

“TRIGGERS OF CHANGE”

Essential Question: What activities will allow third graders to become thinkers, problem-solvers, and visionaries for the future?

Sub-Questions:

- What activities will help third graders to understand the cause-and-effect that happens in real life?
 - ⇒ To consider the “triggers of change” in communities: past, present, and future (How communities grow and change)
 - ⇒ To look at current problems in our world and consider what caused them, and how they might be solved (cause-effect, problem-solving)
 - ⇒ To consider what effect current triggers (inventions, discoveries, actions) may have on the future (and if the effect is a problem, to consider possible solutions)
- What activities will help third graders to “compare and contrast” the communities of the past, present, and future?
 - ⇒ To consider the basics of what a community needs to exist (minimal technology). Look at what technology was used by the early civilizations of the Egyptians, Vikings, and the Maya/Aztecs, and/or the pioneers of Colonial times, and compare to what our life is like today.
 - ⇒ To consider where, why, and how communities develop (and how we know about early communities through artifacts)
 - ⇒ To use the “triggers of change” in the past to help predict what today may become a “trigger of change” for the future (look at the past and see the future)
 - ⇒ To envision how a future community might develop on a Mars colony, or in a space station. (Would early life on a Mars colony be more like the Pioneer life in Colonial times if electricity was not available?) Compare the technology used in the future on Mars (or on a Space Station) with what we use today, or what was used in the past.

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<p>To consider the basics of what a community needs to exist (minimal technology).</p> <p>To look at what technology was used by the early civilizations of the Egyptians, Vikings, and/or the Inca/Maya/Aztecs, and/or the pioneers of Colonial times, and compare to what our life is like today.</p>	<p>SOCIAL STUDIES, TECHNOLOGY, RESEARCH, READING COMPREHENSION, WRITING</p> <p>Use rubrics for:</p> <ol style="list-style-type: none"> Double-T Graphic Organizer Main Idea/Detail (past) Main Idea/Detail (present) Written paragraphs <p>Does the student identify similarities and differences between life in early communities and life today?</p> <p>Is the student able to identify what types of technology helped people to survive back in early communities (to get food, water, clothing, shelter, etc.)?</p>	<ol style="list-style-type: none"> Students brainstorm a list of what we need to survive (food and water, shelter, warmth, protection from predators, etc.) ^{A.} Students research their country (Egypt, Scandinavia, or Mexico/Peru) and fill out a Double-T graphic organizer that compares their early community (no electricity) to our present day. ^{B.} <table border="1"> <thead> <tr> <th>THEN</th><th></th><th>NOW</th></tr> </thead> <tbody> <tr><td></td><td>Shelter</td><td></td></tr> <tr><td></td><td>Source of Food</td><td></td></tr> <tr><td></td><td>Source of Water</td><td></td></tr> <tr><td></td><td>Clothing (how do they get it)</td><td></td></tr> <tr><td></td><td>Protection from predators</td><td></td></tr> <tr><td></td><td>Transportation</td><td></td></tr> <tr><td></td><td>Writing</td><td></td></tr> <tr><td></td><td>Communication</td><td></td></tr> <tr><td></td><td>Light</td><td></td></tr> <tr><td></td><td>Music</td><td></td></tr> <tr><td></td><td>Games/Sports</td><td></td></tr> </tbody> </table> <ol style="list-style-type: none"> Student (or teacher) selects 3 of the categories from the Double-T graphic organizer. ^{B.} Student writes a report to compare and contrast how people lived (particularly in regards to what technology was used) in the past vs. today. <p>Activity: Students create item from their early community (house, tool, clothing, jewelry, food, sample of writing, art, music). (See Table of Resources for activities)</p>	THEN		NOW		Shelter			Source of Food			Source of Water			Clothing (how do they get it)			Protection from predators			Transportation			Writing			Communication			Light			Music			Games/Sports	
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<p>To consider where, why, and how communities develop (and how we know about early communities through artifacts)</p> <p><i>(lessons 4, 5, 6 from my archaeology unit would be useful here.)</i></p>	SOCIAL STUDIES	<p>What ideas do the students come up with for why WATER would be useful to have in or near a community?</p> <p>As students look at example artifacts, what clues do they notice about life was like in the community?</p>	<p>Pose scenarios #4, 5, 6 in Archaeology Unit lesson 4. Main Points:</p> <ul style="list-style-type: none"> If people are looking for somewhere to build a community, the one thing they HAVE to have access to is WATER. Sometimes a town is built on top of an older abandoned town. Artifacts provide us with clues about what life was like in older communities. <p>EXTENTION: Look at the artifacts found on the Vasa Warship that sunk off the coast of Sweden. Talk about what we can learn from them. (lesson 5 in archaeology unit)</p> <p>ACTIVITY: Create a classroom museum. (lesson 6 in archaeology unit)</p>
	SOCIAL STUDIES	<p>The literal answer for why the Aztecs chose that location is that the "gods gave them a sign." However, a deeper level of comprehension could be assessed if the student says WATER.</p>	<p>SOCIAL STUDIES book p. 171 – 175 (lesson 3: The Aztec community of Tenochtitlan)</p> <p>Discussion: Why do you think the Aztecs chose this place for their city?</p> <p>Why did they build canals and causeways?</p> <p>There is an artifact on p. 175. What does it tell us about how the Aztecs lived? (ground corn into flour)</p>
<p>To use the "triggers of change" in the past to help predict what today may become a "trigger of change" for the future (look at the past and see the future)</p>		<p>Assess student's participation in the class discussion.</p>	<p>Continue...</p> <p>SOCIAL STUDIES book p. 171 – 175 (lesson 3: The Aztec community of Tenochtitlan)</p> <p>Discussion: What caused the change from Tenochtitlan to Mexico City? (war, use of weapons)</p> <p>Could the use of weapons cause our present communities to change? How? Is it a change we want? What are some events that could help solve that problem?</p>
(continued)		<p>The concept of isolation being a problem is very abstract, and may be difficult for some students to grasp. This may be more appropriate as an extension for the students who need an extra challenge.</p>	<p>Students (whole class or small group) brainstorm all the past inventions that have caused people to be more solitary and less part of a community (car, phone, TV, Internet). On overhead, create a cause/effect graphic organizer so that: BEFORE: People are social members of a community. CAUSE of change: 1. Car, 2. Phone, 3. Internet AFTER: People are more isolated.</p> <p>Ask students to consider if it is a problem that technology is helping people become more and more isolated from each other. What problems could it create? (People don't learn how to work together.)</p> <p>What new technology do students think will be</p>

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			<p>developed, and do they think it will cause us to be more social or more solitary?</p> <p>Students brainstorm their ideas for how the problem of technology-caused isolation may be solved.</p> <p>ACTIVITY: Students (small groups) create posters to advertise their ideas for encouraging people to work together, be a team, be social.</p>						
<p>To envision how a future community might develop on a Mars colony, or in a space station.</p> <p>Compare the technology used in the future on Mars (or on a Space Station) with what we use today, or what was used in the past.</p>	SOCIAL STUDIES, SCIENCE, MATH, TECHNOLOGY, COMPREHENSION SKILLS	<p>The categories being compared are a cumulative list of topics covered over the year in third grade. Assess how well the students are able to take what they have learned, such as about animal adaptations, and apply it to a hypothetical situation – one that requires them to “think,” to problem-solve, and to use their imagination – to have a vision for the future.</p> <p>If electricity is not available, do students see a comparison between life on Mars and life in the days of early civilizations with minimal technology?</p> <p>If people moving to the Mars colony are coming from different countries of the world, do students consider the dilemma of which language will be spoken, which measurement system will be used, what type of money they will use (if any), what type of government they will have, etc.</p> <p>EXTENSIONS: Have students design experiments (or have one experiment pre-designed) to show what life on Mars might be like. (i.e. Can a plant live with sunlight and water, but without oxygen?)</p> <p>Does Mars have an alternative source of energy other than oil?</p>	<p>Students hypothesize what life in a colony on Mars might look like (or life in a Space Station).</p> <ul style="list-style-type: none">For a colony on Mars, assume there is no electricity available in the beginning.What does the community need in order to survive?Would early life on a Mars colony be more like the Pioneer life in Colonial times if electricity were not available? <p>Students use a Double-T graphic organizer to observe what the similarities and differences to life on Earth might be.</p> <table><tr><th>MARS</th><th></th><th>EARTH</th></tr><tr><td></td><td>Shelter Food Water Heat Oxygen (air) Climate Animals Plants Landforms Bodies of water Transportation Communication Measurement Money Language Music Electricity Education Government Games/Sports Health Care</td><td></td></tr></table>	MARS		EARTH		Shelter Food Water Heat Oxygen (air) Climate Animals Plants Landforms Bodies of water Transportation Communication Measurement Money Language Music Electricity Education Government Games/Sports Health Care	
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	CREATIVE WRITING	<p>Use rubric to assess the Story Map graphic organizer and the story. Does the solution match the problem? Is the problem a result of something to do with technology? Does technology play a role in helping to solve the problem?</p>	<p>Students write a Sci-Fi story about what life on a Mars colony might be like. To help organize the story, first create a Story Map that poses a problem, events that help solve the problem, and a solution. “Letter from Future”</p> <p>ACTIVITY: Make a diorama of life in a Mars colony.</p>						