

Regional Office of Education 47

Unit/Module Overview

Title	Medical Ethics Kpi levels														
Competencies/ Concepts <i>What skills will be taught and assessed?</i>	1.1 Apply & adjust active reading strategies 1.2 Summarize a text 1.3 Expand Vocabulary 2.1 Analysis & interpretation 2.2 Synthesis of information 2.4 Use of evidence 3.1 Engaged readers 3.2 Contributing writers Skills: 1. Actively read, evaluate, and analyze a text. 2. Expand Vocabulary. 3. Evaluate and incorporate sources. 4. Research Project/Persuasive writing/Compare and contrast(????)														
Habits of Success Addressed	Check All That Apply: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">x</td> <td style="width: 45%;">Growth Mindset</td> <td style="width: 10%; text-align: center;">x</td> <td style="width: 35%;">Collaboration with Others</td> </tr> <tr> <td style="text-align: center;">x</td> <td>Agency</td> <td style="text-align: center;">x</td> <td>Self Reflection</td> </tr> <tr> <td style="text-align: center;">x</td> <td colspan="3">Work and Time Management</td> </tr> </table>			x	Growth Mindset	x	Collaboration with Others	x	Agency	x	Self Reflection	x	Work and Time Management		
x	Growth Mindset	x	Collaboration with Others												
x	Agency	x	Self Reflection												
x	Work and Time Management														
Length of Unit	6-6.5 Weeks														
Texts <i>Link in the texts that you will use</i>	Intros: Hook: My Sister's Keeper (Movie Clips) [Medical Emancipation]														

[What Is a Savior Sibling?](#) (Clip)
[Savior Sibling is Born after Embryo Selection in the United States](#) (Article)
[“Savior Siblings”](#) (Article)

Part 1:

[Medical Ethics: Right, Wrong, & The Space Between](#)- PDF and 4 Corners activity from Sanford (Or an activity based on this idea)
[The original Hippocratic oath](#)

****** [Henrietta Lacks, the Tuskegee Experiment, and Ethical Data Collection: Class Course Statistics #12](#)
(And/Or [The Appalling Tuskegee Syphilis Experiment](#) ; [Henrietta Lacks: The Immortal Woman](#) ; [The Curious Case of Alexis St. Martin](#))
[“In Evil’s Footsteps”](#) by John Martin (article with photos)

Part 2: (History of Medical Research)

Frankenstein [chapter 4](#) -Audio and text version
[Grave Robbers | National Geographic](#) video
[Frankenstein: Graveyards, Scientific Experiments and Body Snatchers](#) - Article
[Stiff by Mary Roach- Chapter 2, “Crimes of Anatomy”](#) (nonfiction-whole text pdf)

Choose an article:

[The Study of Anatomy in England from 1700 to the Early 20th Century](#) - Article
[Grave Robbing in the North and South in Antebellum America](#) - Article
[In Need of Cadavers, 19th Century Medical Students Raided Baltimore's Graves](#) - Article
[Such Horrible Business](#)-Website/Text

Part 3:

The Immortal Life of Henrietta Lacks ([Lesson Plan](#))
[Excerpt from *The Immortal Life of Henrietta Lacks*- “Prologue”](#)
[Taking the Least of You](#) - Article
[Cracking the Code of the Human Genome](#) - Article
[Ethics in Research](#) - Article
[Informed Consent](#) - Transcript: Video no longer available
[Property and Human Genetic Information](#) - Article

Part 4:

	<p>Extracting DNA - (Lesson Plan) **Basic Genetics - Website: students familiarize or re-familiarize themselves with the basics of DNA by navigating the website and answering basic questions How CRISPR Lets Us Edit Our DNA Jennifer Doudna (TED talk) Beyond CRISPR: What's Current and Upcoming in Genome Editing - Article University of Washington and Sana Researchers Use Gene Editing to Prep Stem Cells for Heart Repair - Article</p> <p>Part 5:</p> <p>Ethics and Reproductive Issues (Lesson Plan) Ethics of Designer Babies - article 'Disease' vs 'Difference': A Question of Eugenics - video **Designer Babies: Embryonic Genetic Selection -STUDENT GENERATED INFOGRAPHIC *Genetically-modified Babies 'Ethically Justifiable', Academic Claims - Article Why Making a Designer Baby Would Be Easier Said Than Done - Audio/Article Scientists Can Design 'Better' Babies. Should They? - Web page with articles</p> <p>Optional Materials: A Private Matter (Movie Clips - this is the entire movie) Third Trimester Abortion: Is Compassion enough? Late Abortion: A Comprehensive Review - article</p>
<p>What is the problem I am trying to solve or perspective I am trying to change? What do I want students to understand and do?</p>	<p>Students should understand that many medical advancements come with a “price.” They also should understand that there are many gray areas in advancing medical science and be able to explain different perspectives.</p>
<p>Hook</p>	<p>Watch excerpts from <i>My Sister's Keeper</i> movie followed by discussion of issues raised.</p>
<p>Compelling Question <i>What will students discover? What question will they</i></p>	<p><i>What are ethics/medical ethics?</i> Does the end justify the means? How do ethics play a role in advancing medical science? How does advancing medical science affect ethics?</p>

<p><i>answer by the end of the unit of instruction?</i></p>	<p>Do advances in medical science affect ethics or do ethics affect advances in medical science? Why?</p>	
<p>Relevance <i>How will this studio connect to your students? Why will students care about this?</i></p>	<p>Students will examine how medical ethics keep us safe, and will also be faced with difficult cases past and present where medicine crossed ethical boundaries for the good of humanity, as well as well-intended studies that led to questionable outcomes. They will care because it will allow them to form opinions on medical issues and will allow them to examine their own morals and principles. It is also relevant as we are currently living through the COVID 19 pandemic and medical ethics are being addressed on a daily basis.</p>	
<p>Culminating Performance Assessment <i>The final product. What will students create/do to show an understanding of the competencies in this studio? This should be linked in</i></p>	<p>Student researches a current medical ethics issue of choice and does a well-rounded presentation of the facts as well as varying viewpoints on the issue.</p>	
<p>Exhibition of Learning <i>How will students exhibit their learning?</i></p>	<p>I-search topic/presentation-multimedia 3 page, 1 inch margins, 12 point Times New Roman Paper: Students formulate a research question/questions based on ethical dilemmas surrounding the issue. Paper will focus on Search Story, Search Results, and Search Reflections sections Separate Works Cited page Multimedia presentation: ie PP, Slides, Prezi, video, etc. in which they discuss the information they found/their position on the topic they chose. Topic suggestions here</p>	<p>Students can summarize a text--KPI a, b Students can analyze and interpret texts--KPI a, c, d, e Students can identify the audience, purpose, and context of any given writing task--KPI a, b, c, d Students can demonstrate information literacy skills. As a contributing writer. . . --KPI a, b Students can engage with evidence while writing--KPI e</p>
<p>*Community</p>		

Engagement																				
Reflection Methods	<p>Check All That Apply:</p> <table border="1"> <tr> <td>x</td> <td>Journaling/Learning Log</td> <td>x</td> <td>Focus Groups</td> </tr> <tr> <td>x</td> <td>Whole-Class Discussion</td> <td>x</td> <td>Small Group Discussion (Fishbowl, Socratic, etc)</td> </tr> <tr> <td></td> <td>Surveys</td> <td></td> <td>Group Progress Log</td> </tr> <tr> <td></td> <td colspan="3">Other:</td> </tr> </table>				x	Journaling/Learning Log	x	Focus Groups	x	Whole-Class Discussion	x	Small Group Discussion (Fishbowl, Socratic, etc)		Surveys		Group Progress Log		Other:		
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	Surveys		Group Progress Log																	
	Other:																			
Student Voice and Choice <i>How are students demonstrating voice and choice?</i>	<p>Students choose partners for small group work. Students choose topic for culminating presentation (and possibly partner if allowed).</p>																			

Suggested Unit Tracker/Pacing*

Unit Components	Due Date
<p>Hook: Do The Ends Justify the Means?</p> <ul style="list-style-type: none"> ● My Sister's Keeper & Medical Emancipation - (Movie Clips) ● What Is a Savior Sibling? (Clip) ● Savior Sibling is Born after Embryo Selection in the United States (Article) ● "Savior Siblings" (Article) ● Note Organization Information Sheet ● Response to texts 	Day 1
<p>Part 1: What are medical ethics and why do we need them?</p> <ul style="list-style-type: none"> ● Medical Ethics: Right, Wrong, & The Space Between- PDF and 4 Corners activity from Sanford (Or an activity based on this idea) ● The original Hippocratic oath ● Henrietta Lacks, the Tuskegee Experiment, and Ethical Data Collection: Class Course Statistics #12 ● (And/Or The Appalling Tuskegee Syphilis Experiment ; Henrietta Lacks: The Immortal Woman ; The Curious Case of Alexis St. Martin ● "In Evil's Footsteps" by John Martin (article with photos) ● ACTIVITY**** 	Day 2 - 5
<p>Part 2: How does past medical research reflect medical ethics?</p> <ul style="list-style-type: none"> ● Frankenstein chapter 4 -Audio and text version ● Grave Robbers National Geographics video ● Frankenstein: Graveyards, Scientific Experiments and Body Snatchers - Article ● Stiff by Mary Roach- Chapter 2, "Crimes of Anatomy" (nonfiction-whole text pdf) ● ACTIVITY**** (Jigsaw?) Choose an article: <ul style="list-style-type: none"> ○ The Study of Anatomy in England from 1700 to the Early 20th Century - Article ○ Grave Robbing in the North and South in Antebellum America - Article ○ In Need of Cadavers, 19th Century Medical Students Raided Baltimore's Graves - Article ○ Such Horrible Business-Website/Text ● 	Day 6 - 10

	<p>Part 3: How has research changed to reflect or honor medical ethics?</p> <ul style="list-style-type: none"> ● The Immortal Life of Henrietta Lacks (Lesson Plan) ● Excerpt from The Immortal Life of Henrietta Lacks- “Prologue” ● Taking the Least of You - Article ● Cracking the Code of the Human Genome - Article ● Ethics in Research - Article ● Informed Consent - Transcript: Video no longer available ● Property and Human Genetic Information - Article ● ACTIVITY**** (Radium Girls??) 	11 - 15
	<p>Part 4: How has DNA science changed medical research?</p> <ul style="list-style-type: none"> ● Extracting DNA <ul style="list-style-type: none"> ○ **Basic Genetics - Website: students familiarize or re-familiarize themselves with the basics of DNA by navigating the website and answering basic questions ● How CRISPR Lets Us Edit Our DNA Jennifer Doudna (TED talk) ● Beyond CRISPR: What’s Current and Upcoming in Genome Editing - Article ● University of Washington and Sana Researchers Use Gene Editing to Prep Stem Cells for Heart Repair - Article ● ACTIVITY**** 	16-18
	<p>Part 5: How are medical ethics being challenged by DNA science?</p> <ul style="list-style-type: none"> ● Ethics and Reproductive Issues (Lesson Plan) ● Ethics of Designer Babies - article ● ‘Disease’ vs ‘Difference’: A Question of Eugenics - video <ul style="list-style-type: none"> ○ **Designer Babies: Embryonic Genetic Selection -STUDENT GENERATED INFOGRAPHIC (Activity?) ● *Genetically-modified Babies ‘Ethically Justifiable’, Academic Claims - Article ● Why Making a Designer Baby Would Be Easier Said Than Done - Audio/Article ● Scientists Can Design ‘Better’ Babies. Should They? - Web page with articles ● ACTIVITY**** ● Optional Materials: <ul style="list-style-type: none"> ● A Private Matter (Movie Clips - this is the entire movie) ● Third Trimester Abortion: Is Compassion enough? ● Late Abortion: A Comprehensive Review - article 	18-21 (23 w/ optional materials)

Culminating Project/Assessment: I-search topic/multimedia Presentation

Do advances in medical science affect ethics or do ethics affect advances in medical science? Why?

Research a controversial medical issue

Define/explain the topic

Analyze and discuss the controversy surrounding the topic

Take a position on it-is it ethical, do the ends justify the means?

22-30

24-30/32

Learning Plan

Learning Segment 1

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	<i>Hook (movie clip or reading passage)</i>
Competency/Skill/Concept	3.1 <i>Engaged readers</i> 3.2 <i>Contributing writers</i>
Activities <i>What will students be completing during class?</i> <i>Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	<i>Response to text</i>
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 2

Recommended Length of Time: 90 minutes (2 45-minute class periods)

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	<i>Medical Ethics: Right, Wrong, & The Space Between</i> 4 Corners activity
Competency/Skill/Concept	1.3 Expand Vocabulary 2.1 Analysis & interpretation
Activities <i>What will students be completing during class?</i> <i>Direct instruction should be 20 minutes or less.</i>	<i>Presentation/discussion</i> 4 Corners activity
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	<i>Share case studies from pdf</i>
Resource(s) <i>Link in Resources that you will use.</i>	<i>Medical Ethics: Right, Wrong, & The Space Between</i> https://research.sanfordhealth.org/sanford-promise/resources/slideshows/medical-ethics

Learning Segment 3

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 4

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 5

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 6

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 7

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 8

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	

Learning Segment 9

Recommended Length of Time:

Planning Components	
Component of Project <i>Which component of the project are you working on?</i>	
Competency/Skill/Concept	
Activities <i>What will students be completing during class? Direct instruction should be 20 minutes or less.</i>	
Check for Understandings <i>What are your formative assessments? How will they demonstrate what they've learned?</i>	
Resource(s) <i>Link in Resources that you will use.</i>	