

Decatur Intermediate Learning Center Applied Technology Lesson Plan

School
Home Room

Grade
Subject: Science

Date:
Time:

-- Rendezvous with a Comet --

Activity Type	Internet Research, Creating Multi-media presentations Graphic design
Standard(s) Addressed	<p>NETS for students Technology Productivity Tools 3.Students will be able to use productivity tools to enhance learning, increase productivity, and promote creativity by c. Using special formatting features (e.g., borders, shading, centering, justification) of a word-processing program; g. Performing basic skills in word-processing programs: highlight, cut and paste, delete, exit, enter data, open two programs and move back and forth between them; i. Using draw, paint, or graphic software to create simple signs, posters, banners and/or charts; j. Demonstrating the text editing features of a word-processing program (e.g., boldface, italics, underline, different size and style of fonts) to produce a finished product.</p> <p>Technology Communication Tools 4.Students will be able to use a variety of media and formats to communicate information and ideas by a. Publishing documents with text and graphics; b. Preparing an interactive multi-media presentation;</p> <p>Indiana Science Standards- Computation and Estimation The Universe 5.3.1 Explain that telescopes are used to magnify distant objects in the sky including the moon and the planets. 5.3.2 Observe and describe that stars are like the sun, some being smaller and some being larger, but they are so far away that they look like points of light. 5.3.3 Observe the stars and identify stars that are unusually bright and those that have unusual colors, such as reddish or bluish. * Motion: the change in position of an object in a certain amount of time. * Energy: what is needed to do work.</p> <p>Constancy and Change 5.6.4 Investigate, observe, and describe that things change in steady, repetitive, or irregular ways, such as toy cars continuing in the same direction and air temperature reaching a high or low value. Note that the best way to tell which kinds of change are happening is to make a table or a graph of measurements.</p> <p>Math- Standard 3- Algebra and Functions 5.3.4- Identify and graph ordered pairs of positive numbers. 6.3.7- Identify and graph ordered pairs in the four quadrants of the coordinate plane</p>
Essential Questions	<p>What is a comet? How is it different from a meteor or asteroid? How will I find out information about a comet? How are comets named? Can anyone name a comet?</p>
Content Overview	Students will prepare for their mission to the Indianapolis Challenger Center. The students will demonstrate their knowledge of comets by creating an illustration of a comet and describing said comet. The students will then practice for their mission by doing a variety of activities.
Assessment	<p>Students will research about comets and record their research in complete sentences with correct capitalization and punctuation. Multi media presentation will have 4 slides giving information about comets. These slides will include buttons, illustrations, written narration with correct spelling, punctuation and capitalization. Students will play "Who wants to be a Millionaire" as a final evaluation of their knowledge.</p>

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Objectives	Students will be able to demonstrate their knowledge of how comets form by describing the process along with an illustration. They will also prepare for their mission by utilizing algebra and xy axes to identify points on a grid.
Suggested activities to prepare for unit.	Students will have studied the solar system and understand the difference between a planet, a star or our sun, a meteor, and a comet. Students will have been introduced to the xy coordinates on a grid.
Vocabulary	coma, nucleus, tail, coordinates, orbit, Kuper's belt, Oort belt,
Materials	School web page http://www.msddccatur.k12.in.us/INT/weblinks/space/star/birth.htm Media Blender Tech4learning recipes for Media blender
Preparation & Management	Day 1- individual research on Internet Day 2-5 - Whole group instruction and modeling how to create cards in Media blender, Students will be working independently to create their cards, insert buttons that transition between cards, insert text boxes and type in their text, draw illustrations to represent their understanding of the lifecycle of a star.
Student Procedures	Day 1- Students will use the web page to research information about comets Day 2- Students will organize their Media blender presentation into 4 cards Students will create and maintain a folder with their project on the Blue Academy server. Students will create on each slide 2 buttons that will allow the student to move forward and backward Students will create on each slide a text box that will include all of the data that explains the anatomy of a comet and they will name their comet based on scientific principles. Day 3- Students will draw an illustration that demonstrates their understanding of a comet Students will print their project Day 4 Students will practice Triangulating comets using the web page, students will also use the glove boxes to practice for their missions, They will also practice taking and giving verbal directions without eye contact simulating mission control to the space station. Day 5- Students will review the information about comets by playing "Who wants to be a Millionaire"
Suggested post-activities to get the most of out this lesson	Students can show their project to the other members of the class to demonstrate their understanding of comets Student work will be pieced together and used to teach other students about comets and will be posted on the school web page.
Suggested Literature/Websites	School Web Site- http://www.msddccatur.k12.in.us/INT/weblinks/space/comet/comet2.htm