, concentrating on facts rather than views.

Evaluation/outcome

- Determine if the outcome is satisfactory.
- Include those who participated in the initial assessment and planning, such as the patient and his or her family.
- If others are concerned about the outcome, reassess and re-plan.
- Consider policies and guidelines for subsequent situations and decisions, and if required, offer an exemption when a compelling case justifies it.
- Determine the amount of time available for ethical decision-making. When there isn't enough time to adequately evaluate the issues, several ethical concerns arise.

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Module 5:

Technical English Module Suggested Content



Table of Contents

Medical Suffix Meanings	118
Prefixes and Their Meanings	120
Medical English Vocabulary	123

1 Jargon, definition, and examples.

2 Prefixes and Suffixes.

3 Context Cues, Understanding context and discourse.

4 Parts of speech, word forms and structure, word lists.

Jargon:

According to the Cambridge Dictionary, jargon are special words and phrases that are used by particular groups of people, especially in their work¹.

Examples of Medical Jargon:

The medical field is filled with cryptic jargon, including innumerable scientific terms and medical abbreviations.

- acute - a condition that comes on suddenly
- agonal - term to signify a major, negative change in a patient's condition
- atypical - something that isn't completely normal
- comorbid - two or more conditions that occur at the same time
- iatrogenic - something that didn't go as planned
- idiopathic - a condition that does not have a clear explanation of cause
- metabolic syndrome - a group of risk factors that increase the likelihood of heart attack and stroke
- negative - results of a test that indicate a tested condition is not present
- sub-therapeutic - something at a low level
- tachycardia - fast heart rate

Medical Abbreviations List³:

The healthcare field is full of technical terminology, including a number of medical abbreviations that are used to complete patient charts, write prescriptions, communicate general needs and bill for services. Being able to access a medical abbreviation list can help you take control of your healthcare needs.

General Terms

These general medical terms are oftentimes abbreviated for ease of communication.

- AA - amino acid
- ABG - arterial blood gas
- ADM - admission, admitted
- ALS - advanced life support
- AMA - against medical advice (or American Medical Association)
- ASAP - as soon as possible
- A&W - alive and well
- C - centigrade, celsius
- CC - cubic centimeter, chief complaint, critical care
- C/O - complains of, care of
- CO₂ - carbon dioxide
- D/C - discontinue or discharge
- DNR - do not resuscitate
- DO - disorder
- DOA - dead on arrival or date of admission
- DOB - date of birth
- DOT - directly observed therapy
- DSM - Diagnostic and Statistical Manual of Mental Disorders
- EDC - estimated date of confinement
- EDD - estimated delivery date
- EGA - estimated gestational age
- ER - emergency room
- F - fahrenheit
- H&P - history and physical examination
- HPI - history of present illness
- H/O - history of
- HR - heart rate or hour
- HS - hour of sleep (bedtime)
- ICU - intensive care unit
- ID - infectious diseases
- IP - inpatient
- IQ - intelligence quotient
- IU - international units
- MCO - managed care organization
- MG - milligram
- MVA - motor vehicle accident
- ML - milliliter
- NKDA - no known drug allergies
- NTG - nitroglycerin
- O₂ - oxygen
- OPD - outpatient department
- P - pulse
- Post-op - postoperative (after surgery)

- Pre-op - preoperative (before surgery)
- PA or PT - patient
- PCP - primary care physician
- PPE - personal protection equipment
- RBC - red blood cell
- RF - risk factor
- S - without (sans)
- SX - symptoms
- S/S - signs and symptoms
- STAT - immediately
- T - temperature
- TPR - temperature, pulse, respiration
- USOH - usual state of health
- VS - vital signs
- VSS - vital signs stable
- WB - whole blood
- WBC - white blood cell
- WNL - within normal limits

Prescription

These abbreviations are used in the context of prescription drugs.

- ABX - antibiotics
- AC - before meals
- Ad lib - at will, as desired
- BID - bis in dies (twice a day)
- CAP - capsule
- GTT - drop-liquid measurement
- i - 1
- ii - 2
- iii - 3
- iv - 4
- v - 5
- MDD - maximum daily dose
- NPO - nothing by mouth
- OCP - oral contraceptive pill
- OPV - oral polio vaccine
- OTC - over the counter
- PC - after meals
- PCN - penicillin
- PNV - prenatal vitamins
- PO - per os (by mouth)
- PRN - as needed
- q2h - every 2 hours
- q3h - every 3 hours
- qam - every morning
- qd - once a day
- qh - once every hour
- qhs - at bedtime

- qid - four times a day
- qod - every other day
- qpm - every evening
- RDI - recommended daily intake
- Rx - prescription, treatment
- SC/SQ - subcutaneous
- TAB - tablet
- TIW - three times a week

Care

When it comes to medical care, a variety of medical abbreviations are also commonly used.

- AXR - abdominal x-ray
- BAC - blood alcohol content
- BC - birth control
- BE - barium enema
- BMT - bone marrow transplant
- Bx - biopsy
- BRP - bathroom privileges
- CPR - cardiopulmonary resuscitation
- CXR - chest x-ray
- ECC - emergency cardiac care
- ECG or EKG - electrocardiogram
- ECMO - extracorporeal membrane oxygenation
- ECT - electroconvulsive therapy
- ECV - external cephalic version
- FB - foreign body
- FNA - fine needle aspiration
- FOBT - fecal occult blood testing
- GLT - glucose loading test
- GTT - glucose tolerance test
- H₂O - water
- I&D - incision and drainage
- IM - intramuscular
- I&O - intake and output
- IV - intravenous
- IUPC - intrauterine pressure catheter
- In vitro - in the laboratory
- In vivo - in the body
- KUB - kidney, ureter, bladder (x-ray)
- OGTT - oral glucose tolerance test
- PAP - pulmonary artery pressure; Papanicolaou test
- PEEP - positive end expiratory pressure
- PT - physical therapy
- T&C - type and cross (blood)
- TPA - tissue plasminogen activator (dissolve clots), total parenteral alimentation (intravenous nutritional needs)
- UA - urinalysis
- US - ultrasound
- XRT - external radiation therapy

Diagnosis or Condition

When describing the condition of a patient or assigning a diagnosis, medical staff may use some of these abbreviations.

- ADHD - attention deficit hyperactivity disorder
- AF - acid-fast
- AIDS - acquired immune deficiency syndrome
- ALS - amyotrophic lateral sclerosis (Lou Gehrig's disease)
- A&O - alert and oriented
- AOB - alcohol on breath
- ARDS - adult respiratory distress syndrome
- ARF - acute renal failure, acute rheumatic fever
- BAD - bipolar affective disorder
- BM - bowel movement
- BP - blood pressure
- CA - cancer
- CAB - carotid artery bruit
- CABG - coronary artery bypass graft
- CAD - coronary artery disease
- CBC - complete blood count
- CF - cystic fibrosis
- C/F - chills, fever
- CFT - complement fixation testing
- CHD - congenital heart disease
- CHF - congestive heart failure
- COLD - chronic obstructive lung disease
- COPD - chronic obstructive pulmonary disease
- CP - chest pain
- CP - cerebral palsy
- C/S - cesarean section
- CV - cardiovascular
- CVA - cerebral vascular accident (stroke)
- DTR - deep tendon reflex
- DVT - deep venous thrombosis
- Dx - diagnosis

1

Medical Suffix Meanings

Sometimes it can feel like medical terminology is a language all of its own. There are so many specialized medical terms that it can be difficult to understand all the jargon used in the doctor's office or to easily recall these long, difficult words for class. Understanding medical suffix meanings can help you figure out the full meaning of a tricky term, whether you're talking to your doctor or studying for a test.

Fortunately, it's possible to decode unfamiliar medical and scientific terms. Many are combinations of common Greek and Latin prefixes, root words and suffixes. Learning the most common parts of medical terms makes it easier to figure out what a word means when you put the pieces together.

To allow you to understand more medical terms, it helps to certain medical suffix meanings. You won't be overwhelmed by the long words if you can readily identify parts of it. Many medical terms are made up with the same set of endings. This list of common medical suffixes will help you become more familiar with medical and scientific terms.

Common Medical Suffixes Defined

Suffix	Meaning	Examples
-algia	pain	fibromyalgia, neuralgia
-cardia	of the heart	tachycardia, dextrocardia
-centesis	puncturing and draining	amniocentesis, pericardiocentesis
-cyte	cell	lymphocyte, splenocyte
-ectomy	surgery to remove	appendectomy, tonsilectomy
-emia	presence in the blood	anemia, hypoglycemia
-genic	causing	carcinogenic, pathogenic
-gram	recording	cardiogram, mammogram
-iatrics/-iatry	specialty	geriatrics, pediatrics, psychiatry
-itis	inflammation	arthritis, laryngitis, tendonitis
-lysis	deterioration or destruction	dialysis, paralysis

-ology	science of	necrology, pathology
-oma	swelling, tumor	blastoma, mesothelioma
-osis	condition, disease progress	diagnosis, prognosis
-otomy	surgical incision	lobotomy, tracheotomy
-oxia	oxygen level	anoxia, hypoxia
-pathy	disease	neuropathy, sociopathy
-phagia	swallowing	dysphagia, hyperphagia
-phasia	speech	aphasia, dysphasia
-philia/-philic	attraction to	hemophilia, hydrophilic
-phobia	fear	arachnophobia, agoraphobia
-plasty	surgical repair	angioplasty, rhinoplasty
-rrhea	flow, discharge	amenorrhea, diarrhea
-scopy	exam with an instrument	colonoscopy, endoscopy

Spelling Rules

Now you know your suffixes, remembering a couple of spelling rules will help you apply them correctly to root words:

- When a medical suffix beginning with a consonant is added to a stem ending with a consonant, a vowel, usually -o-, is added as a connector, as in lymphocyte.
- When a medical suffix beginning with a vowel is added to a stem ending in a vowel, the stem's vowel is dropped, as in appendectomy.

Putting it all Together

Understanding the basic meanings of medical suffixes will help you decipher what your medical practitioner or professor is saying. In general, the prefix or root word will refer to the body part in question, and the suffix refers to a procedure, condition, or disease of that body part. By putting these terms together, you can better comprehend a condition or treatment.

2

Prefixes and Their Meanings

What is a prefix?

A prefix is defined as a syllable or group of syllables added to the beginning of a word or a root word stem to alter its meaning. Prefixes add complexity to the English language and make it possible to create new words that are easily understood by speakers everywhere. Reviewing a variety of prefix examples and what they mean will help you apply logic to new words and decode them appropriately.

15 Prefixes That Negate Another Word

Several prefixes serve to make the new word mean the opposite, or nearly the opposite, of the original meaning of the base word. For example, consider the prefix de-. This prefix means to undo something and is usually attached to a verb. Using this prefix, you can take the verb activate, which means to put something to use, and change it to deactivate, which means to take something out of use.

Suffix	Meaning	Examples
a-	lacking, without, not	amoral, atheist, abiotic
ab-	away, removed, not	abnormal, abstract, absent
an-	without, not, lacking	amniocentesis, anaerobic, anacoustic, anhydrous
anti-	against, opposing, contrary to	antibiotic, antifreeze, antisocial
contra-	contrary to, against, opposing	contraindicated, contralateral, contraflow
counter-	opposing, contrary to, against	counterproposal, counteroffer, counter-attack
de-	reverse, undo, remove	deactivate, de-ice, deplane
dis-	remove, separate, apart from	disagree, disapprove, disconnect
ex-	away from, former, lacking	ex-husband, ex-wife, ex-boss
il-	not, lacking, without	illegal, illegible, illogical
im-	without, not, lacking	impossible, improper, impermeable
in-	no, without, lacking	injustice, incomplete, invisible

ir-	not, non, opposite	irreversible, irreplaceable, irregular
non-	not, lacking, without	nonexistent, nonfiction, nonnegotiable
un-	opposite, not, lacking	unkind, unresponsive, unruly

25 Common Prefixes in English With Examples

There are many prefixes that don't negate the original meaning of the root word, but rather alter it in unique ways, such as expressing relationships of time, place or manner. Prefixes are sometimes added to complete English words or to root word stems that can be traced to Latin or Greek.

Suffix	Meaning	Examples
ante-	before, prior to, front	antebellum, antechamber, anterior
auto-	self, one's self, yourself	autobiography, autograph, autonomy
circum -	around, go around	circumnavigate, circum-scribe, circumvent
co-	jointly, with, together	coexist, copilot, coworker
com-	together, with	commiserate, compart-ment, community
con-	with, together	confound, confluence, conversation
en-	put into, surround	encase, endow, envelope
exo-	out, outer	exhale, extend, exoskele-ton
extra-	beyond, more	extracurricular, extrater-restrial, extravert
hetero-	different, not the same	heterogeneous, heterosex-ual, heterocyst
homo-	same, not different	homogenize, homophone, homosexual
hyper-	extreme, beyond	hyperactive, hyperspace, hypertension,
inter-	between, in the midst of, among	intermittent, intersect, interstate
mega-	large, massive	megaphone, megadose, megabyte
micro-	small, tiny	microcosm, micro-phone, microscope
mid-	middle. midpoint	midnight, midseason, midterm
mis-	incorrect, bad, wrongful	misappropriate, misunder-stand, misuse
mono-	one, singular	monogamous, monotone, monochrome

over-	too much, excessive	overcook, overdone, overwrought
post-	after	postdate, postscript, post-war
pre-	before, prior to	prefix, preliminary, preschool
re-	again, do over	reconsider, re-evaluate, rewrite
semi-	partial, somewhat, less than fully	semiconductor, semester, semi-retired
sub-	below, beneath	subjugate, submarine, sub-par
trans-	across, change	transference, transgender, translate

Context Clues⁵ (with written texts)

Context clues are hints that an author gives to help define a difficult or unusual word within a book. The clue may appear within the same sentence as the word to which it refers or it may follow in the next sentence. Because most of our vocabulary is gained through reading, it is important that we are able to recognize and take advantage of context clues. Context is any written text such as a book, article, newspaper, etc.

What does a context clue look like?

There are at least four kinds of context clues that are quite common:

1. **Synonym (or repeat context clue):** An author will use more than one word that means the same thing. For example, there may be a complex word followed by a restatement using a simpler word in the same or following sentence: Felipe is a miser. He's always been cheap.
2. **Antonym (or contrast context clue):** The text may include a word or words that have the opposite meaning, which can reveal the meaning of an unknown term: Stella has always dressed flamboyantly. I've never seen her wear a dull color.
3. **Explanation (or a definition context clue):** An unknown word is explained within the sentence or in the sentence immediately after: On Friday, we visited the arboretum, a garden dedicated to the exhibition of trees and plants.
4. **Specific example (or an example context clue):** The text provides one or more examples used to define the term: The children were able to observe several crustaceans, including crabs, lobsters, and shrimp.

There may also be word-part context clues in which a common prefix, suffix, or root will suggest at least part of the meaning of a word.

A general sense context clue lets the reader puzzle out a word meaning from whatever information is available—and this is the most common kind of context clue. The relationships between words are not directly obvious and instead implied.

Others describe context clues in three ways:

1. **Semantic** or meaning clues: When reading a story about cats, good readers develop the expectation that it will contain words associated with cats, such as tail, purr, scratch, and whiskers.
2. **Syntactic** or word order clues: The order of the words in a sentence can indicate what part of speech a missing word must be (for example, a verb).
3. **Picture clues:** From an early age, beginning readers are taught to look at illustrations to help with the identification of a word.

asthma (attack) noun	a condition that causes a blockage of the airway and makes it difficult for a person to breathe	I carry an inhaler when I run because I have asthma.
bacteria noun	a disease-causing organism	To prevent the spread of bacteria it is important that nurses wash their hands often.
bedsore noun	wounds that develop on a patient's body from lying in one place for too long	If you don't get up and take a walk, you will develop painful bedsores.
benign adj	not harmful (not cancerous)	We're hoping that the tests will show that the lump in your breast is benign.
biopsy noun	removal of human tissue in order to conduct certain medical tests	The biopsy ruled out a number of illnesses.
blood count noun	the amount of red and white blood cells a person has	You will be happy to know that your blood count is almost back to normal.
blood donor noun	a person who gives blood to a blood bank or other person	Blood donors have to answer questions about their medical history.
blood pressure noun	the rate at which blood flows through the body (high/low)	High blood pressure puts you at risk of having a heart attack.
brace noun	a device that holds injured body parts in place	You will probably always have to wear a brace on your ankle when you jog.
breech adj	position of an unborn baby in which the feet are down and the head is up	We thought it was going to be a breech birth, but the baby turned himself around.
broken adj	a bone that is divided in two or more pieces as a result of an injury	We thought it was just a sprain, but it turned out his leg was broken.
bruise noun bruised adj	injured body tissue that is visible underneath the skin	The woman was badly bruised when she came into the emergency room.
Caesarean section, C-section noun	procedure that involves removing a baby from its mother through an incision in the woman's lower abdomen	The baby was so large that we had to perform a Caesarean section.
cancer noun	disease caused by the uncontrollable growth of cells	There are many different options when it comes to treating cancer.
cardiopulmonary resuscitation (CPR) noun	restoring a person's breath and circulation	You saved your brother's life by performing CPR.
cast noun	a hard bandage that is wrapped around a broken bone to keep it in place	My leg was in a cast for graduation.
chapel, chapeline noun	a place where loved ones can go to pray for a patient's recovery; a priest who visits patients in the hospital	If you want a place to pray, the chapel is on the third floor.
chemotherapy noun	type of treatment used on cancer patients	My mother has already had three rounds of chemotherapy.
chickenpox noun	a virus commonly contracted by children, characterized by itchy spots all over the body	It is best to get chickenpox as a child so that you don't get it worse as an adult.
coroner noun	a person who determines the cause of death after a person dies	We only call the coroner if we think a death is suspicious.

critical condition noun	requiring immediate and constant medical attention	You can't see her right now; she's in critical condition.
crutches noun	objects that people with injured legs or feet use to help them walk	I'd rather hop on one foot than use crutches.
cyst noun	a sac in the body-tissue filled with fluid (sometimes diseased)	We're going to remove the cysts just to be on the safe side.
deaf adj	unable to hear	The accident left the patient both deaf and blind.
deficiency noun	a lack of something necessary for one's health	The tests show that you have an iron deficiency..
dehydrated adj	in need of water	It is easy for the elderly to become dehydrated in this heat.
dementia noun	loss of mental capacity	It is hard to watch a loved one suffering with dementia.
diabetes noun	type of disease typically involving insulin deficiency	People with diabetes have to constantly check their blood sugar levels.
diagnosis noun	medical explanation of an illness or condition	The doctor would prefer to share the diagnosis with the patient himself.
discomfort noun	experiencing pain	This pain medication should relieve some of your discomfort.
disease noun	a medical disorder that is harmful to a person's health	I understand that this disease runs in your family.
dislocated adj	when a bone is temporarily separated from its joint	You will have to wear a sling because of your dislocated shoulder.
emergency noun	a medical problem that needs immediate attention	It is important that children know which number to dial in case of an emergency.
ER (emergency room) noun	the hospital room used for treating patients with immediate and life-threatening injuries	The child was rushed into the ER after he had a severe allergic reaction to a bee sting.
extrnal adj	on the outside	This cream is for external use only. Do not get it near your ears, eyes, or mouth.
false negative noun adj	a test that incorrectly comes back negative	We had two false negative pregnancy tests, so we didn't know we were having a baby.
family history noun	medical background of a person's family members	The doctor was concerned about my family history of skin cancer.
chemotherapy noun	type of treatment used on cancer patients	My mother has already had three rounds of chemotherapy.
fatal adj	causing death	The doctor made a fatal error when he wrote the wrong prescription.
fever noun feverish adj	higher than normal body temperature	He is very feverish, and his temperature is near danger point.

flu (influenza) noun	many types of respiratory or intestinal infections passed on through a virus	People who have the flu should not visit hospital patients.
fracture noun fractured adj	broken or cracked bone	Your wrist is fractured and needs a cast.
germ noun	a micro-organism, especially one that causes disease	Flowers are not allowed in the ward to avoid the risk of germs being brought in.
genetic adj	a medical condition or physical feature that is passed on in the family	The disease is part genetic and part environmental.
Growth adj	a ball of tissue that grows bigger than normal, either on or under the skin	That growth on your shoulder is starting to worry me.
Heart attack noun	instance in which blood stops pumping through the heart	People who smoke are at greater risk of having a heart attack.
HIV noun	the virus that infects the human T-cells and leads to AIDS	HIV can be passed down from the mother to her fetus.
Hives noun	bumps that appear on the surface of the skin during an allergic reaction	I broke out in hives after I ate that potato casserole.
illness noun ill adj	general term for any condition that makes a person feel sick for a certain period of time	Her illness went away when she started eating better.
immune system noun	the parts of the body that fight diseases, infections, and viruses	You can't have visitors because your immune system is low.
immunization noun immunize verb	an injection that protects against a specific disease	Babies are immunized three times in their first year.
incision noun	cut in the body made during surgery	I had to have stitches to close the incision.
inconclusive adj	unclear	We have to do more x-rays because the first ones were inconclusive.
infant noun	young baby	The nurse will demonstrate how to bathe an infant.
infection noun infected adj	diseased area of the body (viral or bacterial)	The wound should be covered when you swim to prevent it from becoming infected.
inflamed adj	appearance (red and swollen) of an injured body part	My right ankle was so inflamed it was twice the size of my left one.
injury noun	damage to the body	Her injuries were minor; just a few cuts and bruises.
intensive care unit (ICU) noun	section of the hospital where patients get constant attention and doctors rely on specialized equipment	She will remain in the ICU until she can breathe on her own.
internal adj	under the skin, inside the organs	The doctors will be monitoring her for any internal bleeding.
itchy adj	feeling discomfort on the skin's surface	If you are allergic to this medication your skin will get red and itchy.

IV noun	tests that come back from a laboratory and help doctors make a diagnosis	The lab results have come in and you are free to go home.
lab results noun	place where samples of blood/urine etc. are taken for testing	I'll take these samples down to the lab on my way out.
lab (laboratory) noun	a machine that keeps patients alive by helping them breathe	The woman has severe brain damage and is currently on life support.
life support noun	a medical condition or physical feature that is passed on in the family	The woman has severe brain damage and is currently on life support.
life-threatening adj	when injuries and conditions are extremely serious	The victim was shot in two places but the bullet wounds are not life-threatening.
light-headed adj	feeling of dizziness and being off-balance, caused by lack of oxygen in the brain	If you are feeling light-headed again, lie down and call me.
malignant adj	expected to grow and get much worse (especially related to cancerous cells)	I'm afraid at least one of the tumours is malignant.
medical school (med. school) noun	place where someone trains to be a doctor	After eight years of medical school I can finally practice medicine.
newborn noun	an infant that is less than three months old	You have to support her neck because she is still a newborn.
numb adj	no feeling in a certain body part	The needle will make your lower body feel numb.
OR (operating room) noun	the place where major surgeries and operations take place	You must wear a face mask and gloves while you are in the OR.
operation noun operate on verb	a medical procedure that involves going inside a person's body in an attempt to fix a problem	The operation lasted seven hours, but it was successful.
pain noun	strong discomfort in certain areas of the body	We gave your husband some medicine to relieve some of the pain.
pain killer, pain reliever noun	type of medicine that takes away some or all of the discomfort of an illness or injury	You can take two pain killers every four hours.
paralyzed adj	unable to move certain areas of the body	We thought her legs were paralyzed for life, but she is learning how to walk.
patient noun	a person staying in a hospital or medical facility	
pharmacist noun	a person who fills a doctor's prescription and gives people advice about medication	Ask the pharmacist if there is a generic brand of this medication.
pharmacy, drugstore noun	a place where people go to buy medication and other medical supplies	You should be able to buy a bandage at the pharmacy.
physician noun	doctor	Ask your family physician to refer you to a specialist.
poison noun poisonous adj	a substance that is very dangerous if it enters the human body	The child was bitten by a poisonous snake.

prenatal adj	the correct amount and type of medication needed to cure an illness or relieve symptoms	You will need to visit your doctor to get another prescription.
prescription noun prescribe verb	place where samples of blood/urine etc. are taken for testing	I'll take these samples down to the lab on my way out.
privacy noun private adj	being alone; personal (e.g. test results)	You will have to pay for a private hospital room if you don't want a room-mate.
radiation noun	high energy X-rays that destroy cancer cells	If the radiation doesn't kill all of the abnormal cells, the cancer will come back.
residency resident noun	part of a doctor's training that takes place in the hospital; a student working under a doctor	John is a resident under Dr Brown.
routine check-up noun	a doctor's appointment to check a person's general health	I'd like to see you a year from now for a routine check-up.
scrubs noun	plain uniform (usually green, white, or blue) worn by medical professionals	I have some extra scrubs in my locker.
scrub up verb	carefully wash hands before and after seeing a patient	I have to scrub up and get ready for surgery.
second opinion noun	input from a second doctor about an illness or symptom	I went to another doctor to get a second opinion about these headaches.
seizure noun	sudden violent movements or unconsciousness caused by electrical signal malfunction in the brain	People who suffer from epilepsy are prone to seizures.
shock noun	body not getting enough blood flow	The woman was in shock after being pulled from the river.
side effects noun	other symptoms that might occur as a result of a certain medication or procedure	One of the side effects of antidepressants is a loss of appetite.
sore adj	painful	I have a sore throat and a runny nose.
spasm noun	the uncontrollable tightening of a muscle	Ever since I injured my leg I've been having muscle spasms in my upper thigh.
specialist noun	a doctor that is an expert in a certain kind of medicine	My family doctor is sending me to a specialist.
sprain noun/verb	an injury (less serious than a break) to a joint (ankle, wrist, knee etc)	I sprained my knee playing soccer.
stable condition noun	a patient is stable if their medical condition is no longer changing rapidly	You can see your husband now; he is in a stable condition.
sting noun/verb	sharp, temporary pain	It may sting when I insert the needle.
stress noun stressed adj	worry that causes muscles to tighten and blood pressure to rise	You need to take some time off work and relieve some of your stress.
swelling noun swollen adj	ligaments (parts that hold the joints together) growing bigger and rounder after an injury to a joint	I knew my ankle was sprained because it was so swollen.

symptoms noun	pain or physical changes that occur because of an illness or disease	You have all of the symptoms of a diabetic.
temperature noun	amount of heat measured in a body; higher than normal temperature	We brought Jesse to emergency because he was running a (high) temperature.
tender adj	painful when touched or used	The incision was tender after the surgery.
test results noun	medical information that helps doctors understand a patient's condition or body	The test results came back negative. You aren't pregnant.
therapy noun	part of a doctor's training that takes place in the hospital; treatment aimed at improving a person's mental or physical condition	I was able to go back to work a few weeks after starting the therapy.
transplant noun	moving of an organ from one human to another	The heart transplant saved your life.
ultrasound noun	a test that examines the body's internal organs and processes using sound waves (often used during pregnancies)	The ultrasound shows that we are expecting a baby boy.
umbilical cord noun	the lifeline from the mother to the fetus (when cut at birth this forms the belly button)	I had an emergency C-section because the umbilical cord was wrapped around the baby's neck.
unconscious adj	alive, but appearing to be asleep and unaware of the surroundings	I hit my head on the steering wheel and was still unconscious when the ambulance arrived.
urine sample noun	a small amount of the body's liquid waste that is tested for different medical reasons	The urine sample tells us how much alcohol is in your blood.
vein noun	the thin tubes that transport blood around the body and back to the heart	I'm just looking for the best vein in which to insert the needle.
virus noun	a dangerous organism that causes the spread of minor and major diseases	The virus is contractable through the exchange of bodily fluids.
visiting hours noun	time of day when friends and family are allowed to visit patients in hospital	I'm afraid you'll have to come back during visiting hours.
vomit noun/verb	discharge of a person stomach contents through the mouth	The pregnant woman can't stop vomiting.
ward noun	a section of a hospital or health facility where patients stay	I should warn you that we're entering the mental health ward.
wheelchair noun	a chair on wheels used for transporting patients from place to place	If you get in the wheelchair I'll take you down to see the garden.
wound noun wounded adj	injury to body ("flesh wound" means not deep)	The wounded soldiers are being airlifted to the hospital.
x-ray noun/verb	a photograph of a person's bones and organs	The technician took x-rays of my shoulder to make sure it wasn't broken.

Reference- vocabulary lists	
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Glossary

ESP: English for Specific Purposes

HA: Health Academy

Module: the course that is offered within the Prep Block.

Topic: the lesson/s taught within the module each week during the Prep Block.

3

Medical English Vocabulary

Here is some essential vocabulary for nurses and medical professionals working in an English-speaking context. Each word is shown with its part of speech and meaning, while an example sentence shows the word in context.

word part of speech	Meaning	Examples Sentence
abnormal adj	not normal for the human body	This amount of weight loss is abnormal for women your age.
ache noun/verb	pain that won't go away	I can't sleep because my knees ache in the night.
acute adj	quick to become severe/bad	We knew the baby was coming right away because the woman's labour pains were acute.
allergy noun allergic adj	a body's abnormal reaction to certain foods or environmental substances (e.g. causes a rash)	Your son is extremely allergic to peanuts.
ambulance noun	emergency vehicle that rushes people to a hospital	We called the ambulance when Josh stopped breathing.
amnesia noun	a condition that causes people to lose their memory	I can't remember the accident because I had amnesia.
amputation noun amputate verb	permanent removal of a limb	We had to amputate his leg because the infection spread so quickly.
anaemia noun anaemic adj	occurs when the body doesn't have enough red blood cells	I have low energy because I am anaemic.
antibiotics noun	medication that kills bacteria and cures infections	My throat infection went away after I started the antibiotics.
anti-depressant noun	medication that helps relieve anxiety and sadness	The anti-depressants helped me get on with life after Lucy died.
appointment noun	a scheduled meeting with a medical professional	I've made you an appointment with a specialist in three week's time.
arthritis noun	a disease that causes the joints to become swollen and crippled	My grandmother can't knit anymore because the arthritis in her hands is so bad.