**Fifth Grade - Digging Into History**

**Standards Focus**:
*SSP.01: Gather information from a variety of primary and secondary sources, including:
-Printed materials
-Graphic representations
-Artifacts
-Media & technology sources
*SSP.06: Develop geographic awareness by:
-Determining relationships among people, resources, and ideas based on geographic location
-Analyzing interaction between humans and the physical environment

**Other Integrated Standards**:
*5.ETS2.2: Describe how human beings have made tools and machines to observe and do things that thy could not otherwise sense or do at all, or as quickly or efficiently. (Science)
*5.RI.IKI.9: Integrate information from two or more texts on the same topic in order to build content knowledge. (Reading)

**Digital Resources**:
-National Geographic Kids Adventurer Magazine Digital- March 2020 issue "Digging Up History"
https://explorer-mag.nationalgeographic.org/adventurer_april_2020/digging_up_history
-National Geographic Kids Adventurer Magazine Digital- March 2019 issue "Saving History"
https://explorer-mag.nationalgeographic.org/adventurer_march_2019/saving_history
-Map Maker Night Lights
https://mapmaker.nationalgeographic.org/hBqEWKbXuR3iHd6Ksz0c8G/
-"Colonial Artifacts...or Fiction?" Resource
https://www.nationalgeographic.org/video/colonial-artifactsor-fiction/
-"Earth at Night" page 20-27 "Where Do Night Lights Come From?"
https://www.nasa.gov/sites/default/files/atoms/files/earth_at_night.pdf

**Career Focus**:
Space Archaeologist- Use the video below to introduce the career:
https://youtu.be/BL7L32JSEG4

**Materials Needed**:
*Computers (to read the two articles and view the map)
*Chart paper and marker
*Optional: Printed copies from "Earth at Night" page 20-27 per student/group
*Copy of response page for each student

**Lesson**:
**Introduce the Big Idea**:
-Begin lesson by creating a chart with students of what some examples of primary sources are. Record student ideas on the chart paper.
-Inform students that they will be digging into two texts regarding primary sources today, both likely and unlikely ones.
-Divide the class into two groups, one group will read "Digging Up History" and the other will read "Saving History." After each group completes, they will present to the other group what they read and summarize. Facilitate a discussion with students about what it means to be a primary source and how their viewpoint may have changed given what they just read.
-Go back to the chart originally created. Ask students if anything needs to be added or changed given the new information.

**Vocabulary**:
-Primary source

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| **Explore "Where Do Lights Come From?"**:<br>-Inform students that you are going to switch gears and take a look at some images from today. Ask students to read article highlighting the things that satellite images at night can tell us. The article is on page 20-27 of Earth at Night. After students read, create a new chart of the information they have collected. Pose the following questions to students: Will this type of information be something that future generations will want to know? Will future historians value any of this information as something that will tell us more about the culture of this era?<br><br>**Task**:<br>-Students will demonstrate their understanding by analyzing the Night Lights map. Begin by showing students the career video for Space Archaeologists. Discuss the role that modern day satellite images play in understanding today's society and how they can be utilized as a primary source.<br>-Hand each student/group a GIS analysis page. Direct students to the website for the Night Lights map. From there they will respond to the questions on the analysis page.<br><br>**Closing**:<br>-To close this lesson, ask students how primary sources of today may vary from primary sources of the past. Ask them to use evidence in their responses. Lead them back, if needed, to the discussion questions listed in "Where Do Lights Come From?" to support conclusions. | **Vocabulary**:<br><br>-satellite<br>-civilization |

# GIS Analysis "Night Lights"

1. **What area in Africa is the most densely populated? Why?**

2. **Looking at the United States, why are there some lights that are in the water rather than on land? Is this present anywhere else in the world?**

3. **What countries are most populated based on this map? How do you know?**

4. **Based on this satellite image, what countries may have fishing as a major industry?**

**Could satellite images be considered primary sources? Construct an argument.**