In addition to having all lessons/materials in OneNote for our students, we have also developed a group for each of our classes in Teams. We have had a live meeting with 3rd, 4th, and 5th grades. We have recorded this meeting so anyone that missed it could view it at a later time. We have recorded a video for KK, 1, & 2 to watch that will help explain the weekly lessons.

**KK & 1 Lessons**

Week of 3/16/20

**TAG Strategy for this lesson: Inductive/Deductive Lesson  Lesson 1**

<table>
<thead>
<tr>
<th>Unit Name</th>
<th>Lesson Name</th>
<th>Time Needed (Hours/Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American The Beautiful</td>
<td>Introduction to American Geography</td>
<td>1 day</td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Subject</th>
<th>GA Standards of Excellence &amp; TAG Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-2</td>
<td>Talented and Gifted</td>
<td>SSKG2 Explain that a map is a drawing of a place and a globe is a model of Earth.</td>
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<tr>
<td></td>
<td>Course</td>
<td>a. Differentiate land and water features on simple maps and globes.</td>
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<td>b. Explain that maps and globes show a view from above.</td>
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<td>c. Explain that maps and globes show features in a smaller size.</td>
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<td>SS1G3 Locate major topographical features of the earth’s surface.</td>
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<tr>
<td></td>
<td></td>
<td>a. Locate all of the continents: North America, South America, Africa, Europe, Asia, Antarctica, and Australia.</td>
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<td></td>
<td>b. Locate the major oceans: Arctic, Atlantic, Pacific, and Indian Ocean.</td>
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<td>c. Identify and describe landforms (mountains, deserts, valleys, and coasts).</td>
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<td>SS1E1 Identify goods that people make and services that people provide for each other.</td>
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<td>Directed Study and Advanced Research Skills (ARS): K.1, 1.1, 2.1 Investigate/explore topic chosen by the teacher.</td>
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<td></td>
<td></td>
<td>K.6, 1.6 Analyze data using visual organizers, books, reference materials, electronic media.</td>
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<td>K.7, 1.7, 2.8 Draw valid conclusions guided by the teacher. K.8, 1.8 Share results with peers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2 Examine key questions posed by the teacher. 2.3 Utilize question to guide research. 2.5 Implement a research methodology chosen by the teacher. 2.7 Gather, organize and analyze data using visual organizers, books, reference materials. 2.9 Share results through a product(s) chosen by the teacher.</td>
</tr>
</tbody>
</table>
Essential Question(s)

What should students know when lesson is completed?

Essential Question: What impact do American symbols, songs, holidays, geography, economics, and government have on us today?

Question of the Day: What geographical features can be found in America?

Teacher Lesson Preparation

Materials: one Inductive/Deductive sheet per group each on a different color of paper, glue, scissors, poster board, butcher paper, American map transparency, yarn, resource books, encyclopedias, computers with Internet access, dictionaries, one American Geography Travel Brochure Directions Sheet per person, tag board, markers/crayons/colored pencils, at least one American Geography Travel Brochure Peer PMI per person, ATB Investigators Handbook

Activating Strategy (for example: Hook/Mini-Lesson/Warm-Up/Connection to Prior Learning)

1. Before this lesson begins, you should copy the Inductive/Deductive Lesson List of Words on a different color paper for each group of children. You should trace a map of America onto a large piece of butcher paper for the bulletin board as well. You can print off an outline map of the U.S. at www.enchantedlearning.com/geography/outlinemaps/usa.shtml

2. Pass out a list of words, scissors, glue, a marker, and poster board to each group of students. Have the students cut all of the words out and place them in categories on the poster board. Have them glue the words and write the name of each category at the top. When all of the groups are done, display the poster boards around the room and have students do a museum walk to see what categories each group used.

Instructional Sequence and Activities including use of technology

1. Introduce Vocabulary to students
2. Students will test what they know about landforms and famous places in the US
3. Teacher will use Brain Pop Jr to introduce landforms to students, if time permits, students can take the easy and hard quiz
4. Teacher will pass out a list of famous places, and students will break into groups to learn more about their assigned famous place
5. Students will use books from library and online resources to learn more about their famous places, and will then create a travel brochure
6. Students will describe their famous place in detail, as well as add illustrations
7. Students will also discuss the geographical feature that located in this famous place with a definition in their own words
8. Students will list interesting facts about their famous place in their brochure, and will also add information about the climate
9. When all of the students are finished, each group should present their travel brochure to the class. Each person should also be responsible for giving feedback to at least one other group using the American Geography Travel Brochure Peer PMI. Travel brochures can be displayed on the bulletin board. Using a piece of yarn, have each group link their brochure to the map.

Assessment Strategies
American Geography Travel Brochure Peer PMI □ ATB Investigators Handbook

Differentiation
Scaffolds/Interventions/Extensions/Enrichment
Students that finish early can begin to label the states and capitals on the USA bulletin board map

Materials/Links/Text References/Resources
https://jr.brainpop.com/science/land/landforms/
http://www.nps.gov/parks.html
www.weather.com

Week of 3/23/20

TAG Strategy for this lesson: Inductive/Deductive Lesson   Lesson 2

Unit Name
American The Beautiful

Lesson Name   Time Needed (Hours/Days)
Introduction to American Geography  2 days

Grade   Subject   Course
K-2   Talented and Gifted   Advanced Research Skills

GA Standards of Excellence & TAG Standards
Please include both GSE & TAG Standards
SSKG2 Explain that a map is a drawing of a place and a globe is a model of Earth.
a. Differentiate land and water features on simple maps and globes.
b. Explain that maps and globes show a view from above.
c. Explain that maps and globes show features in a smaller size.

SS1G3 Locate major topographical features of the earth’s surface.
a. Locate all of the continents: North America, South America, Africa, Europe, Asia, Antarctica, and Australia.
b. Locate the major oceans: Arctic, Atlantic, Pacific, and Indian Ocean.
c. Identify and describe landforms (mountains, deserts, valleys, and coasts).

SS1E1 Identify goods that people make and services that people provide for each other.

Directed Study and Advanced Research Skills
(ARS): K.1, 1.1, 2.1 Investigate/explore topic chosen by the teacher.
K.6, 1.6 Analyze data using visual organizers, books, reference materials, electronic media.
K.7, 1.7, 2.8 Draw valid conclusions guided by the teacher. K.8, 1.8 Share results with peers.
2.2 Examine key questions posed by the teacher. 2.3 Utilize question to guide research. 2.5
Implement a research methodology chosen by the teacher. 2.7 Gather, organize and analyze
data using visual organizers, books, reference materials. 2.9 Share results through a
product(s) chosen by the teacher.

Advanced Communication Skills (ACS): K.2, 1.2, 2.2 Share information in front of class. K.3,
1.3 Compose written material/picture story. K.4, 1.4 Produce a product following guidelines
established by the teacher. K.5, 1.5, 2.7 Demonstrate originality. 2.3 Compose written
material with a beginning, middle, and end. 2.4 Proofread written material. 2.5 Adhere to
assigned criteria. 2.6 Use main ideas to create a product.

Essential Question(s)
What should students know when lesson is completed?

Essential Question: What impact do American symbols, songs, holidays, geography, economics,
and government have on us today?
Question of the Day: What geographical features can be found in America?

Teacher Lesson Preparation
Materials: one Inductive/Deductive sheet per group each on a different color of paper, glue,
scissors, poster board, butcher paper, American map transparency, yarn, resource books,
encyclopedias, computers with Internet access, dictionaries, one American Geography Travel
Brochure Directions Sheet per person, tag board, markers/crayons/colored pencils, at least one
American Geography Travel Brochure Peer PMI per person, ATB Investigators Handbook

Activating Strategy (for example: Hook/Mini-Lesson/Warm-Up/Connection to Prior Learning)
1. Before this lesson begins, you should copy the Inductive/Deductive Lesson List of Words on a
different color paper for each group of children. You should trace a map of America onto a large
piece of butcher paper for the bulletin board as well. You can print off an outline map of the U.S. at
www.enchantedlearning.com/geography/outlinemaps/usa.shtml

2. Pass out a list of words, scissors, glue, a marker, and poster board to each group of students. Have
the students cut all of the words out and place them in categories on the poster board. Have them
glue the words and write the name of each category at the top. When all of the groups are done, display the poster boards around the room and have students do a museum walk to see what categories each group used.

**Instructional Sequence and Activities including use of technology**

1. Introduce Vocabulary to students
2. Students will test what they know about landforms and famous places in the US
3. Teacher will use Brain Pop Jr to introduce landforms to students, if time permits, students can take the easy and hard quiz
4. Teacher will pass out a list of famous places, and students will break into groups to learn more about their assigned famous place
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9. When all of the students are finished, each group should present their travel brochure to the class. Each person should also be responsible for giving feedback to at least one other group using the American Geography Travel Brochure Peer PMI. Travel brochures can be displayed on the bulletin board. Using a piece of yarn, have each group link their brochure to the map.

**Assessment Strategies**

- American Geography Travel Brochure Peer PMI
- ATB Investigators Handbook

**Differentiation**

**Scaffolds/Interventions/Extensions/Enrichment**

Students that finish early can begin to label the states and capitals on the USA bulletin board map

**Materials/Links/Text References/Resources**

- [http://www.nps.gov/parks.html](http://www.nps.gov/parks.html)
- [www.weather.com](http://www.weather.com)

Week of 3/30/20

**TAG Strategy for this lesson:** Encounter Lesson Lesson 3

**Unit Name**

- America The Beautiful
Lesson Name                                                                                           Time Needed (Hours/Days)
------------------------------------                                                                                     1 day
American Songs and Symbols

Grade | Subject | Course
--- | --- | ---
K-2 | Talented and Gifted | Advanced Research Skills

GA Standards of Excellence & TAG Standards
Please include both GSE & TAG Standards

SSKH2 Identify the following American symbols:
   a. The national and state flags (United States and Georgia flags)
   b. Pledge of Allegiance
   c. Star Spangled Banner (identify as the national anthem)
   d. The bald eagle
   e. The Statue of Liberty
   f. Lincoln Memorial (identify image and associate with Abraham Lincoln and Presidents Day)
   g. Washington Monument (identify image and associate with George Washington and Presidents Day)
   h. White House (identify image and associate with Presidents Day and the current president)

SS1CG2 Explore the concept of patriotism through the words in the songs America (My Country ‘Tis of Thee) and America the Beautiful (for example: brotherhood, liberty, freedom, pride, etc.).

SS2CG2 Identify the following elected officials of the executive branch and where they work:
   a. President (leader of our nation) and Washington, D.C. – White House
   b. Governor (leader of our state) and Atlanta, GA – State Capitol Building
   c. Mayor (leader of a city) and city hall

SKE2. Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).
   a. Ask questions to identify and describe earth materials—soil, rocks, water, and air.
   b. Construct an argument supported by evidence for how rocks can be grouped by physical attributes (size, weight, texture, color).
   c. Use tools to observe and record physical attributes of soil such as texture and color.

SKP1. Obtain, evaluate, and communicate information to describe objects in terms of the materials they are made of and their physical attributes.
   a. Ask questions to compare and sort objects made of different materials. (Common materials include clay, cloth, plastic, wood, paper, and metal.)
   b. Use senses and science tools to classify common objects, such as buttons or swatches of cloth, according to their physical attributes (color, size, shape, weight, and texture).
   c. Plan and carry out an investigation to predict and observe whether objects, based on their physical attributes, will sink or float.

SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.
   a. Construct an explanation based on observations to recognize the differences between organisms and nonliving objects.
   b. Develop a model to represent how a set of organisms and nonliving objects are sorted into groups based on their attributes
SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.
a. Construct an argument supported by evidence for how animals can be grouped according to their features.
b. Construct an argument supported by evidence for how plants can be grouped according to their features.
c. Ask questions and make observations to identify the similarities and differences of offspring to their parents and to other members of the same species.

S1P1. Obtain, evaluate, and communicate information to investigate light and sound.
a. Use observations to construct an explanation of how light is required to make objects visible.
b. Ask questions to identify and compare sources of light.
c. Plan and carry out an investigation of shadows by placing objects at various points from a source of light.
d. Construct an explanation supported by evidence that vibrating materials can make sound and that sound can make materials vibrate.
e. Design a signal that can serve as an emergency alert using light and/or sound to communicate over a distance.

S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals.
a. Develop models to identify the parts of a plant—root, stem, leaf, and flower.
b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).
c. Design a solution to ensure that a plant or animal has all of its needs met.

S2E1. Obtain, evaluate, and communicate information about stars having different sizes and brightness.
a. Ask questions to describe the physical attributes (size and brightness) of stars.
b. Construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is actually medium in size and brightness.

S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).
a. Plan and carry out an investigation to demonstrate how pushing and pulling on an object affects the motion of the object.
b. Design a device to change the speed or direction of an object.
c. Record and analyze data to decide if a design solution works as intended to change the speed or direction of an object with a force (a push or a pull).

Directed Study and Advanced Research Skills (ARS): K.1, 1.1, 2.1 Investigate/explore topic chosen by the teacher. K.2, 1.2 Select a question to guide research. K.3, 1.3 Predict answer(s) to the research question.. K.4, 1.4 Make observations to answer the research question. K.5, 1.5 Record data from observations. K.6, 1.6 Analyze data using visual organizers, books, reference materials, electronic media. K.7, 1.7, 2.8 Draw valid conclusions guided by the teacher. K.8, 1.8 Share results with peers. 2.2 Examine key questions posed by the teacher. 2.3 Utilize question to guide research. 2.4 Examine hypothesis or thesis statement developed by the teacher. 2.5 Implement a research methodology chosen by the teacher. 2.6 Implement timeline developed by the teacher. 2.7 Gather, organize and analyze data using visual organizers, books, reference materials. 2.9 Share results through a product(s) chosen by the teacher. 2.10 Understand evaluation by the teacher.
Advanced Communication Skills (ACS): K.2, 1.2, 2.2 Share information in front of class. K.3, 1.3 Compose written material/picture story. K.4, 1.4 Produce a product following guidelines established by the teacher. K.5, 1.5, 2.7 Demonstrate originality. 2.3 Compose written material with a beginning, middle, and end. 2.4 Proofread written material. 2.5 Adhere to assigned criteria. 2.6 Use main ideas to create a product.

Essential Question(s)
What should students know when lesson is completed?

Essential Question: What impact do American symbols, songs, holidays, geography, economics, and government have on us today?

Question of the Day: What songs and symbols are used to represent America and why?

Teacher Lesson Preparation
Materials: one American Songs & Symbols Scavenger Hunt sheet per student, computers with Internet access, one set of Science Centers Directions sheets per student, pencils, crayons, markers, colored pencils, a variety of rock and soil samples, one lamp with an incandescent bulb and one lamp with a fluorescent bulb that produce equivalent lumens, 2 thermometers, stopwatch, ruler, large bowl, sharp knife, cutting board, broccoli, lettuce, celery, tomatoes, sunflower seeds, carrots, salad dressing, one American Songs & Symbols Think-Tac-Toe sheet per student, one American Songs & Symbols Checklist per student, ATB Investigators Handbook

Activating Strategy (for example: Hook/Mini-Lesson/Warm-Up/Connection to Prior Learning)
1. During this lesson, students will learn about American songs and symbols and will tie these to four scientific concepts.
2. Break the students up into small groups and have them go on-line to complete the American Songs & Symbols Scavenger Hunt. Give them a time limit of 45-60 minutes in which to complete it.
3. Students can also read books from the library “America the Beautiful”

Instructional Sequence and Activities including use of technology
1. Students will meet with other peers to review and compare answers to the warm up
2. Teacher will introduce vocabulary to students
3. Teacher will have science centers prepared from explorations (See Lesson 3 Handouts)
4. Break the class up into four groups. Set up the four science experiment centers. See attached directions and materials list for each center. Go over the directions for each center. Allow roughly 20 minutes at each center, and make sure that each group rotates to all four centers.
5. When the students are done, go over their hypotheses, observations, and conclusions as a class.
6. Pass out the American Songs & Symbols Think-Tac-Toe sheets to the students. Have them work individually to complete three projects of their choice in a row. Grade with checklist.
7. Have students complete the Lesson Three ATB Investigators Handbook page.
Assessment Strategies

The Students Will Know:
1. America consists of a variety of geographical features, which can be represented on a map.
2. Different areas of the country experience different types of weather and climate during the four seasons.
3. Americans celebrate national holidays in order to honor people or events from our country’s past.
4. Many symbols and songs hold special meanings for America.
5. American scientists have solved many problems for society over the years
6. The characters in American folktales portray positive character traits.
7. Animals and symbols can be found on American money, and this money can be used to purchase goods and services.
8. In America, everyone is expected to follow certain laws.

The Students Will Be Able to Do:
1. Locate places and geographical features on a map. 2. Conduct research using a variety of resources in order to locate information. 3. Present products to an audience using effective communication skills. 4. Compare and contrast two national holidays.
5. Use computer software to create products. 6. Use the scientific method to make predictions, observations, and conclusions about light, the basic needs of plants and animals, stars, and rocks and soils. 7. Make decisions about important American scientists. 8. Write an original folktale after brainstorming ideas on a diagram. 9. Creatively answer open ended questions. 10. Compare and contrast two native American animals.

Assessments:
- Rubrics
- Checklists
- Peer PMI
- Surveys

Performance:
Students work in small groups to create an original play in order to inform the audience about each of the topics learned during the unit (geography, national holidays, American songs and symbols, famous people, American folktales, economics, government, and Science concepts) after completing the Brainstorming Sheet.

Differentiation

Scaffolds/Interventions/Extensions/Enrichment

Brain Pop Jr. Lesson Extensions

Lesson can be taught as an Encounter Lesson (Example: “Abraham Lincoln” on page 46 of Creativity by Carolyn Coil)
If lesson is taught as an Encounter Lesson, teacher has the option to use open ended questions and differentiation extender activities

Materials/Links/Text References/Resources

http://www.kidport.com/RefLib/UsaHistory/AmericanIcons/AmericanIconIndex.htm
https://www.visitthecapitol.gov/about-capitol
http://www.kidsastronomy.com/
https://jr.brainpop.com/socialstudies/government/branchesofgovernment/
https://jr.brainpop.com/science/plants/partsofaplant/

2nd Grade Lessons
Unit: Architecture
Lesson Name: Lesson 1 What is an architect?
Grade: 2
TAG Strategy in this lesson: Compare/Contrast, Jigsaw Planet or Carousel Brainstorming

STANDARDS/ELEMENTS: CCGPS, GPS/GSE (where applicable) and TAG Standards
SS2CG2: Identify the following elected officials of the executive branch and where they work: a. President and Washington, D.C. - White House. b. Governor and Atlanta, GA - State Capitol Building
TAG Standards:
ACS: The student uses written, spoken, and technological media to convey new learning and challenge existing ideas. The student produces written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language. The student maintains a journal or log for self-reflection and/or self-evaluation.
HOT: The student conducts comparisons using criteria. The student draws conclusions based upon relevant information while discarding relevant information.

ENDURING UNDERSTANDING:
Architects are people who work with engineers and provide a service. They are trained to plan and design buildings, and oversee their construction. Architecture is the art of directing and designing the structure of buildings. Architects have specific skills and characteristics that help make them successful.

ESSENTIAL QUESTION(s)
How are animals and architects alike? How are they different?

Students will:

Know: architects design buildings, and they need certain skills/characteristics to be successful. Architects work closely with engineers and provide a service
Understand: that people build homes for protection and shelter

Do: Compare animals and their homes to architects and their designs

TEACHER LESSON PREPARATION
Get devices for students to use for Jigsaw Planet and Discovery Ed. Video, or prepare Carousel Brainstorming posters
Copy Compare/Contrast info sheets and graphic organizer

ACTIVATING STRATEGY
Contains one of these in a well-developed, clearly explained format: related pre-assessment, motivating introductory activity (hook or mini-lesson), opportunity for students to link content to prior knowledge and interests, an advanced organizer, and/or clearly stated learning expectations using related focusing and guiding questions

See/Think/Wonder Hook:
Jigsaw Planet Hook: Students will complete the following electronic puzzle.
http://www.jigsawplanet.com/?rc=play&pid=2a516e6f9563

   Ask students when they solve it, what all of the pictures have in common. (They are all structures built to serve a purpose.) Some are built by animals and some are designed and built by architects. Be sure to point out the White House and the Georgia State Capitol Bldg.

   Our new unit, Architecture, is about buildings and how architects design them to make sure they are both safe and nice to look at. Ask them if they think animals are architects. Why or why not?

Carousel Questions:
1. If you could live in any kind of house, what would it be and why?
2. How is an anthill like the human body?
3. Is architecture art? Why or why not?
4. Have a picture of an anthill, beehive (or bird nest), and beaver dam. Which home is built the best and why?
5. What would your dream home have in it?

   Hold a discussion then about what they already know about architecture. Web this information for everyone to see.

Architect: a person trained to plan and design buildings, and oversee their construction.

Architecture: The art of directing and designing the structure of buildings

Pre-Assess:
Have the students pre-assess their learning.
   • Ask students to rank themselves from 0-10. 0=no knowledge of buildings/architecture 10=Expert on architecture.
   • Students should write the number on a Post-It note and then put it on a class number line.
   • Have students explain on the Post-It why they gave themselves the number that they did. (Model for them. I always give myself a low number.) Tell the students that it
doesn’t matter where they are right now on the number line. What’s important is that throughout the unit, they continue to move themselves up on it. So for example, if you are a three today, hopefully in a couple of weeks, you will re-rank yourself as a 4 or 5. And, by the end of the unit, you’ll be much higher!

Instructional Sequence and Activities including use of technology

ANIMAL EXPERTS
Discuss what types of homes animals build for themselves and their families
YouTube video about animals that build their homes vs. those that find their homes here:
https://www.youtube.com/watch?v=9bKQeoNrciQ
https://www.youtube.com/watch?v=o5FwvUD2e94

Article about animal squatters:
http://scribol.com/environment/animals-environment/animal-squatters-creatures-which-steal-their-shelters/

How birds build a nest:
https://www.youtube.com/watch?v=qbWM1QAVGzs
https://www.youtube.com/watch?v=n694LFHoET8

Student Activity:
Students will watch videos of how birds create their nests. Students will then go outside and collect materials to then create a nest on with a partner. Once finished have students museum walk to check out each other’s work.

Students can take a picture of their nest and insert it into OneNote

ARCHITECT EXPERTS
S’s will watch “Architect” video 10 min 46 sec. from Discovery Education (michelleaga: angel)
https://app.discoveryeducation.com/learn/videos/bc79ba57-a2c9-41b1-89bc-6ed0a064e200?hasLocalHost=false

Students will use graph paper (on OneNote or paper) to sketch out our classroom. They will post their drawings for the class to walk around and discuss.

Students will then create a Venn Diagram comparing animals to architects. They can do this with their partners or individually.

Hold a discussion about the similarities and differences between animals and architects.
- What is the biggest difference?
- What is the biggest similarity?
- What was surprising to you?
- Are animals architects?
- What questions do you still have about animal homes?
- What questions do you still have about architects?
Brainstorm with the kids’ characteristics that they think architects need to be really good at their jobs. They should learn that they need to do well in math, be a good reader, work well with other people, be creative, be organized, be a good planner, be flexible, be a good listener, be a good designer, know how to use computers, and be a problem solver.

**Student Activity:**
Tell the students that today they are going to become architects! You will create a list of items describing what must be part of the tree house.
- Design a tree-house
- 10 feet off the ground
- At least 3 contact points (poles in ground; three trees)
- Doorway
- Windows
- How to get up
- How to get down
- Inside design

Students will discuss list of items with a partner to determine if they are acceptable and realistic.

Extension activity: Have the students create a detailed architectural drawing of their bedroom. Use graph paper and explain that blueprints are an overhead view of a room/building. Tell them that often architects include pictures of their work in a portfolio. They can submit their letter and classroom “blueprint” to you at the end of the day.

S’s will use a checklist to evaluate work then turn work and checklist into you for evaluation.

At the start of the next class explain that they got the job and are now ready for some on the job architecture training!

**Ticket Out the Door Options:**
Lots of time: Students answer “Architecture Question of the Day #1” and turn it in before they leave.
Little time: Pose the following on a sheet of poster paper: “The answer is architect. What is the question?” Have students write their thoughts on a Post It note and stick it on the poster as they walk out the door.

**Assessment Strategies**
Students answer TOTD “Architecture Question of the Day #1” and turn it in before they leave. Or, they do the less time consuming TOTD. Letters, graphic organizers, writing checklists Venn Diagram, and self-ratings could be used to evaluate their understanding of architects and their ability to self-evaluate.
Differentiation: Options given throughout plan.
S’s can choose their topic (animal or architect)
S’s can use Microsoft Word or write out their letters (student choice) or use Tellagami
S’s can use Jigsaw Planet or Carousel Brainstorming (Hook)

Materials/Links/Text References/Resources - Thorough
https://app.discoveryeducation.com/learn/videos/bc79ba57-a2c9-41b1-89bc-6ed0a064e200
https://newsela.com/articles/dream-job-architect/id/22513/
jigsawplanet.com
52 min. animal home documentary https://www.youtube.com/watch?v=2YtakFRZHk

Week of 3/23/20

Unit: Architecture
Lesson Name: Lesson 2
Grade: 2
TAG Strategy in this lesson: Modified Design Thinking

STANDARDS/ELEMENTS: CCGPS, GPS/GSE (where applicable) and TAG Standards

S2P1: Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects.
   a. Ask questions to describe and classify different objects according to their physical properties.
      (Physical properties could include color, mass, length, texture, hardness, strength, absorbency, and flexibility.)
   b. Construct an explanation for how structures made from small pieces can be disassembled and then rearranged to make new and different structures.

TAG Standards:
ACS: The student uses written, spoken, and technological media to convey new learning and challenge existing ideas.
The student produces written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
The student maintains a journal or log for self-reflection and/or self-evaluation.
HOT: The student conducts comparisons using criteria.
The student draws conclusions based upon relevant information while discarding relevant information.
ENDURING UNDERSTANDING:

Architects are people who work with engineers and provide a service. They are trained to plan and design buildings, and oversee their construction. Architecture is the art of directing and designing the structure of buildings. Architects have specific skills and characteristics that help make them successful. Shapes can be geometric or organic. Architects use both geometric and organic shapes when designing buildings so that they are safe and look nice. Architects use the engineering process or design thinking process.

ESSENTIAL QUESTION(s)  How are shapes used in architecture?

TEACHER LESSON PREPARATION

ACTIVATING STRATEGY
Hook:
Ask students to answer the following analogy: How is an architect like a bee? Discuss.

Last week you wrote letters to me telling me why you would make a great architect. Today you are going to show me those skills! We’re going to all become architects!

Shapes in Architecture: Look at architectural drawings and pictures of buildings. Ask students what shapes they see. Ask the students how they could sort the shapes.

Tell the students that today they are going to learn to sort and use shapes the way architects do. Watch the following short clip about geometric and organic shapes.

http://fristcenter.org/misc/shapes-in-architecture

Activity: Afterwards, take a tour around the building and take pictures with laptops of geometric and organic shapes. When you get back to the room, share/sort the shapes you found.

Instructional Sequence and Activities including use of technology

Design Challenge #1
Build Shape Sculptures: (From The Frist Center for The Visual Arts) You will see an illustration explaining this activity in the video clip.

Geometric shapes are perfect and are made of exact measurements, like squares, triangles, and circles. Organic shapes are irregular, like the shapes we find in nature: leaves, seashells, fruits, and vegetables. All types of geometric and organic shapes surround you every day. Sometimes architects mix these types of shapes together.

Step 1. Find some cardboard that is thin enough for the kids to cut through, yet stiff.
Step 2. Cut out some organic shapes from the cardboard. (Larger shapes work better.)
Step 3 Cut out some geometric shapes from the cardboard. (Larger shapes work better.)
Step 4 Decorate the shapes with markers.
Step 5 Cut two, three, or four slots into each of the shapes.
Step 6 Assemble the sculpture by sliding the slots together. You’ve created your first Shape Sculpture!
Congratulations Architects! If you have time, you could give the sculptures names/titles.

Take a Museum Walk and look at the sculptures. Do you see any similarities or differences? What would the title for your sculpture be? Where could we display these? (Display in room, media center, or if you use Seesaw, take pics of them and add them to their e-journals.)

**Design Challenge #2**
First, review the engineering process with your students.
5 min. Video you can use: [http://nicertube.com/k97cio](http://nicertube.com/k97cio)

Next, Students will test geometric shapes to see which is the strongest. (square/rectangle/triangle)

You will need drinking straws and pipe cleaners.
Have students predict which shape is the most stable. (a square, a rectangle, or a triangle)
They can draw the shapes in their journals and write their predictions there.
Partner students up:
With your partner, build a triangle, a square, and a rectangle from the straws and pipe cleaners. To connect two straws, cut a pipe cleaner in half or thirds. Slip a piece of pipe cleaner into the end of a straw. Then slip a straw onto the other end of the pipe cleaner. Make sure the pipe cleaner is long enough, so it will pop out. Bend the pipe cleaner to make a corner. Compare the stability of the shapes. Stand each shape up and gently press down on the corners. What happens? How much does each one bend and twist? How hard can you press down on each shape before it collapses? Students can note observations in their journals.

Ask: Which shape was most stable? What do you think made it the most stable? How might this shape be used in large structures? (The triangle is the strongest shape.)

Now that you know more about shapes, you will try and build the most stable structure you can using either.
straws and pipe cleaners
or
spaghetti noodles and marshmallows
(Depending on what supplies you have, both work well.) Or, you could have some groups use straws and the other groups use spaghetti noodles and then compare them!

Have INDIVIDUAL students draw what the structure might look like. Then, in pairs, or groups of three, SHARE their drawings with each other. Together as a team, decide which model you will try and build first. Build the tower. See if it can hold a small stuffed animal, or other object, on the top. If not, re-design your tower on paper.

Rebuild it. Repeat as much as time allows.

See which groups’ tower is the tallest and strongest. What shapes do you see in the designs? Do you see lots of triangles? How did they reinforce the squares and rectangles?

Assessment Strategies
Students can answer the following questions in their journals: How do architects use the engineering process? What shapes can I find in architecture? Which shapes are better for building?

Variation: Kids can use toothpicks and gumdrops instead of spaghetti and marshmallows.

Students can also reevaluate themselves on Post-It’s like they did in the first lesson. Now that they’ve learned about the shapes architects use, what number (1-10) would they give themselves now? They should write their new number of a different color Post It and then put it up on the number line. They can remove their Post-It from the first day.

Differentiation: Options given throughout plan. If possible, students can choose different materials to use. Students can build a tower to hold a heavier object if they have already built one that will hold a stuffed animal.

Materials/Links/Text References/Resources

http://fristcenter.org/misc/shapes-in-architecture

5 min. video about engineering process:

http://nicertube.com/
Ancient Greek Architecture Lesson 3

TAG Strategies in this lesson: Carousel B/S, Wagon Wheel, SCAMPER, Inquiry

UNIT NAME- Architecture

LESSON NAME Time Needed (Hours/Days)
Influence of Greek Architecture in the USA 1-2 hours

Grade Subject Course
2 TAG

STANDARDS/ELEMENTS: CCGPS, GPS/GSE (where applicable) and TAG Standards
S2P1: Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects.

a. Ask questions to describe and classify different objects according to their physical properties.
(Physical properties could include color, mass, length, texture, hardness, strength, absorbency, and flexibility.)

b. Construct an explanation for how structures made from small pieces can be disassembled and then rearranged to make new and different structures.

TAG Standards:
ADVANCED COMMUNICATION SKILLS: The student uses written, spoken, and technological media to convey new learning and challenge existing ideas. The student produces written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language. The student maintains a journal or log for self-reflection and/or self-evaluation.
HIGHER ORDER AND CRITICAL THINKING: The student responds to questions with supporting information that reflects in-depth knowledge of a topic. The student extrapolates verbal-linguistic (e.g., analogies) and visual-spatial patterns (e.g., tessellations) to determine relationships. The student conducts comparisons using criteria.

ENDURING UNDERSTANDING:
The Ancient Greeks developed a unique style of architecture. Greek architecture is known for tall columns, intricate detail and balance. It is a style that is still copied today in government buildings and major monuments throughout the world. The Greeks built all sorts of buildings, many whose parts still stand.
Know:
Greece is located on the continent of Europe.
Ancient Greek architects created building features that were different from those of past civilizations.
Greek architecture influences many U.S. government buildings.
Columns were often used in Ancient Greek architecture.

Understand:
Ancient Greek architecture influenced architectural designs and practices in other civilizations.
Columns help to create sturdy, strong buildings.

Do
Participate in creative thinking via SCAMPER
Use inquiry skills to explore and experiment with column strength.
Redesign “something” using components of Greek architecture.

ESSENTIAL QUESTION(s)
How did Ancient Greek architects develop their own unique features to include in building design? How has Ancient Greek architecture influenced buildings in our time?

TEACHER LESSON PREPARATION
Gather materials: chart paper with carousel b/s questions, cupcake photo for carousel b/s, laptops, iPads or other devices, Greek Architecture informational sheet, access to linked websites, pencil, compressed conflict page, 3-2-1 Graphic Organizer (GO)

ACTIVATING STRATEGY
HOOK: Carousel Brainstorm:
Prior to carousel brainstorm review the rules of brainstorming:
- Quantity counts
- Withhold judgement (all ideas are good ideas)
- Piggyback on ideas
- Wild ideas welcome

Students will carousel in small groups recording responses to the following: (question sheets in resources)
1.) If creativity were a machine what would it look like?
2.) If you were a cupcake what kind would you be and why? (remember to relate it to personality traits)
3.) Name/list things that are both hot and cold.
4.) Architect is to building as ____________________ is to ____________________.
5.) Photo analysis: What do you notice and wonder about these buildings?
After full carousel round s. will participate in a museum walk, quietly reading and analyzing responses. Tell s. that their job in the museum walk is to find the responses that they felt were the most thought provoking. Whole group share thought provoking responses.

**DIFFERENTIATION:** Based on your population, Teacher may want to rotate around with small identified group or whole group for Museum Walk and discussion

LESSON INTENT: The intention of this lesson is that students understand that Ancient Greek architecture greatly influenced building design, especially government buildings, in the United States. Students will learn that there are certain architectural structures used by Greek architects, specifically columns, that helped improve the strength of buildings as well as their aesthetics.

PRE-ASSESSMENT-5 Fingers-Prior to examining content students will self-evaluate their knowledge about Greek Architecture. S. will rank themselves 1 (novice)-5 (expert) and use a show of fingers to share.

**DIFFERENTIATION:** Depending on class population, Teacher may choose for students to do individual KWL for Pre-Assessment.

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**Instructional Sequence and Activities including use of technology:**

1. **Examine Content:**
   - Small Groups: Students will rotate through the following stations to glean information about Greek architecture.
   - Teacher will develop 3 investigation stations using the resources provided (websites, videos, photos, informational sheet) for students to rotate through to glean information about Greek architecture.
   - **Use resources provided below.**
     - https://safari.fultonschools.org/?p=43249d08-26bd-11e7-afdf-246e96145950
     - http://www.ancientgreece.co.uk/acropolis/challenge/cha_set.html build your own temple
     - http://viewpure.com/eVfszRzWttk?start=0&end=0 3D video of Greek building
     - http://viewpure.com/efE9GeNo2lA?start=0&end=0 Video of Greek building
     - http://www.cmhpf.org/kids/dictionary/ClassicalOrders.html 3 types of Greek columns research
     - http://greece.mrdonn.org/columns.html Greek Columns
     - Greece

   Ancient Greek Architecture-Informational Reading resource provided

2. For the first rotation s. will record 3-new facts learned 2-descriptive words that connect to the learning 1-picture to use as a mental memo to illustrate what Greek architecture means to you.
DIFFERENTIATION—Depending upon your class population you may need to examine content whole group.

DIFFERENTIATION: Depending upon your class population you may choose for students to use a dictation application to record for 3-2-1 you may use any iDevice or Dragon Dictation

DIFFERENTIATION: Teacher may work in small group supporting those previously determined as needing reading support.

3. Distribute and explain 3-2-1 GO whole groups and respond to questions.

4. Wagon Wheel—Following the examination of content from all rotations and exploration have s. get into 2 equal sized circles. One circle will face out the other in. Have s. facing each other share one fact each. Outside circle rotates to the right and second round of sharing takes place. Continue process as long as you see fit. Can also share words students chose.

5. SYNTHESIS: SCAMPER Activity
Students will work in teams of 3 to answer the SCAMPER questions both verbally and by using colorful drawings and illustrations. The teacher will ask each question and then allow enough time for teams to discuss, record answers and complete drawing.

(SCAMPER student hand-out resource provided)
S: What if we substituted the columns on the White House with something else? What would it look like?
C: What if the Egyptians combined columns with their pyramids? What would they look like?
A: What if we adapted our building to make it look like the Greeks designed it? What would CCES look like?
M: What if we modified the columns on the White House? What might it look like then? Change their shape, texture, color, position, size...or anything!
P: What if we put columns to a new use. What else could we use them for? Think of something totally unrelated to architecture! What might that look like?
E: What if we eliminated the columns on the Georgia State Capitol building? What might it look like without columns? Design a new Georgia State Capitol building so that there is nothing at all related to Greek architecture on it!
R: What if history was reversed and the ancient Greeks were living today? What might a street in Milton look like?

Each team will share their 7 pictures and explain their thinking while using the SCAMPER strategy.

When complete with SCAMPER, students should participate in the following inquiry/exploration:
Build a Strong Column Like the Greeks exploration: See attached resource adapted from PBS.org
Hand out and review GO for Inquiry
**Assessment Strategies**

Teacher and student will conference so they may work together to evaluate student via mini-rubric provided.

Students will also reevaluate themselves using 5 Fingers self-assessment.

**Differentiation**

Options given throughout plan.

**Materials/ Resources**

- Greek Architecture PPT
- Greek Architecture2 PPT
- Cupcake photo
- 3-2-1 Graphic Organizer
- Greek Architecture Information sheet
- Paper folded into 7 squares (one for each letter of the SCAMPER)
- Pencil, crayons, markers

***Check Inquiry/Exploration link to see required materials (can rice instead)

**GO for Inquiry**

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### 3rd Grade Lessons

Week of 3/16/20

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<td>Introduction and Cultural Relics</td>
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<td>Time Needed (Hours/Days)</td>
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<td>3</td>
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<tr>
<td><strong>Subject</strong></td>
<td>Social Studies</td>
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**Standards/Elements** CCGPS, GPS/GSE (where applicable) and TAG Standards

**Social Studies**

SS3H2 Describe European exploration in North America.

**Higher Order Critical Thinking Skills (HO/CTS) Elements**

2 Respond to questions with supporting information that reflects an in-depth knowledge of a topic.

3 Conduct comparisons using criteria.

4 Make and evaluate decisions using criteria.

11 Draw conclusions based upon relevant information while discarding irrelevant information.

12 Evaluate conclusions based upon relevance, depth, breadth, logic, and fairness.

14 Identify and illustrate basic principles and the foundational concepts that are central to understanding the essence of a field of study.
Recognize that the responsibility to examine and challenge existing ideas and theories is an ongoing process.

**Advanced Communication Skills:**
1. Use written, spoken, and technological media to convey new learning or challenge existing ideas.
2. Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
3. Create products and/or presentations that synthesize information from diverse sources and communicate expertise to a variety of authentic audiences.
4. Anticipate and address potential misunderstandings, biases, and expectations in communication with others.
5. Participate in small group discussions to argue persuasively or reinforce others’ good points.
6. Maintain a journal or log for self-reflection and/or self-evaluation.
7. Support and defend one’s own opinions while respecting the opinions of others.

**Essential Question(s)**

In what ways have the accomplishments of ancient civilizations contributed to our way of life today?

**Question of the Day:** How might we use higher order thinking skills and communication skills to share newly acquired knowledge about ancient civilizations with others?

**Vocabulary**

civilization, natural resources, climate, geographical features, accomplishment, defense

**Teacher Lesson Preparation**

Set up cultural relic stations.

**Activating Strategy**

See, Think, Wonder

Students will take the Unit Pre-Test and review the Unit Vocabulary.

**Intro to Unit: Ancient Civilization**

Ask students to think about the oldest building they know of, oldest historical event they know of, and the oldest famous person they know of. Students write their answer to each question on an index card (3 cards total). Then, work together as a class to place cards in order on a time line.

Pass out criteria organizer (fact finding). Students work in partners/independently to research basic information of ancient civilizations, Rome, Greece, India, Egypt, China.

**Instructional Sequence and Activities Including Use of Technology**

**Cultural Relic Stations:**

Set up stations around the room - Indian Rangoli designs, Roman Mosaics, Grecian Pottery/ Egyptian Wall Carvings, and Chinese Paper Cutting.

Read each of the information plaques to the students, then have them choose at which station they would like to start. Students work on their Ancient Civilization Cultural Relics and move throughout the activities.

**Assessment Strategies**

Reflection: Why is it important to study civilizations from the past?
Differentiation

Students will choose the station in which they start.
Art from the different cultures will be designed by the student.

Materials/Links/Text References/Resources

Cardboard
Clay
Paperclip
dyed rice
design templates
glue
construction paper
scissors

Links:

All:
http://ancienthistory.mrdonn.org/index.html
Egypt:
http://www.ancientegypt.co.uk/
http://www.historyforkids.org/learn/egypt/
China:
http://www.historyforkids.org/learn/china/
http://www.ancientchina.co.uk/menu.html
Greece:
http://www.ancientgreece.com/s/Main_Page/
http://www.historyforkids.org/learn/greeks/
http://www.ancient-greece.org/
Rome:
http://www.historyforkids.org/learn/romans/
http://www.crystalinks.com/rome.html
India:
http://www.historyforkids.org/learn/india/
http://www.ancientindia.co.uk/

Unit Name | Ancient Civilizations-Lesson 2
--- | ---
Lesson Name | Circle of Knowledge
Time Needed (Hours/Days) | 1 day
Grade | 3
Subject | Social Studies

Standards/Elements CCGPS, GPS/GSE (where applicable) and TAG Standards

Social Studies
SS3H2 Describe European exploration in North America.

Higher Order Critical Thinking Skills (HO/CTS) Elements
1. The student asks probing, insightful, and relevant questions.
2. The student responds to questions with supporting information that reflects in-depth knowledge of a topic.
7. The student examines an issue from more than one point of view.
8. The student separates one’s own point of view from that of others.
9. The student identifies stereotypes, biases, and prejudices in one’s own reasoning and that of others.
10. The student distinguishes between assumptions, inferences, and conclusions.
11. The student draws conclusions based upon relevant information while discarding irrelevant information.
14. The student identifies and illustrates basic principles and the foundational concepts that are central to understanding the essence of a field of study.
15. The student recognizes that the responsibility to examine and challenge existing ideas and theories is an ongoing process.

**Advanced Communication Skills:**
1. The student uses written, spoken, and technological media to convey new learning or challenge existing ideas.
2. The student produces written and/or oral work that is compiles, purposeful, and organized, includes relevant supporting examples and manipulation of language.
6. The student anticipates and addresses potential misunderstandings, biases, and expectations in communication with others.
7. The student responds to contributions of others, considering all available information.
8. The student participates in small group discussions to argue persuasively or reinforce others good points.
9. The student maintains a journal or log for self-reflection and/or self-evaluation.
10. The student supports and defends his/her own opinion while respecting the opinions of others.

**Essential Question(s)**
In what ways do the accomplishments of ancient civilizations contribute to our way of life today?

**Teacher Lesson Preparation**
Upload materials into OneNote

1. **Activating Strategy**
   See, Think, Wonder

2. **Hook: Sparking the Discussion**
   Ask the class if they ever disagree with their parents (bed times, dinner choices, tv watching, etc.) Discuss why they are disagreeing - they have different priorities. Tell them that today we are going to think about why the ancients did not advance their technology, even though they had the ability to do so. They had different priorities as well.

**Instructional Sequence and Activities Including Use of Technology**

1. **Circle of Knowledge:** Building background knowledge in order to participate in the discussion

2. Give each students a copy of *Why Did the Ancients Not Develop Machinery?, Theory One and Theory Two*. Read as a class. Have students highlight or underline any new facts they learn or find interesting. After they have had experiences with all handouts, have them write the response to the question: *Which do you think had the greatest negative impact on the culture? (Which is more to blame for the ancients relying on human power, rather than machines?)*

3. After students have written their own response, bring them together as a class and lead a discussion. Have the students justify their reasoning.

4. Then, students will work in small groups to answer the questions on the Questioning Cube.

**Assessment Strategies**

5. **Journal: 3, 2, 1 Response**
   Have students record their answers to the following:
3 Ways the ancients used technology
2 Ways the ancients could have improved their technology uses
1 Piece of technology we still use today that the ancients invented or used

Differentiation
Personalized Learning

Materials/Links/Text References/Resources
Materials Attached

Week of 3/23/20

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<td>Subject</td>
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<td>Strategy: Mystery</td>
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Standards/Elements CCGPS, GPS/GSE (where applicable) and TAG Standards

Social Studies
SS3H2 Describe European exploration in North America.

TAG Creative Thinking Creative Problem Solving Skills
1. The student questions accepted conventions, rules and existing principals to discover new knowledge.
2. The student suggests reasonable hypotheses for identified problems.
3. The student applies and adapts a variety of appropriate strategies to solve problems

TAG Higher Order Thinking Skills
11. The student draws conclusions based upon relevant information while discarding irrelevant information.
14. The student identifies and illustrates basic principles and the foundational concepts that are central to understanding the essence of a field of study.
15. The student recognizes that the responsibility to examine and challenge existing ideas and theories is an ongoing process.

TAG Advanced Communication Skills
1. The student uses written, spoken, and technological media to convey new learning or challenge existing ideas.
2. The student produces written and/or oral work that is compiles, purposeful, and organized, includes relevant supporting examples and manipulation of language.
6. The student anticipates and addresses potential misunderstandings, biases, and expectations in communication with others.
7. The student responds to contributions of others, considering all available information.
8. The student participates in small group discussions to argue persuasively or reinforce others good points.
9. The student maintains a journal or log for self-reflection and/or self-evaluation.

Enduring Understanding

The Student Should Be Able to Do:
- Draw conclusions based on relevant information
- Identify concepts central to a field of study
- Question accepted ideas to gain knowledge
- Create reasonable hypothesis for problems/situations
- Think in multiple perspectives/view points

**Essential Question(s)**

In what ways do the accomplishments of ancient civilizations contribute to our way of life today?

**Teacher Lesson Preparation**

Review lesson plan and all attached materials
Makes copies (paper) or place into OneNote

**Activating Strategy**

1. **See, Think Wonder**

**Instructional Sequence and Activities Including Use of Technology**

2. **Hook:** Watch intro to Nat Geo special, Quest for the Lost Maya (stop movie at 1:28). Then, pass out packets
   [http://www.pbs.org/program/quest-lost-maya/](http://www.pbs.org/program/quest-lost-maya/)

3. **Mystery Lesson: What Happened to the Lost Maya?**
   Working through the packet, students will investigate the disappearance of the Mayan people with evidence from scientific/archeologic explorations and evidence.

4. **PPT of graphs: Lesson – Maya Mystery (clue six)**
   Watch the last of the NOVA special (41:19-55:36)

5. **Circle of viewpoints: Clues to Collapse of Mayan Civilization**

**Assessment Strategies**

6. **Reflection:** Students will write a reflection of the Mayan Mystery in their journals.

**Differentiation**

Personalized Learning

**Materials/Text References/Resources**

- See, Think, Wonder
- **Quest for the Lost Maya** [http://www.pbs.org/program/quest-lost-maya/](http://www.pbs.org/program/quest-lost-maya/)
- **Clues to Collapse of Mayan Civilization**
- **Maya** [https://www.history.com/topics/maya](https://www.history.com/topics/maya)
- **Drought May Have Spelled End for Maya** [https://www.history.com/news/drought-may-have-spelled-end-for-maya](https://www.history.com/news/drought-may-have-spelled-end-for-maya)
- **Who Were the Maya?** [https://www.penn.museum/documents/publications/expedition/PDFs/54-1/who-were-the-maya.pdf](https://www.penn.museum/documents/publications/expedition/PDFs/54-1/who-were-the-maya.pdf)
## Week of 3/30/20

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<td>Grade</td>
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**Strategy:** Mystery

**Standards/Elements CCGPS, GPS/GSE (where applicable) and TAG Standards**

**Social Studies**

SS3H2 Describe European exploration in North America.

**Creative Problem Solving Skills (CPS):**

1. The student questions accepted practices, rules, and existing principles to discover new knowledge.

**Higher Order/Critical Thinking Skills (HOCTS):**

2. The student responds to questions with supporting information that reflects in-depth knowledge of a topic.

10. The student distinguishes between assumptions, inferences, and conclusions.

14. The student identifies and illustrates basic principles and the foundational concepts that are central to understanding the essence of a field of study.

15. The student recognizes that the responsibility to examine and challenge existing ideas and theories is an ongoing process.

**Advanced Communication Skills (ACS):**

1. The student uses a variety of print and non-print resources to investigate a topic of interest.

2. The student formulates original and appropriate questions to test the limits of an existing body of knowledge.

**Enduring Understanding**

*The Student Should Be Able to Do:*

- Question existing rules and practices
- Test the limits of a body of knowledge
- Use print resources to investigate a topic
- Distinguish between assumptions, inferences, and conclusions

**Essential Question(s)**

In what ways have practices and rituals from ancient civilizations been altered, misinterpreted, or romanticized by people in our world today?

**Teacher Lesson Preparation**

Review lesson plan and all attached materials
Makes copies (paper) or place into OneNote
Get bowls for each table
Gather Plaster gauze
10” dolls

**Activating Strategy**

1. See, Think Wonder
Instructional Sequence and Activities Including Use of Technology

2. **Mummify Dolls**
3. **Fact Finding: Mummies**
   - Students use criteria organizer to brainstorm what they:
     1. Know about mummies
     2. Known misconceptions about mummies
     3. Known locations on a map where mummies can be found
   - Record an “A” next to any statement they write which they know is an assumption (just a guess, something they heard somewhere from someone else, but never confirmed to be true), an “I” next to any statement they write which is an inference (something they are using prior knowledge to infer, but cannot 100% be sure is true) and a “C” next to any statement they make that is a conclusion (conclusive evidence can be found/is known by the student, they are POSITIVE this answer is correct).

   Read article together: How Mummies Work. While reading record (+) by any facts they read that match their initial ideas about mummies (-) about facts that disagree with/refute or challenge their initial ideas about mummies (!) by anything they read that is exciting and (?) by anything they read that is confusing to them, or they’d like to research later.

   After reading article – students play game on computers with a partner/triplet (won’t work with iPads). Try to remember all of the steps to mummify their Egyptian leader
   *Students can also complete “Explore the Pyramids” from http://www.pbs.org/wgbh/nova/pyramid/explore/*

Wrap Up Intro: Shapely Debriefing – share answers as a class. Students respond to three prompts:
   - When thinking about mummies here are…
     • 3 ideas that square with my way of thinking
     • 3 important points to remember
     • 3 questions still going around in my head

**Assessment Strategies**

4. **Shapely Debriefing**

**Differentiation**

Personalized Learning

**Materials/Text References/Resources**

- **See, Think, Wonder**
  - [http://oi-archive.uchicago.edu/OI/MUS/ED/mummy.html](http://oi-archive.uchicago.edu/OI/MUS/ED/mummy.html)

**4th Grade Lessons**

Week of 3/16/20

<p>| Unit Name   | Space Exploration |</p>
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**Strategy: Six Hats Thinking**

**Standards:**

**Science GSE**
S4E1 d. Evaluate strengths and limitations of models of our solar system in describing relative size, order, appearance and composition of planets and the sun

**TAG Higher Order Thinking Skills**
HOTS 1 Asks probing, insightful, and relevant questions.
HOTS 2 Responds to questions with supporting information that reflects in-depth knowledge of a topic
HOTS 7 Examines an issue from more than one point of view.
HOTS 8 Separates one’s own point of view from that of others.
HOTS 11 Draws conclusions based upon relevant information while discarding irrelevant information.
HOTS 15 Recognizes that the responsibility to examine and challenge existing ideas and theories is an ongoing process.

**TAG Advanced Communication Skills**
ACS 1 Use written, spoken, and technological media to convey new learning or challenge existing ideas.
ACS 2 Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
ACS 7 Respond to contributions of others, considering all available information.
ACS 8 Participate in small group discussions to argue persuasively or reinforce others’ good points.
ACS 10 Support and defend one’s own opinions while respecting the opinions of others.

**Essential Question(s)**
Why is it important to understand and explore space?

**Questions of the Day**
- Is it ethical to use animals (before humans) to test new products?
- How would the world be different today if President Kennedy had not had a vision of space exploration?

**Teacher Lesson Preparation**
Read through the entire lesson plan
Make paper or digital copies of handouts for students
Verify that all Internet links work

**Materials/Text References/Resources**
- A Wrinkle in Time by Madeleine L’Engle - fiction chapter book for teacher-directed reading (optional)
- Rocket Boys by Homer Hickam, non-fiction chapter book for teacher-directed reading (optional)
- [http://www.creationresearches.com/images/earth_img06.jpg](http://www.creationresearches.com/images/earth_img06.jpg)
- [https://www.nasa.gov/audience/forstudents/9-12/features/F_Animals_in_Space_9-12.html](https://www.nasa.gov/audience/forstudents/9-12/features/F_Animals_in_Space_9-12.html)
- Mystery Photo of Animals
- “Monkeys, Bananas and NASA”
- “When the U.S. Sent Monkeys, the Russians Sent Dogs”
- Six Thinking Hats: Animals in Space graphic organizer
Activating Strategy

Examine the scale of the solar system. Have students view (on individual devices, shared w/partner devices, or big screen) “Powers of Ten” http://micro.magnet.fsu.edu/primer/flash/powersof10/index.html using the “manual” option. Advance through the photos with a click. When played in “auto” mood it moves very quickly. After students have viewed once or twice in manual mode, auto mode would be appropriate. In “Powers of Ten”, students start with a view 10 million lights years beyond the Milky Way Galaxy and travel to inside an atom on a leaf in Florida. Another (but longer at 7 minutes) idea of how vast the expanse of space is can be viewed at http://www.sciencealert.com/this-awesome-video-shows-the-scale-of-the-universe-in-the-best-way-possible

Show students the scale model of the planet in our solar system that can be found at http://www.creationresearches.com/images/earth_img06.jpg

Ask, “What do you see?”
Ask, “What do you think?”
Ask, “What do you wonder?”
(Be patient and allow time for the students to generate answers. Do not tell them what YOU see, think, and wonder.)

In this TAG unit, students will be learning about space exploration. 3-2-1, Blast-Off!!

The Lesson: Part One

1. Show students the mystery photo of animals, and ask, “What do these animals have in common?”
2. Students can ask yes/no questions until they reach the conclusion that all of these animals have flown in space.
3. Divide the class into two groups, Group A and Group B.
4. Group A will independently read the article, “Monkeys, Bananas and NASA”
5. Group B will read, with the teacher, the article, “When the US Sent Monkeys, the Soviets Used Dogs”
   As they are reading, they will highlight information that they feel is important to remember.
6. After both groups have finished the task, switch it up.
7. Group B will now independently read the article, “Monkeys, Bananas, and NASA”
8. Group A will now read, with the teacher, the article, “When the US Sent Monkeys, the Soviets Used Dogs”
9. Organize students as partners and give each partnership the graphic organizer for “Six Thinking Hats: Animals in Space”. Suggestion: If you are making paper copies, enlarge them to allow for writing. You can also share the document with students electronically for them to complete.
10. Have all students come together in a circle to join in a discussion of the use of animals in space.
    • What was the most surprising or shocking fact for you?
    • Share the feelings that you had as you learned about animals in space.
    • What is something related to animals in space that you agree with?
    • Share the alternatives to using animals in space that you and your partner came up with?
    11. Ask the students, “Do you think the use of animals in space is something we need to worry about now that we have manned missions?”
    12. What is the current status of animals in space?
       Share with the students highlights from the article, “Russians and Monkeys to Mars”
    • Synthesis Activity: You are a member of NASA’s Institutional Animal Care and Use Committee (IACUC). The IACUC is responsible for making sure that all animal research conduct in spaceflight is done appropriately. Individually, create a minimum of five guidelines for the use of animals in spaceflight research.
The Lesson: Part Two

Introduction of Manned Space Flight.

Show the PPT, “Lesson One PPT Space Exploration” to set the stage for Kennedy’s famous “We go to the Moon” speech. (The direct link to the PPT is: https://docs.google.com/presentation/d/1KnfEZcsdauLSYNmr18OF9--Rk8kU5cPbJaCCUSr5m8/edit?usp=sharing) On most slides, there is a MOVIE link to the event detailed on the slide. Have student copies of JFK’s speech (excerpts) available for students to read.

Assessment Strategies

Synthesis Activity: Animals in Space

Ticket-Out-The-Door: How would the world be different today if President Kennedy had not had a vision of space exploration?

Differentiation

For students who are interested in further exploring scale models of the solar system, direct them to http://joshworth.com/dev/pixelspace/pixelspace_solarsystem.html. Encourage them to create their own unique scale model of the solar system.

For students who are interested in further exploring the role of animals in space, direct them to https://www.nasa.gov/audience/forstudents/9-12/features/F_Animals_in_Space_9-12.html

For students who are interested in the history of the American space program: www.nasa.gov/history

For students who are interested in all of the inventions we now use because they were first invented for the space program: https://spinoff.nasa.gov/

For students who are passionate about animal rights, encourage them to find out other ways in which animal testing occurs and what people are doing to protect animals.

Week of 3/23/20

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Strategy: Inquiry

Standards/Elements CCGPS, GPS/GSE (where applicable) and TAG Standards

- Social Studies GSE
  SS4E1 Use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events.
a. Describe opportunity cost and its relationship to decision-making across time (e.g., decisions to settle in the west).

**TAG Creative Thinking Creative Problem Solving Skills**

- **CPS 3** Incorporate brainstorming and other idea-generating techniques (synectics, SCAMPER, etc.) to solve problems or create new products.
- **CPS 4** Demonstrate skills in fluency and flexibility to solve problems or create new products.

**TAG Higher Order Thinking Skills**

- **HOTS 2** Responds to questions with supporting information that reflects in-depth knowledge of a topic.

**TAG Advanced Research Skills**

- **ARS 1** Uses a variety of print and non-print resources to investigate a topic of interest.
- **ARS 6** Develops and uses systematic procedures for recording and organizing information.

**TAG Advanced Communication Skills**

- **ACS 2** Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
- **ACS 4** Use a variety of multi-media and innovative technology to create illustrations, models, charts, tables, and graphs as tools for communication.
- **ACS 9** Maintain a journal or log for self-reflection and/or self-evaluation.

### Enduring Understanding

**The Student Should Know:**
The events that led to World War I.

**The Student Should Understand:**
How the Zimmerman telegram had an impact in World War I.

**The Student Should Be Able to Do:**
Create a poem about conflict.

### Essential Question(s)

How would you choose someone to explore a place no human had ever been before?

**Question of the Day**

Is space travel a worthwhile government investment? Why or why not?

What traits/accomplishments are most important (the “right stuff”) for being a successful astronaut?

### Teacher Lesson Preparation

- Review lesson plan and all attached materials
- Makes copies (paper) or create digital links for students

### Activating Strategy

**See, Think Wonder:** Show students the picture of the two scuba divers. Students will write about what they see, think, and wonder.
Ask a series of yes/no questions, to guide the kids to determine what their job is. Students will use the Inquiry strategy in which they generate hypotheses and yes/no questions to support or refute. (See attached graphic organizer.)

Answer: They are divers who support astronauts in training in the Neutral Buoyancy Lab [pool] at Johnson Space Center in Houston, TX. After students have discovered the answer, show them the large picture of the NBL, along with a brief description to share with them.

Instructional Sequence and Activities Including Use of Technology

Carousel Brainstorming: Students will complete a carousel brainstorming activity. Divide students into six groups. Each group will stand by one of the questions listed below and respond, individually, in writing to the questions. (Put questions on large sheets of paper that can be posted after the activity is complete). After students have had a chance to respond, they will rotate to the next question. After students have had a chance to respond to all questions, let them go through the rotation again, this time reading the responses that have been added since they were there. The questions are attached to this lesson.

- Imagine one of your parents has just been selected as an astronaut for a mission to Mars. How do you feel about it?
- What qualifications do you think an astronaut needs?
- The word “astronaut” is made up of “astro” (meaning space) and “naut” (meaning sailor.) Why is this name appropriate for the job that they do? Can you think of another name that might be appropriate?
- Why do astronauts need to be both physically and mentally strong?
- Have you ever been on a team that worked well together? Why did the team work well together? Have you ever been on a team that did not work well together? Why did your team struggle to work well together?
- What do you think would be the best thing about being an astronaut? What would be the worst?

The Right Stuff (mini-research)

Students will choose an actual astronaut and look for things they have done/accomplished that prove they had / have the “right stuff” as well as things they have done/accomplished that the student aspires to. https://www.nasa.gov/astronauts Students will also explain the “opportunity cost” to those who chose to pursue the path of astronaut. (Graphic organizer is attached.)

Students will choose an astronaut template and draw their face. Option: Take a photo of the students’ faces for them to put on their astronaut template. Add color as desired. Around the astronaut, the students will write down the traits/accomplishments, etc. that they feel are the most important to be an astronaut. Create a Museum Walk so that all can see the work of their classmates.

Extension Activity:

In this activity, students are asked to select three model citizens who will make up the first community on Mars. They should draw on the conclusions they made about what the “right stuff” is as well as reflect on individuals of the past (not living today) and characteristics that would be necessary in order to be one of the first settlers on Mars.
Students will create visuals of the first Martian citizens carrying a suitcase. On the suitcase, they should list the most important traits/characteristics that each person has. After they have completed the visuals, students will explain and then display to the class. The students will each have the chance to vote for six people. Tally the votes and then announce the first crew to Mars.

**How is space exploration funded?**

- Do you know how NASA gets funding? (It is funded by the US government.
- In the mid-1960’s, about the time when President Kennedy was promoting his plan to go to the moon, NASA received about 4% of the national budget.
- As we have the International Space Station now and are preparing to go to the moon, what percentage of the budget do you think is dedicated to NASA? (.5% - less than one percent).
- How much do you think that .5% is in dollars? (19.1 billion)
- Do you think that is a worthwhile investment?
- Show students “NASA Gangnam Style” [https://www.youtube.com/watch?v=2Sar5WT76kE](https://www.youtube.com/watch?v=2Sar5WT76kE) to get an idea of all the things that go on at NASA’s Johnson Space Center.
- Do you wonder what the other 99.5% is going to? (Show students the pie chart from 2015, attached)
- Ask students to share their feelings. Ask them, “What makes you say that?”
- What could they do to bring about change? Now? In the future?

**Assessment Strategies**

Teacher will informally assess students throughout carousel brainstorming and astronaut museum walk.

3-2-1 Exit Ticket: Students will list 3 thoughts/ideas from today’s lesson, 2 questions they have, and 1 analogy related to the lesson.

**Differentiation**

Extension: Students choose people from the past who have the “right” stuff to be the first crew on Mars.

**Materials/Text References/Resources**

- [Rocket Boys](https://www.goodreads.com/book/show/14723333-rocket-boys) by Homer Hickam, non-fiction chapter book for teacher-directed reading (optional)
- Mystery Photo
- Carousel brainstorming questions
- Basic requirements for being an astronaut
- Astronaut biography activity
- Astronaut templates
- Who from the past should go to Mars?
- Total federal spending circle graph
- 3-2-1 Exit Ticket

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Week of 3/30/20

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**Strategies:** Inquiry, Mystery and Decision-Making

**Standards/Elements CCGPS, GPS/GSE (where applicable) and TAG Standards**

<table>
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<th>Science GSE</th>
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<tr>
<td>S4E1. Obtain, evaluate, and communicate information to compare and contrast the physical attributes of stars and planets.</td>
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| a. Ask questions to compare and contrast technological advances that have changed the amount and type of information on distant objects in the sky. |

**TAG Creative Thinking Creative Problem Solving Skills**

| CPS 5 | Develop original ideas, presentations, or products through synthesis and evaluation. |
| CPS 8 | Tolerate ambiguity when solving problems. |

**TAG Advanced Communication Skills**

| ACS 1 | Use written, spoken, and technological media to convey new learning or challenge existing ideas. |
| ACS 2 | Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language. |
| ACS 6 | Anticipate and address potential misunderstandings, biases, and expectations in communication with others. |
| ACS 7 | Respond to contributions of others, considering all available information. |
| ACS 8 | Participate in small group discussions to argue persuasively or reinforce others’ good points. |
| ACS 9 | Maintain a journal or log for self-reflection and/or self-evaluation. |
| ACS 10 | Support and defend one’s own opinions while respecting the opinions of others. |

**TAG Higher Order & Critical Thinking**

| HOTS 1 | Asks probing, insightful, and relevant questions |
| HOTS 2 | Responds to questions with supporting information that reflects in-depth knowledge of a topic. |
| HOTS 3 | Conducts comparisons using criteria |
| HOTS 4 | Makes and evaluates decisions using criteria |
| HOTS 5 | Predicts probably consequences of decisions. |

**Enduring Understanding**

**The Students Will Know:**
1. The bodies of our solar system can be studied for many different features.  
2. It is possible that other intelligent life exists elsewhere in the universe.  
3. Many things need to be considered before a Mars colony can be established.  
4. Many science fiction books are available to read.  
5. Many problems must be solved before we can travel to and colonize Mars.

**The Students Will Understand:**
1. Because the many parts of our solar system are so diverse, many challenges must be overcome before space travel and colonization can become possible.

**The Students Will Be Able to Do:**
1. Utilize research, creative problem solving, and communication skills in order to create and share a product with an authentic audience.  
2. Participate in class discussions, formulating an opinion about information and supporting the opinion with evidence.  
3. Utilize creative problem solving skills effectively.
4. Make decisions, using information to justify the decision.

**Essential Question(s)**

Why is it important to understand and explore space?

**Questions of the Day**

Do you think life exists somewhere other than Earth?
How are we exploring new territories in outer space?
How does one decide where/when to explore new territories?

**Teacher Lesson Preparation**

Review the entire lesson plan
Ensure that video links work
Make copies or create digital links for student handouts.
Makes copies of the clues for “Is There Life Out There”. Cut a set of clues for each student group of 2 or 3.
Gather materials: 2 x 3 paper, glue, markers

**Activating Strategy: Inquiry**

- Before beginning this lesson, students can practice formulating yes/no questions. Students can guess a number one of them has chosen, an object that has been put in a bag, or a nursery rhyme character, for example. It is important that students practice asking questions that have yes/no answers before doing this lesson. Encourage students to ask questions that are only asking one thing. For example, students would not ask, “Is it a black dog” but rather “Is it a dog.” Encourage them to start general (Is it living?) and then work down to specifics.
- Break the students into small groups. Tell the students that you were looking in your telescope last weekend, and you found a very interesting object. You weren’t sure exactly what you were looking at, so you took a picture and took it to the local university for a professor over to have a look. Based on past research and artifacts, the professor was also able to tell you what it was and why it is important. Challenge them to do the same by asking you yes/no questions.
- Pass out the student packets and allow the students to view the picture of the inquiry object. Also display the photo with a projector. In their small groups, have students generate a list of three tentative hypotheses of what it is and why it is important.
- Have students generate a list of five yes/no questions to test their hypotheses as a group.
- Allow each group to ask you one question at a time. Record the information for students to see. After questions are exhausted, move to round two.
- Have students generate five questions for round two in small groups. Follow the same procedure as in round one. If necessary, go on to round three.
- Before a group is willing to make a guess about what it is and what it was used for, they must fill out the Mysteries in Deep Space Artifact Sheet. They must formulate a hypothesis and the supporting evidence.

**Answer:** OSIRIS-REx spacecraft. This is the first NASA explorer of its kind. It launched off on a seven-year quest in September 2016, chasing after a big, black, unexplored asteroid to gather a few handfuls of gravel for return to Earth. These bite-size bits of ancient space rock from asteroid Bennu could hold clues to the origin of life, not just on our planet but potentially elsewhere in the solar system. Watch a 4-minute video at [https://svs.gsfc.nasa.gov/12369](https://svs.gsfc.nasa.gov/12369) to show an animation of the mission.

**Instructional Sequence and Activities**

**Mystery Lesson: Is there Life Out There?**

Tell the students that many scientists believe in the possibility of intelligent life in space. They can imagine what the civilizations must look like. Many movies have shown different civilizations and aliens in outer space. Some think
there may be as many as one million civilizations in the Milky Way galaxy alone. Other scientists do not believe that intelligent life exists out there at all. The first searches for intelligent life began when radio telescopes were invented in the 1940s. It is thought that radio waves are the best way to communicate over long distances in space. The first major search was conducted by Frank Drake in 1960. He searched for signals from two stars that are similar to the sun. What do you think?

Students should be in small groups of 2 or 3. Each group will get a set of clues, glue, markers, and a large piece of paper (about 2 x 3 feet). Tell the students to read the clues carefully, organize them into relevant groups, and give each group a descriptive label. Instruct students to then use their labeled groups to construct a hypothesis. (Example: There is intelligent life out there because .... OR There is not intelligent life anywhere other than Earth because ....) Students will present and defend their hypothesis.

Extension: Hold a Physical Barometer discussion after the student presentations. Ask students who believe there is intelligent life out there to stand on one side of the room. Students who disagree should stand on the other side of the room. As groups, students will prepare a statement to explain/defend their position to the other group. Their goal is to persuade students from the other group to join them. Each group should choose a spokesperson to present their ideas to the other group. Students may move to the other group, if they wish, at any time. Group 1 and 2 present. Then each group can present a rebuttal. De-brief and ask students what convinced them to move from or to stay with their original group.

De-brief with the students and explain that there is no right or wrong answer to the question of life somewhere else in the universe. We just don’t know. Tell students that one of our TAG standards is for them to tolerate ambiguity, in other words .... to be able to live with the idea that there is no right answer. Can students think of other situations in which there is no right answer?

Decision-Making Lesson: Where Should We Explore Next?

Tell students: The United States has a goal to establish a permanent human presence on another celestial body. You are on the NASA committee that will make this important decision as to where we should go first. Some people think we should go back the Moon, others think we should go on to Mars. There are some people who think we should explore our own deep oceans. Read the information, take notes, and then make your decision, using criteria. (Attached are information sheets, graphic organizer to take notes, and decision-making criteria chart. Students will then each make a statement as to where/why we should go, using their criteria as supporting information.)

Assessment Strategies

Student self-evaluation of decision-making lesson (attached). Teacher evaluated using the same questions.

- Did I respond to questions with supporting information that reflects in-depth knowledge of a topic?
- Did I conduct comparisons using criteria?
- Did I make and evaluate decisions using criteria?
- What was the easiest part of the decision-making process for me?
- What was the most difficult part of the decision-making process for me?

Differentiation

For students who are interested in learning more about Asteroid Bennu and the OSIRIS-REx mission, refer them to: http://www.asteroidmission.org/ They might be interested in becoming a Jr. OSIRIS-REx Ambassador.

Materials/Text References/Resources

Items for practice yes/no question activity
Set of clues for the mystery lesson for each student group of 2 or 3
Glue
2’ x 3’ paper for each student group of 2 or 3
Individual student copies of Inquiry lesson (photo and worksheet)
A Wrinkle in Time (teacher-directed fiction reading)
Rocket Boys (teacher-directed non-fictional reading)

**5th Grade Lessons**

Week of 3/16/20

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**STANDARDS/ELEMENTS CCGPS, GPS/GSE (where applicable) and TAG Standards**

**Fifth Grade**

SS5H1 Describe how life changed in America at the turn of the century.
d. Describe the reasons people immigrated to the United States, from where they emigrated, and where they settled.

SS5G2 Explain the reasons for the spatial patterns of economic activities.
a. Locate primary agricultural and industrial locations between the end of the Civil War and 1900 and explain how factors such as population, transportation, and resources have influenced these areas
b. Locate primary agricultural and industrial locations since the turn of the 20th century and explain how factors such as population, transportation, and resources have influenced these areas

**Advanced Communication Skills**
1. Uses written, spoken, and technological media to convey new learning or challenge existing ideas.
2. Produces written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
3. Creates products and/or presentations that synthesize information from diverse sources and communicate expertise to a variety of authentic audiences.

**Advanced Research Skills**
1. Uses a variety of print and non-print resources to investigate a topic of interest.
2. Formulates original and appropriate questions to test the limits of an existing body of knowledge.

**Critical Thinking and Creative Problem Solving Skills**
1. Questions accepted practices, rules, and existing principles to discover new knowledge.
2. Applies, evaluates, and adapts a variety of innovative strategies to when problem solving (e.g., recognizes problems, defines problems, identifies possible solutions, selects optimal solution, implements solution, and evaluates solution).
3. Incorporates brainstorming and other idea-generating techniques (synectics, SCAMPER, etc.) to solve problems or create new products.
4. Demonstrates skills in fluency and flexibility to solve problems or create new products.
5. Develops original ideas, presentations, or products through synthesis and evaluation.
6. Independently or through collaboration with classmates, clarifies, illustrates, or elaborates on an idea for product improvement.
7. Uses analogies, metaphors, and/or models to explain complex concepts.
8. Tolerates ambiguity when solving problems.
9. Recognizes and assumes risks as a necessary part of problem solving.
10. Monitors and reflects on the creative process of problem solving for future applications.

Enduring Understanding

Fort Pulaski was built to protect the port of Savannah. Union soldiers captured the fort by using new military technology. The construction and capture of the fort had social, economic, environmental, and military effects on Georgia’s coastline.

Essential Question(s)

How did the fall of Fort Pulaski change Georgia’s coast?

Teacher Lesson Preparation

- Preview video clips
- Put all lessons in OneNote

Activating Strategy

1. Students will write their French “Pen-Pal” e-mails.

Instructional Sequence and Activities Including Use of Technology

Includes all essential aspects of strategy, demonstrating clear understanding of how to use the strategy. The procedures are well-scripted and very clear. Technology is utilized efficiently, seamlessly, and creatively.

3. Display the graphs that depict the resources of the North vs. the South. Discuss reasons why the Union thought the war would be quick and easy. Personalized Learning: If you need a review of the causes of the civil war watch BrainPop. https://www.brainpop.com/socialstudies/ushistory/civilwarcauses/
4. Pass out the cause and effect cards and graphic organizer. Students will work in small groups to cut out and match the cards. Once students complete the organizer, have students form a larger group to compare results. Is everyone in agreement? If not, discuss why and have students defend their choice.
5. Display and discuss the evolution of Fort Design. Ask students how the design of Fort Pulaski could have been improved?
6. Students view map of Fort Pulaski and read background information from the self-guided tour.
7. Pass out creative problem-solving design plan handouts. Review steps with students. Optional: Tell students that the best design proposal will get to have their fort 3D printed.

Assessment Strategies

- Formative Assessment: Cause & Effect Graphic Organizer
- Summative Assessment: Creative Problem Solving Design Plan

Differentiation

Optional Extensions:
- View a BrainPop to review of the causes of the Civil War.
- Write a diary from the point of view of a soldier. Choose what army they will represent. Start your diary entry on the morning of April 10, 1862 and end the entry on April 11, 1862 at 5:00pm.
- Write a chronicle of the battle of Fort Pulaski from the perspective of a journalist from either a Confederate or Union Newspaper.
- Design the battle plan for a better offensive strategy from a Union Army commander’s point of view or design a battle plan for better defensive strategy from a Confederate commander’s perspective.
**Materials/Links/Text References/Resources**

- Included on subsequent pages
- Brain Pop: [https://www.brainpop.com/socialstudies/ushistory/civilwarcuses/](https://www.brainpop.com/socialstudies/ushistory/civilwarcuses/)
- Fort Pulaski Website [https://www.nps.gov/fopu/index.htm](https://www.nps.gov/fopu/index.htm)

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**STANDARDS/ELEMENTS CCGPS, GPS/GSE (where applicable) and TAG Standards**

**Fifth Grade**

S5E1. Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes.

S5L1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.

**Advanced Communication Skills (ACS) Elements**

1. The student uses written, spoken, and technological media to convey new learning or challenge existing ideas.
2. The student produces written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
8. The student participates in small group discussions to argue persuasively or reinforce others’ good points.
10. The student supports and defends his/her own opinions while respecting the opinions of others.

**Advanced Research Skills (ARS) Elements**

1. The student uses a variety of print and non-print resources to investigate a topic of interest.
2. The student formulates original and appropriate questions to test the limits of an existing body of knowledge.
5. The student gathers, organizes, analyzes, and synthesizes data from multiple sources to support or disprove a hypothesis.
6. The student develops and uses systematic procedures for recording and organizing information.
7. The student evaluates research methodologies and data to detect validity, bias, reliability, and applicability to real-world problems and/or solutions.

**Higher Order Critical Thinking Skills (HO/CTS) Elements**

1. The student asks probing, insightful, and relevant questions.
11. The student draws conclusions based upon relevant information while discarding irrelevant information.
14. The student identifies and illustrates basic principles and the foundational concepts that are central to understanding the essence of a field of study.

**Enduring Understanding**

- Students will carrousel brainstorm a list of a geologic land forms and debate their origins.
- Student will investigate through a series of clues how geophysicists theorize the composition of the earth’s layers. The Shadow Zone BACKGROUND pdf file provides a good explanation on the first page (for teachers Not Students). Teachers should pace the class through the investigation clues one at a time.
having the students constantly revise their theory. Their final theory should closely match the theory from
the shadow zone. Students will then create a clay Earth by carefully layering different colored clay in
concentric spheres. Finally the clay Earth will be cut in half to reveal the layers student will label the layers
with a toothpick and the provided labels.

**Essential Question(s)**

How do constructive and destructive processes shape the physical features of the Earth's surface?

**Teacher Lesson Preparation**

- Put all items in OneNote

**Activating Strategy**

1. **See-Think-Wonder:** This routine encourages students to make careful observations and thoughtful
   interpretations. It helps stimulate curiosity and sets the stage for inquiry.
2. **Hook:** Students will think about a time they visit a geological feature. Students will brainstorm as many
   of Earth’s Features as possible on the provided paper. Students will view a video on the Earth’s
   landforms. Then students will have access to Google Earth and list any additional features. Think Puzzle
   Explore: Students will use think puzzle explore to set the stage for deeper inquiry into Earth’s Surface
   1. What do you think you know about Earth’s Surface Feature Formation? 2. What questions or puzzles do
   you have? 3. How can you explore this topic?

**Instructional Sequence and Activities Including Use of Technology**

3. **Inquiry:** How do scientists know the core of the Earth is a solid? Have students come up with theories in
   pairs. Then have students share their theories with the class.
4. **Mystery Lesson/Investigation:** Set up the investigation using a coffee can and a hula hoop. Place the
   coffee can in the center of the circle. Shine the flash light from one edge of the circle to other side. Have
   students note the shadow. Ask students: How did scientists know the state of matter of the Earth’s
   Interior?
5. Students will refine their hypothesis based on clues
6. **Clay Models:** Students will be given 2 strips of each color Crayola clay to create a model of the.
   1. 1/4 strip of yellow: roll a sphere for the inner core.
   2. 1 strip of red: make the outer core and wrap it around the yellow sphere.
   3. 3/4 strip of red and 1 strip of yellow: mix and wrap around to create the mantle.
   4. 1/4 strip of red: thinly cover the outer core to create the Asthenosphere.
   5. Pieces of blue and green can be used to create the Lithosphere and continents and oceans.
   When complete cut the model in half to reveal the Earth’s layers. Using toothpicks and strips to label the layers.

**Assessment Strategies.**

**Ticket-out-the-Door:** What are the 4 layers of the Earth? What are 3 waves set off by an earthquake? What are 2
states of matter that exist inside the Earth? How do geologists know the composition of each layer?

**Differentiation** Lesson is clearly differentiated for gifted learners by use of one or more of the following:
acceleration, extensions, enrichment, tiered activities. Lesson incorporates concepts, principles, cognitive
skills, and methodologies that can be transferred across disciplines. Activities require students to analyze,
synthesize, and/or evaluate.

**Materials/Links/Text References/Resources**

- Exploring Landforms and Bodies of Water for Kids - FreeSchool
- Google Earth [https://www.google.com/earth/](https://www.google.com/earth/)
**Week of 3/23/20**

**TAG Strategy for this lesson: Metaphorical Expression**

**Lesson 1**

**Unit Name**

| The Art of History |

**Lesson Name**

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<tr>
<th>Freedom Fragmentation</th>
<th>Time Needed (Hours/Days)</th>
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<td>1 day</td>
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**Grade**

| 5 |

**Subject**

| Soc. St. |

**Course**

| |

**GA Standards of Excellence & TAG Standards**

*Please include both GSE & TAG Standards*

**Lesson and Choice Board Standards:**

**Social Studies Georgia Standards of Excellence:**

**SS5H1 Describe how life changed in America at the turn of the century.**

b. Describe the impact on American life of the Wright brothers (flight), George Washington Carver (science), Alexander Graham Bell (communication), and Thomas Edison (electricity).

**SS5H7 Trace important developments in America from 1975 to 2001.**

a. Describe the collapse of the Soviet Union, including the role of Ronald Reagan.

b. Describe the events of September 11, 2001, and analyze their impact on American life.

**SS5E2 Describe the functions of four major sectors in the U. S. economy.**

d. Describe the government function in taxation and providing certain public goods and public services.

**Science Georgia Standards of Excellence:**

**S5P1. Obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change.**

c. Plan and carry out an investigation to determine if a chemical change occurred based on observable evidence (color, gas, temperature change, odor, new substance produced).

**S5P2. Obtain, evaluate, and communicate information to investigate electricity.**

b. Design a complete, simple electric circuit, and explain all necessary components.

**S5L3. Obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells.**

b. Develop a model to identify and label parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus).

c. Construct an explanation that differentiates between the structure of plant and animal cells.

**TAG Standards:**

**CPS 3** Incorporate brainstorming and other idea-generating techniques (synectics, SCAMPER, etc.) to solve problems or create new products.

**CPS 6** Clarify, illustrate, or elaborate on an idea for product improvement.
CPS 7 Use analogies, metaphors, illustrations, and/or models to explain complex concepts.
CPS 8 Tolerate ambiguity when solving problems.
CPS 9 Recognize and assume risks as a necessary part of problem solving.

ACS 1 Use written, spoken, and technological media to convey new learning or challenge existing ideas.
ACS 2 Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
ACS 3 Create products and/or presentations that synthesize information from diverse sources and communicate expertise to a variety of authentic audiences.
ACS 4 Use a variety of multi-media and innovative technology to create illustrations, models, charts, tables, and graphs as tools for communication.
ACS 6 Anticipate and address potential misunderstandings, biases, and expectations in communication with others.
ACS 9 Maintain a journal or log for self-reflection and/or self-evaluation.

Essential Question(s)
What should students know when lesson is completed?

In what way(s) is the history of a time period reflected in the arts during that time period?

Question of the Day: What effect did differing viewpoints have on families during the Civil War?

Evidence of Learning:
The Students Should Know:
1. People had different viewpoints about the Civil War. The viewpoints were due to a variety of factors and had effects on relationships with others.

The Students Should Understand:
Historical situations are often reflected in the music and arts during that time period, and music and the arts often shape people’s responses to history.

The Students Should Be Able to Do:
1. Create and utilize analogies in order to explain complex concepts.
2. Utilize research, creative problem solving, and communication skills in order to create and share a product with an authentic audience.

Teacher Lesson Preparation

Vocabulary: fragmentation, industry, manufactured, agriculture, abolitionist, tariff, stagnant, fugitive, militia

Materials: student handouts, resource books, computers with Internet access, iPad, The Art of History Journals
Activating Strategy (for example: Hook/Mini-Lesson/Warm-Up/Connection to Prior Learning)

1. Explain that during this unit, you will be viewing and listening to a variety of art forms (music, visual art, photography, movies, etc.) in order to learn about history. Explain that these are PRIMARY SOURCES and discuss what that means.
2. Then, listen to both versions of “Battle Cry of Freedom” (see links at end of lesson plan) while following along with the lyrics handout. Listen to the two versions of “Battle Cry for Freedom.”
3. Visit [http://www.archives.gov/research/military/civil-war/photos/index.html](http://www.archives.gov/research/military/civil-war/photos/index.html) and select some images to show the class. You may want to preview them beforehand to select the ones you like best. There are a lot to choose from.
4. What do you predict this lesson will be about? What evidence do you have to support your hypothesis? Discuss as a class.
5. Hook: Students will participate in a carousel brainstorming activity. Students will inspect the question posed at each station, develop/record all ideas, and rotate to expand ideas at another station.
   - How is a relationship like a casserole?
   - If you could choose to live in any time period, what would it be? What does that reveal about you?
   - What are some things that are both difficult and easy?

Instructional Sequence and Activities including use of technology

1. Read the following quote from Abraham Lincoln: “A house divided against itself cannot stand.” What do you think it means? What do you think may have been going on during Abraham Lincoln’s lifetime to compel him to say this?
2. Share the title of this lesson. What do you think it means? Discuss as a class.
3. Acquiring the content: Have students read the information about perspectives and relationships during the Civil War individually. Have them complete the fact-finding organizer individually. DIFFERENTIATION: You could also do this as partners instead. Discuss as a class.
4. Direct analogy: Students will analogize perspectives/relationships during the Civil War to a parfait. Individually, record how they are alike and different using the visual organizer. Discuss as a class.
5. Personal analogy: Students will analogize themselves to a battlefield. Individually record the answers to the following questions:
   - Who are you and where are you located? What battle took place on you?
   - What was your life like before the Civil War? What are your viewpoints about the war? How do your viewpoints differ from others?
   - What was your life like after the Civil War? What are your viewpoints about the war? How do your viewpoints differ from others?
   - Can you predict what is going to happen after the Civil War is over-to your relationships with others, to your life, and to your country?
6. Students will write a story, poem, or song in the first person about their life during the Civil War.
7. Compressed Conflict: Candidates will brainstorm antonyms of Civil War perspectives in order to create compressed conflict phrases.
8. Synthesize: Students will generate another direct analogy by completing the following sentence.
   - Civil War perspectives are like ________. Give at least 5 reasons why Civil War perspectives are like the item in your sentence.
   - Allow students time to work on Choice Board activities. Complete self-assessment.
   - Discuss essential question and question of the day.
Have students complete lesson one in their journals. Grade with assessment.

**Assessment Strategies**

The Art of History Pre-test Rubric, The Art of History Journal and Assessment, Choice Board Daily Self-Assessment

**Differentiation**

*Scaffolds/ Interventions/Extensions/Enrichment*

Student groupings will vary throughout the lesson (individual, small group, and whole group) and will be based on data (test scores or learning inventories) or student choice. Choice Board activities will be based on student interest.

**Remediation:** Scaffolding and teacher support will be provided as needed for individual students.

**Materials/Links/Text References/Resources**

**Helpful Technology:**
Battle Cry of Freedom (Union Version)
https://www.youtube.com/watch?v=j6G-nVDwuOw
Battle Cry of Freedom (Confederate Version)
https://www.youtube.com/watch?v=5kWADI4umuM

Civil War Photography:
http://www.archives.gov/research/military/civil-war/photos/index.html
Choice Board Activities:
http://www.studentguide.org/great-civil-war-resources-for-k-12-students/
http://www.ducksters.com/history/civil_war.php
http://content.time.com/time/photogallery/0,29307,2026224,00.html
http://blogs.ubc.ca/etec540sept12/2012/10/28/1687/
https://www.youtube.com/watch?v=CbTN0HzdEKw&list=PLzhNYT2pXWVHC9WjB58wpZStAEPx4STS5&index=2
http://animal-testing.procon.org/
http://healthcare.procon.org/
http://teachertenure.procon.org/
http://www.onekey.com/
http://fcsdestiny.fultonschools.org/common/servlet/presenthomeform.do?l2m=Home&tm=Home&l2m=Home
http://www.safesearchkids.com/
www.sweetsearch.com
www.4me.sweetsearch.com
Week of 3/30/20

TAG Strategy for this lesson: STEM Lesson Lesson 2

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<td>TAG</td>
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GA Standards of Excellence & TAG Standards
Please include both GSE & TAG Standards

Lesson and Choice Board Standards:

Social Studies Georgia Standards of Excellence:

SS5H1 Describe how life changed in America at the turn of the century.
b. Describe the impact on American life of the Wright brothers (flight), George Washington Carver (science), Alexander Graham Bell (communication), and Thomas Edison (electricity).

SS5H7 Trace important developments in America from 1975 to 2001.
a. Describe the collapse of the Soviet Union, including the role of Ronald Reagan.
b. Describe the events of September 11, 2001, and analyze their impact on American life.
SS5E2 Describe the functions of four major sectors in the U. S. economy.

d. Describe the government function in taxation and providing certain public goods and public services.

Science Georgia Standards of Excellence:
S5P1. Obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change.
c. Plan and carry out an investigation to determine if a chemical change occurred based on observable evidence (color, gas, temperature change, odor, new substance produced).

S5P2. Obtain, evaluate, and communicate information to investigate electricity.
b. Design a complete, simple electric circuit, and explain all necessary components.

S5L3. Obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells.
b. Develop a model to identify and label parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus).
c. Construct an explanation that differentiates between the structure of plant and animal cells.

TAG Standards
CPS 1 Question accepted practices, rules, and existing principles to discover new knowledge.
CPS 3 Incorporate brainstorming and other idea-generating techniques (synectics, SCAMPER, etc.) to solve problems or create new products.
CPS 4 Demonstrate skills in fluency and flexibility to solve problems or create new products.
CPS 5 Develop original ideas, presentations, or products through synthesis and evaluation.
CPS 8 Tolerate ambiguity when solving problems.
CPS 9 Recognize and assume risks as a necessary part of problem solving.
CPS 10 Monitor and reflect on the creative process of problem solving for future applications.
ACS 1 Use written, spoken, and technological media to convey new learning or challenge existing ideas.
ACS 2 Produce written and/or oral work that is complex, purposeful, and organized, includes relevant supporting examples and manipulation of language.
ACS 3 Create products and/or presentations that synthesize information from diverse sources and communicate expertise to a variety of authentic audiences.
ACS 4 Use a variety of multi-media and innovative technology to create illustrations, models, charts, tables, and graphs as tools for communication.
ACS 6 Anticipate and address potential misunderstandings, biases, and expectations in communication with others.
ACS 7 Respond to contributions of others, considering all available information.
ACS 8 Participate in small group discussions to argue persuasively or reinforce others’ good points.
ACS 9 Maintain a journal or log for self-reflection and/or self-evaluation.
ACS 10 Support and defend one’s own opinions while respecting the opinions of others.

Essential Question(s)
What should students know when lesson is completed?

In what way(s) is the history of a time period reflected in the arts during that time period?

Question of the Day: Why did new inventions change everyday life?
Evidence of Learning:
The Students Should Know:
1. The twentieth century was a time of many inventions that had a profound effect on everyday life.

The Students Should Understand:
Historical situations are often reflected in the music and arts during that time period, and music and the arts often shape people’s responses to history.

The Students Should Be Able to Do:
1. Utilize research, creative problem solving, and communication skills in order to create and share a product with an authentic audience.
2. Formulate questions and utilize higher order thinking skills in order to create a hypothesis about a mystery object.
3. Utilize the scientific method in order to create a new invention that solves a problem.

Teacher Lesson Preparation

Vocabulary: income taxes, consumerism, advertising, zeppelin, insulin, theory of relativity, ignition, Pyrex, iron lung, aerosol, Technicolor, analog, Polaroid, holography, Teflon, modem, pacemaker

Materials: student handouts, resource books, computers with Internet access, iPad, The Art of History Journals, LCD projector,

Activating Strategy (for example: Hook/Mini-Lesson/Warm-Up/Connection to Prior Learning)

Students will participate in an inquiry lesson about a radio hat. Before beginning this lesson, students should practice formulating yes/no questions. Students can guess a number you have chosen, an object you have put in a bag, or a nursery rhyme character, for example. It is important that students practice asking questions that have yes/no answers before doing this lesson.

Instructional Sequence and Activities including use of technology

1. Share the title of this lesson. What do you think it means? Discuss as a class.
2. Break the students into small groups. Tell the students that you were looking through some very old family photographs last weekend, and you found a very interesting picture. You had never seen anything like it before and were curious as to what the object in the picture was, so you called the local university, and they sent a professor over to have a look. The professor said that the artifact dates back to the 1900s. The professor was able to identify that it could be found worldwide back then, and although it is not seen today, it has evolved and changed over the years. Based on past research and artifacts, the professor was also able to tell you what it was, what it was used for, and how it worked. Challenge them to do the same by asking you yes/no questions.
3. Have students web what they think the words 1900s, worldwide, and evolution have in common individually on a piece of paper. Have the students share some of their webbing ideas.
4. Have the students to view the picture of the inquiry object on the front of the inquiry packet. Have students generate a list of three tentative hypotheses of what it is, what it was used for, and how it worked.
5. Have students generate a list of five yes/no questions to test their hypotheses as a group. Allow each group to ask you one question at a time, and use the teacher information below to answer yes or no.
Record the information for students to see. Groups may play or pass. It is important that students know that once they make an incorrect guess, they are out of the game.

6. Allow students time to generate five questions for round two as a group. Follow the same procedure as in round one. If necessary, go on to round three.

7. Before a group is willing to make a guess about what it is, what it was used for, and how it worked, they must fill out the final sheet in their packet. They must formulate a hypothesis and the supporting evidence. If they are incorrect, they may not ask any more questions or make any more guesses for the rest of the game. When a group comes up with the correct response, they are the winners.

8. Read the following quote from Plato: “Necessity is the mother of invention.” What do you think it means? What types of problems do you think some of the inventions of the twentieth century were trying to solve? Why do you think it was important that these problems were solved? What was going on during the time that made these problems so significant? What do you think would have happened if these problems had not been solved? Do you think these problems could ever occur again? Why or why not? How have these inventions been improved upon over the years?

9. Project the images of crazy but useful inventions. Discuss what each one is. Have students work in small groups to create a word web about what these inventions have in common. Share.

10. As a class, review and discuss the timeline of twentieth century inventions.

11. Discuss the STEAM activity directions. When students are finished with their inventions, they may share their inventions with another group or the whole class to be evaluated with the Peer PMI.

12. Allow students time to work on Choice Board activities. Complete self-assessment.

13. Discuss essential question and question of the day.

14. Have students complete lesson two in their journals. Grade with assessment.

Assessment Strategies
The Art of History Journal and Assessment, Choice Board Daily Self-Assessment, Inspiring Inventions STEAM Activity Peer PMI

Differentiation
Scaffolds/Interventions/Extensions/Enrichment
Student groupings will vary throughout the lesson (individual, small group, and whole group) and will be based on data (test scores or learning inventories) or student choice. Choice Board activities and invention project problem will be based on student interest.

Remediation: Scaffolding and teacher support will be provided as needed for individual students.

Extension: Students may complete additional Choice Board activities of their choosing if they complete the required number.

Materials/Links/Text References/Resources
Helpful Technology:
Choice Board Activities:
http://www.studentguide.org/great-civil-war-resources-for-k-12-students/
http://www.ducksters.com/history/civil_war.php
http://content.time.com/time/photogallery/0,29307,2026224,00.html
http://www.dailymail.co.uk/sciencetech/article-2449468/Sony-Walkman-zip-Past-centurys-100-inventions.html
http://blogs.ubc.ca/etec540sept12/2012/10/28/1687/
https://www.youtube.com/watch?v=CbTNoHZdEKw&list=PLzhNYT2pXWVHC9WjbB58wpZStAEpX4ST55&index=2
http://animal-testing.procon.org/
http://healthcare.procon.org/
http://teachertenure.procon.org/
http://www.onekey.com/
http://fcsdestiny.fultonschools.org/common/servlet/presenthomeform.do?l2m=Home&tm=Home&l2m=Home
http://www.safesearchkids.com/
www.sweetsearch.com
www.4me.sweetsearch.com
www.kidrex.org
http://www.newseola.com
http://georgiainfo.galileo.usg.edu/
http://www.kidskonnect.com/
www.mackinvia.com
www.goquest.com
http://www.pics4learning.com/
http://www.safesearchkids.com/safe-image-search.html
http://healthresearchfunding.org/pros-cons-food-additives/
http://energyinformative.org/nuclear-energy-pros-and-cons/
http://healthresearchfunding.org/pros-cons-human-cloning/
http://www.globalissues.org/article/166/womens-rights
http://www.lifecil.org/about/disability-rights-movement/