

HBCSD TECHNOLOGY LESSON PLAN

4th GRADE (Lesson 2)

Grade Level - 4

Lesson Title - Create a digital representaion of what you have learned about space!

Standards Based on Draft NGSS Standards

Science- Next Generation Science Standards (NGSS)

[SC.4.E.5.1](#) - Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons.

[SC.4.E.5.2](#) - Describe the changes in the observable shape of the moon over the course of about a month.

[SC.4.E.5.3](#) - Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day.

[SC.4.E.5.4](#) - Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and stars are connected.

Technology Competencies:

- Use Cut/Copy/Paste functions
- Create and revise original text at computer
- Format text (size, font, color, etc.)
- Use developmentally appropriate multimedia resources.
- Create a multimedia presentation including images, sounds, and videos.

Purpose

Students will create a digital presentation within a digital format to represent what they have learned about space.

Resources

Solar System Teaching Videos:

<http://www.turtlediary.com/kids-videos/solar-system.html>

http://www.kidsastronomy.com/solar_system.htm

Solar System Teaching Websites:

<http://solarsystem.nasa.gov/index.cfm>

<http://osr.org/articles/great-space-and-astronomy-lesson-plan-ideas/>

VoiceThread Examples:

<http://voicethread.com/?#q+solar+system+.b1720146.i9053899>

<http://voicethread.com/?#q+solar+system+.b2043552.i10827884>

Science text

Trade Books on Space/Solar System

- www.voicethread.com / www.prezi.com / iMovie / PowerPoint



Supplies

- Computers with Internet Access
- Access to VoiceThread.com, iMovie, PowerPoint, or Prezi.com (VoiceThread has a free version for educators and a paid version for each student to have his/her own license).

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- Text and Trade Books about space

Direct Instruction

1. Students will learn about the patterns in the sky, the phases of the moon, how the earth, sun, and moon are connected, and the reason why we have seasons on Earth from directed lessons (text book, trade books, videos mentioned in resources).
2. You will need to introduce how to use a VoiceThread, an iMovie, or a Prezi if these are unfamiliar. How to make a VoiceThread - <http://voicethread.com/?#q+how+to+make+a+voicethread.b1445657.i7633766>

Guided Practice

1. Create a class VoiceThread (or whatever media you are using) to demonstrate how to input graphics into the program and make comments.
2. Students will choose a topic to study further and report on withing their presentation. Since there are so many different topics in space, you will not have to have any duplicate topics.
3. Some topics may include:
 - black holes
 - asteroids or meteors
 - seasons
 - rock planets vs. gas giants
 - asteroid belt
 - individual planets
4. After students have researched their topics further and taken notes, they will input their information into their digital presentation.

Differentiated Instruction

- EL - EL students may need a student buddy the first few times they go to navigate the Internet, cut and paste an image, or record their findings. Realia must also be used when presenting information about space.
- GATE - Students may create an additional presentation about a related topic of interest regarding space (possibly an inquiry presentation of an unknown aspect of space).

Assessment

Teacher will assess the final product for accurate information.
A final presentation viewing night for parents may be fun!