

Social Studies Education Lesson Plan Template

Teacher Candidate Name: Ben Rall

Lesson Title/#: World Population

Grade Level: 9

Essential Question: How do historical events impact global population?

Lesson Foundations

Content Standards	WG.15: Patterns of settlement change over time in terms of functions, sizes, and spatial patterns (e.g., a canal town becomes an industrial city, a rural area becomes a transportation hub, cities merge into a megalopolis).		
Learning Objective(s)	<p>LO 1: Students will be able to describe how the global population has changed over time.</p> <p>LO 2: Students will be able to analyze how historical events have affected the world population.</p>	<p>Assessment(s)</p> <p>Include LO being addressed</p>	<p>A1: World Population Quiz (LO1)</p> <p>A2: Check for Understanding (LO1)</p> <p>A3: Population Growth Activity (LO2)</p> <p>A4: Check for Understanding (LO2)</p>
Materials & Resources	<p>Nearpod Presentation: https://share.nearpod.com/1DuQGYe2KS</p> <p>Origins Article: "Climate, Human Population and Human Survival: What the Deep Past Tells Us about the Future" https://origins.osu.edu/article/climate-human-population-and-human-survival-what-deep-past-tells-us-about-future/page/0/0</p> <p>Population Growth Video: https://populationeducation.org/curriculum-and-resources/world-population-video/</p> <p>World Population Map: http://worldpopulationhistory.org/map/2050/mercator/1.8/-512/-141/</p> <p>World Population Quiz: http://worldpopulationhistory.org/tools-resources/quiz/</p>		

Instructional Procedures/Steps

Note when you are addressing a learning objective and when enacting an assessment.

	Teacher will...	Student will...
	<p>Instructional procedure, questions you will ask, checks for understanding, transitions, and evidence of teaching practices for citizenship education.</p>	<p>What will students be doing?</p> <p>What evidence of learning will students demonstrate?</p> <p>Student-centered learning/opportunities for practice and application.</p>
<p>Opening</p> <p>__10__ Minutes</p>	<p>1) Global Population Quiz (A1): Class will begin with students taking a quiz on world population from WorldPopulationHistory.org</p>	<p>1) Global Population Quiz (A1): Students will begin class by joining the Nearpod lesson on their iPad, or other electronic device.</p>

- a) The quiz will be conducted via Nearpod, as will all other activities for the lesson
- b) Students will be able to view the Nearpod presentation on their iPad, and the presentation will be displayed on the projector screen at the front of the classroom as well.
- c) Students will answer the following multiple choice questions, serving as a pre-assessment of their knowledge on the topic:
 - i) Which is the largest sector for the employment of women worldwide?
 - (1) Teaching
 - (2) Secretarial Work
 - (3) Factory Work
 - (4) Agriculture
 - ii) What would world population be by 2100 if the rate at which children are born remains the same? (2.5 children per woman)
 - (1) 10 billion
 - (2) 15 billion
 - (3) 20 billion
 - (4) 30 billion
 - iii) In 1950 there were two megacities of over 10 million people (Tokyo and New York City). How many megacities were there in 2016?
 - (1) 19
 - (2) 28
 - (3) 31
 - (4) 42
 - iv) What did German chemists Fritz Haber and Carl Bosch invent in the early 20th Century that enabled significant population growth in the following decades?
 - (1) Water desalination process (making saltwater drinkable)
 - (2) Nitrogen-based fertilizer

- a) The join code will be posted on the projector screen at the front of the classroom
- b) When all students have joined the presentation, they will participate in the global population quiz facilitated via the poll feature on Nearpod.
- c) The correct answers for the quiz are:
 - i) Which is the largest sector for the employment of women worldwide?
 - (1) Teaching
 - (2) Secretarial Work
 - (3) Factory Work
 - (4) **Agriculture**
 - ii) What would world population be by 2100 if the rate at which children are born remains the same? (2.5 children per woman)
 - (1) 10 billion
 - (2) 15 billion
 - (3) 20 billion
 - (4) **30 billion**
 - iii) In 1950 there were two megacities of over 10 million people (Tokyo and New York City). How many megacities were there in 2016?
 - (1) 19
 - (2) 28
 - (3) **31**
 - (4) 42
 - iv) What did German chemists Fritz Haber and Carl Bosch invent in the early 20th Century that enabled significant population growth in the following decades?
 - (1) Water desalination process (making saltwater drinkable)
 - (2) **Nitrogen-based fertilizer**

	<p>(3) Small pox vaccine (4) Malaria vaccine</p> <p>v) In what year was the birth control pill approved by the US Food and Drug Administration? (1) 1940 (2) 1960 (3) 1972 (4) 1980</p> <p>vi) What were the two most populous countries in year 1 CE? (1) India and Mexico (2) China and Italy (3) China and India (4) Egypt and Greece</p> <p>vii) By 2050 most of the global population growth will occur in which world region? (1) Africa (2) Asia (3) Europe (4) South America</p> <p>viii) During the late 1950's at the height of the baby boom in the US, what was the national fertility rate (number of children per woman average)? (1) 2.6 (2) 3.3 (3) 3.7 (4) 4.1</p> <p>ix) Without further action to protect coral reefs from the effects of climate change and other environmental threats, the world wildlife fund projects how much of the reefs would be lost by 2033? (1) 25% (2) 35% (3) 50%</p>	<p>(3) Small pox vaccine (4) Malaria vaccine</p> <p>v) In what year was the birth control pill approved by the US Food and Drug Administration? (1) 1940 (2) 1960 (3) 1972 (4) 1980</p> <p>vi) What were the two most populous countries in year 1 CE? (1) India and Mexico (2) China and Italy (3) China and India (4) Egypt and Greece</p> <p>vii) By 2050 most of the global population growth will occur in which world region? (1) Africa (2) Asia (3) Europe (4) South America</p> <p>viii) During the late 1950's at the height of the baby boom in the US, what was the national fertility rate (number of children per woman average)? (1) 2.6 (2) 3.3 (3) 3.7 (4) 4.1</p> <p>ix) Without further action to protect coral reefs from the effects of climate change and other environmental threats, the world wildlife fund projects how much of the reefs would be lost by 2033? (1) 25% (2) 35% (3) 50%</p>
--	--	--

	<p>(4) 60%</p> <p>x) The international community agreed to phase out use of chlorofluorocarbons (gas that was in refrigerators) in 1987 to address which problem?</p> <p>(1) Ocean acidity (2) Hole in the ozone layer (3) Smog (4) Asthma</p> <p>d) As we go through the quiz I will ask questions expanding on some of the concepts as a Check for Understanding (A2)</p> <p>i) What is the world population today? ii) Why would fertilizer help to increase population growth?</p> <p>iii) Why would Africa be experiencing the greatest world population growth by 2050?</p> <p>2) Introduction of Learning Objectives and Essential Question: Following the quiz, I will introduce the learning objectives for the day and the essential question for the unit, encouraging students to continue to think about the essential question as we move forward with the day's activities and with the unit.</p>	<p>(4) 60%</p> <p>x) The international community agreed to phase out use of chlorofluorocarbons (gas that was in refrigerators) in 1987 to address which problem?</p> <p>(1) Ocean acidity (2) Hole in the ozone layer (3) Smog (4) Asthma</p> <p>d) Throughout the quiz, students will be asked a series of questions to expand their knowledge on particular topics addressed in the quiz.</p> <p>i) About 7 and a half billion ii) It would lead to better crop production, giving people more food to eat and decreasing the likelihood of famine/starvation. iii) Factors include: improving healthcare, decreasing death from some diseases, and a lack of birth control across much of the continent.</p> <p>2) Introduction of Learning Objectives and Essential Question: After the quiz students will be introduced to the learning objectives for the day and the essential question for the unit, and will be encouraged to think about the essential question moving forward with the lesson and the unit.</p>
<p>Instruction ___30___ Minutes</p>	<p>1) Origins Article Discussion: Students will have been assigned to read the Origins article on population growth and climate change prior to class.</p> <p>a) There will be a brief discussion on the article, guided by the following questions:</p> <p>i) What current relationship does the article describe between humans and the environment?</p>	<p>1) Origins Article Discussion: Following the introduction of the LO's and EQ students will participate in a brief discussion on the Origins article that had been assigned for today</p> <p>a) Potential answers to guiding questions:</p> <p>i) Rising human populations and technological improvements/inventions greatly shape the environment.</p>

	<p>ii) How has this relationship changed over time?</p> <p>2) Population Growth Video: After the Origins article discussion I will show a brief video from PopulationEducation.org on the history of population growth.</p> <p>a) Prior to watching the video I will encourage students to think about what factors have helped/hindered population growth as seen in the video.</p> <p>b) After watching I will then ask students to share what they believe those factors were.</p> <p>3) Population Growth Activity (A3): Following the video, students will now work in groups to argue what the five most important events that affected the world population (either led to its increase or decrease).</p> <p>a) To do so students will be given access to an interactive map from WorldPopulationHistory.org</p> <p>i) Prior to students beginning group work I will briefly demonstrate how to use the map</p> <p>b) Each group will be tasked with choosing five events listed on the timeline that they believe were most significant in affecting the world population, and explaining why they chose them.</p> <p>c) One member of the group will be tasked with writing the group's response and submitting it via Nearpod on their iPad, the other students will be tasked with researching events to select via the interactive map on WorldPopulationHistory.org.</p>	<p>ii) For most of human history humans were forced to react to environmental changes, now human actions are changing the environment.</p> <p>2) Population Growth Video: Following the Origins article discussion students will be shown a brief video on the history of population growth.</p> <p>a) Students will be asked to consider factors that helped hindered population growth in the video</p> <p>b) Potential factors include: industrial revolution, agricultural revolution, modern medicine, etc.</p> <p>3) Population Growth Activity (A3): After watching the video students will now be asked to work with their desk group to choose what they believe are the five most important events that affected the world population.</p> <p>a) Groups will choose their events from an interactive map from WorldPopulationHistory.org</p> <p>b) In addition to choosing the events, groups must also explain why they believe each event was significant.</p> <p>c) Potential events chosen include:</p> <p>i) The Black Death-this wiped out a significant portion of the population in Europe</p> <p>ii) Smallpox Vaccine-first real cure for this deadly disease which had killed many before, notably Native Americans upon arrival of European explorers</p> <p>iii) New Farm Equipment-increased agricultural yields, also allowing people to pursue work outside of agriculture</p>
--	---	---

	<p>d) While students are working in groups I will be walking around to check in with groups, and asking questions to:</p> <p>i) Facilitate learning:</p> <p>(1) How are you choosing your events? (2) How else could you choose them?</p> <p>ii) Extend learning:</p> <p>(1) How would you rank your five events from most important to least important? Explain how chose your order.</p> <p>(2) Is there a particular theme on the map that you believe is more important than the others?</p>	<p>iv) Invention of Air Conditioning-allowed people to live in places that had previously been inhospitable (Phoenix, AZ, etc.)</p> <p>v) World War I-killed many in Europe, particularly young men, creating a disillusioned “lost generation”</p> <p>vi) Etc.</p>
<p>Closure ___8___ Minutes</p>	<p>1) Whole Class Discussion: After all groups have submitted their responses via Nearpod, I will ask for groups to share what they came up with.</p> <p>a) Responses will also be displayed via Nearpod as each group is sharing</p> <p>b) This discussion will also serve as a Check for Understanding (A4) guided by the following questions:</p> <p>i) Why is discussing global population growth important?</p> <p>ii) What will be some effects if the world population continues to increase at its current rate?</p>	<p>1) Whole Class Discussion: Following the submission of all groups’ responses, groups will be asked to share their top five most important events.</p> <p>a) Students will also participate in a discussion wrapping up the lesson.</p> <p>i) The increasing global population means that resources are becoming scarcer.</p> <p>ii) It will become more difficult to produce enough food to sustain the world population, effects of climate change could be exacerbated, etc.</p> <p>b) Students will be asked to answer the essential question.</p>

	<p>c) During this discussion I will also reintroduce the essential question, calling on students to answer it now.</p> <p>i) How do historical events impact global population?</p>	<p>i) Historical events, many of which are caused by human actions, can greatly effect human population. Some of these events do cause the global population to contract, though the general trend has led to an increase in the global population.</p>
Planned Supports	Whole Class Supports: Visual support via Nearpod, Population Growth Video & Map; closed captions displayed during video.	