



## ***Rendezvous with a Comet***

(Mission Preparation for the Challenger Learning Center)

### **Grade 5**

**Essential Question:** 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?

### **Objectives:**

#### **NETS Skills:**

Students will be able to demonstrate a sound understanding of the nature and operation of technology systems by:

**1. Creativity and Innovation:** *Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.*

*1a- applying new ideas*

**6. Technology Operations and Concepts:**

- understanding and using telecommunication services as available through a local area network (LAN) and a wide area network (WAN);
- utilizing basic computer terms correctly;
- saving, backing-up, and retrieving files on a computer hard drive, storage medium, or server;
- knowing the function of the extended keyboard keys;
- touch-typing accurately using alpha-numeric keys;
- mastering the basic skills of file management and document manipulation; open a new document, save, close, move, rename, and reopen files, make back-up copies of files and print copies.
- understanding that documents or files created on a computer system are the property of the creator;
- understanding the basic concepts of copyright as it relates to technology;
- using special formatting features (e.g., borders, shading, centering, justification) of a word-processing program;
- editing text in a document using an electronic spell-checker and grammar-checking software;
- publishing documents with text and graphics;
- preparing an interactive multi-media presentation;

#### **Science:**

##### **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.

##### **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.

#### ***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

**21<sup>st</sup> Century Skill- Information, Media and Technology Literacy Skill-** People in the 21<sup>st</sup> century live in a technology and media-driven environment, marked by access to an abundance of information, rapid changes in technology tools and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21<sup>st</sup> century, citizens and workers must be able to exhibit a range of fictional and critical thinking skills.

## **Overview of the Project**

### **Week 1:** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 5 then Lesson 6 of [Keyboarding](#)**- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

### **Science- Research and Explore Comets**

**Essential Question:** 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?

**Science** Students will research using the web page. <http://www.challengerindy.org/Lessons/Comet/comet2.htm>

### **Week 2:** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 6 then Lesson 7 of [Keyboarding](#)**- If you didn't get scores last week take them this week to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

**Science Finish Researching Comets.** This should take about 20-30 minutes. After that, all student will creates their basic project either on Media Blender and save the base project on their servers.

### **Week 3:** Log on- Keyboarding-(10 Minutes)

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Begin with **Lesson 6 then Lesson 7 of [Keyboarding](#)**- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

**Science: Begin working on their Comet Media Blender;** Students will have to make inferences about comets. There is no wrong answer on these questions as long as they are defended.

Create a 4 slide card presentation about comets The 4 cards will include:

- Title , student and teacher names
- Difference between long and short period comet and question
- Parts of a comet
- Interesting fact

### **Week 4:** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 6 then Lesson 7 of [Keyboarding](#)**- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

**Science:** Students will continue to work on their presentations.

### **Week 5-** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 7 then Lesson 8 of [Keyboarding](#)**-

**Science:** Students will present their presentations to the class

**Essential Question: Students will defend their answer about a long period or short period comet.**

### **Week 6-** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 7 then Lesson 8 of [Keyboarding](#)**-

**Science:** Students will review the information about comets by playing "Who wants to be a Millionaire"

## Rendezvous With A Comet- Daily Lessons

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### **Week 1:** Log on- Keyboarding-(10 Minutes)

Begin with **Lesson 5** then **Lesson 6** of [Keyboarding](#)- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

#### **Procedure:**

##### **Log On**

- Have students log onto the computer
- Click on e
- Go to Technology
- Elementary Applied Technology Folder
- [Keyboarding](#) Students will practice keyboarding and go to lesson 5 then go on to Lesson 6 of [Keyboarding](#)- Continue to monitor students use of fingers and home row. Make sure students are using all their fingers on the keyboard. Record the students progress on the Skills assessment.

### **Science- Research and Explore the importance of Comet for their Challenger Center Mission.**

**Essential Question:** 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?

#### **How to get there**

- Click E
- Technology
- Elementary Applied Technology
- Grade 5
- Rendezvous with a Comet <http://www.challengerindy.org/Lessons/Comet/comet2.htm>
- Students will research using the web page.
  - Students will be answering the questions in complete sentences so they will be able to use that information on their media blender project.

**Assessment:** Students will discuss what they have learned about comets and why we would be launching probes to learn more about them.

## **Week 2: Finish Researching and begin creating the Media Blender Project**

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### **Keyboarding- Log on- Keyboarding-(10 Minutes)**

Begin with **Lesson 6** then **Lesson 7** of [Keyboarding](#)- If you didn't get scores last week take them this week to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

#### **Procedure:**

##### **Log On**

- Have students log onto the computer
- Click on e
- Go to Technology
- Elementary Applied Technology Folder
- [Keyboarding](#) Students will practice keyboarding and go to lesson 6 then go on to Lesson 7 of [Keyboarding](#)- Continue to monitor students use of fingers and home row. Make sure students are using all their fingers on the keyboard. Record the students progress on the Skills assessment.

**Science Finish Researching Comets.** The research should be done in about 20 minutes.

#### **Pass out the students research sheet.**

- This document has their research on one side and their media blender guide on the other. This is what they will use to finish their presentation.

#### **Begin Media Blender presentation-**

- At that time, have everyone minimize their web page and work in group to create their Media Blender.

**Differentiation-** All of the students in the class will be at different levels of completion of this project. Have all the students do this part together so that when they are ready to work on their media blender they have it saved in their documents. Students will also gather important information about comets

Have all students begin to create their Media Blender with 6 slides

The 6 slides will include:

- Title (Including their name and teacher name)
- Slide 2- What do Comets have to do with the sun?
- Slide 3- Why are comets so important
- Slide 4- Where do comets go when they are not visible here on Earth?
- Slide 5- Why are comets so important?
- Slide 6- Most interesting fact.

### **Create the Media blender project**

**Objective:** Students will create their basic 6 slides for their Media Blender project then they will begin typing in information about comets.

#### **Materials:**

Research sheet

Media blender software

#### **Logging on**

Students' user name is first name.last name (no space)

Password will be their birthday. Example August 7, 1996 would be 08071996

#### **Media Blender:**

##### **How to get there:**

- Click start
- Program
- Tech 4 Learning
- Media blender
- Media blender
- New Project
- Click

## 1) Discuss the palette

Talk to the students that the hand is used when they want to write, draw or push buttons. The arrow is used when they need to fix an object that isn't working correctly or they want to move it.



## 2. Insert a text box

- First thing is to get a text box on the page
- Click the box with the A and looks like a piece of paper
- Click OK
- Click and drag across the screen the size that is wanted for the text box.
- Type the information from the planning sheet which is on the back of the research sheet.
- Format
- Click and drag to get all of the text
- Click format
- Justified
- Center

## 3. Creating Next button

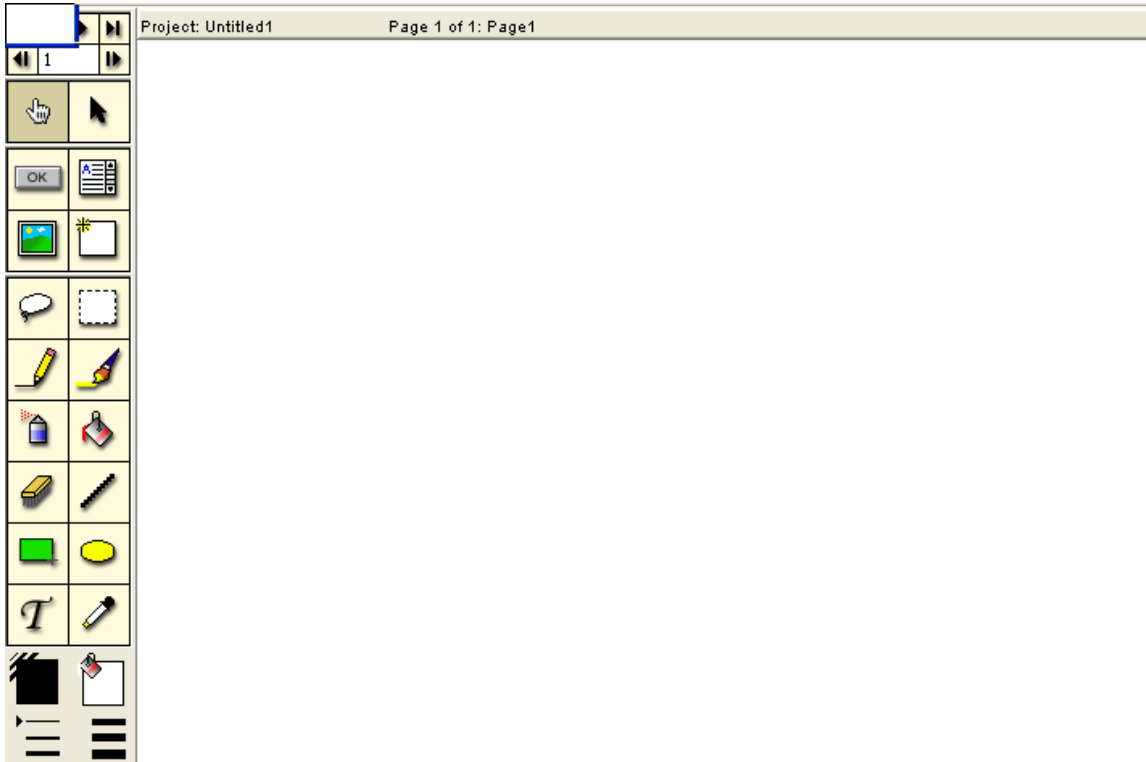
- Object
- New button
- Select a shape
- Take out the word untitled replace with next
- Under that type next again
- Click on Style
- Keep the text color dark and change the button color to something light.
- Click the Action button
- On the left hand column click "next page" this will hook the button up to go to the next page of the project.
- Click OK, OK

## 4. Creating a back button

- Use the arrow and click again on the next button that you have created
- Drag that button down to the bottom right corner of your screen.
- Hold the control and C keys down (this will copy the button which you will change to be the new back button)
- Click control V- This will paste your new button.
- Drag this new button to the middle of your screen.
- Double click on this button
- Take out the word next and replace it with back
- Do the same thing under it.
- Click the Action button
- Click- Previous page
- Click OK, OK

## 5. Duplicating Page

- Now you can duplicate the page and use it for the next 5 slides of your presentation.
- How to duplicate page. The top of the page says page 1 of 1.
- Hold the control button down then click D
- You will see the page go to 2 of 2
- Then control D again until you have 6 of 6



Now **Save** your project by Control S- it will instantly save your work in the right folder.

- Once the pages have been created the students will type in their data on each slide from the planner.
- After the students have all of their information on, they are ready to draw pictures to represent each of the different parts of their research.

**Assessment:** Students will discuss what they have learned about Media Blender and how well they are doing with their keyboarding skills.

**Teacher Note:** Be sure to have the students create their project together as a group first. I know you will have between 5-7 students who are behind the rest of the group, but you will be able to go back and give them individualized attention once you have the entire class at a place where they can move at different speeds. Take the 15 minutes to create the project together. Make sure that ALL students create all their slides and have all the buttons working first, then have them type in their information. After that, you can take another 5 minutes or so to teach techniques of drawing. This will be a few days into the project. The last thing the students will do is draw. If the students draw whenever they want, they will end up with no meat in their project and one picture drawn.

## Week 3: Media Blender Project- typing in information

Begin with **Lesson 6** then **Lesson 7** of [Keyboarding](#)- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

### Procedure:

#### Log on- Keyboarding-(10 Minutes)

- Have students log onto the computer
- Click on e
- Go to Technology
- Elementary Applied Technology Folder
- [Keyboarding](#) Students will practice keyboarding and go to lesson 6 then go on to Lesson 7 of [Keyboarding](#)- Continue to monitor students use of fingers and home row. Make sure students are using all their fingers on the keyboard. Record the students progress on the Skills assessment.

### Science: Continue working on their Media Blender project

#### Open the Rendezvous with a Comet Media blender project

- Click on start
- All programs
- Tech 4 learning
- Media Blender
- Open the document.

#### Getting their resource-

If students need the Rendezvous with a Comet web page here is how they get there.

#### How to get there:

- Minimize the Media Blender
- Double click on the E
- Technology
- Elementary Applied Technology
- Grade 5
- Rendezvous with a Comet
- Click

Students will finish recording the data in their presentation.



### Students will be drawing their pictures using Media Blender

Once the students have all of the text enter they may begin drawing illustrations using their Media Blender Planner

Once students have all their text in their project they can create the illustrations.

Tips: If the student has to erase drawings, Use the lasso button to encircle the "mistake" then delete. This will save a whale of a lot of time.

Students can insert an picture using the object button. Only allow the student to put in one picture. We want them to be able to draw their own pictures.

## Week 4: Media Blender Project- begin drawing illustrations

Begin with **Lesson 6** then **Lesson 7** of [Keyboarding](#)- This month; take a score of each student to see how they are progressing with keyboarding accuracy and speed. Record use of home row on Skills Assessments.

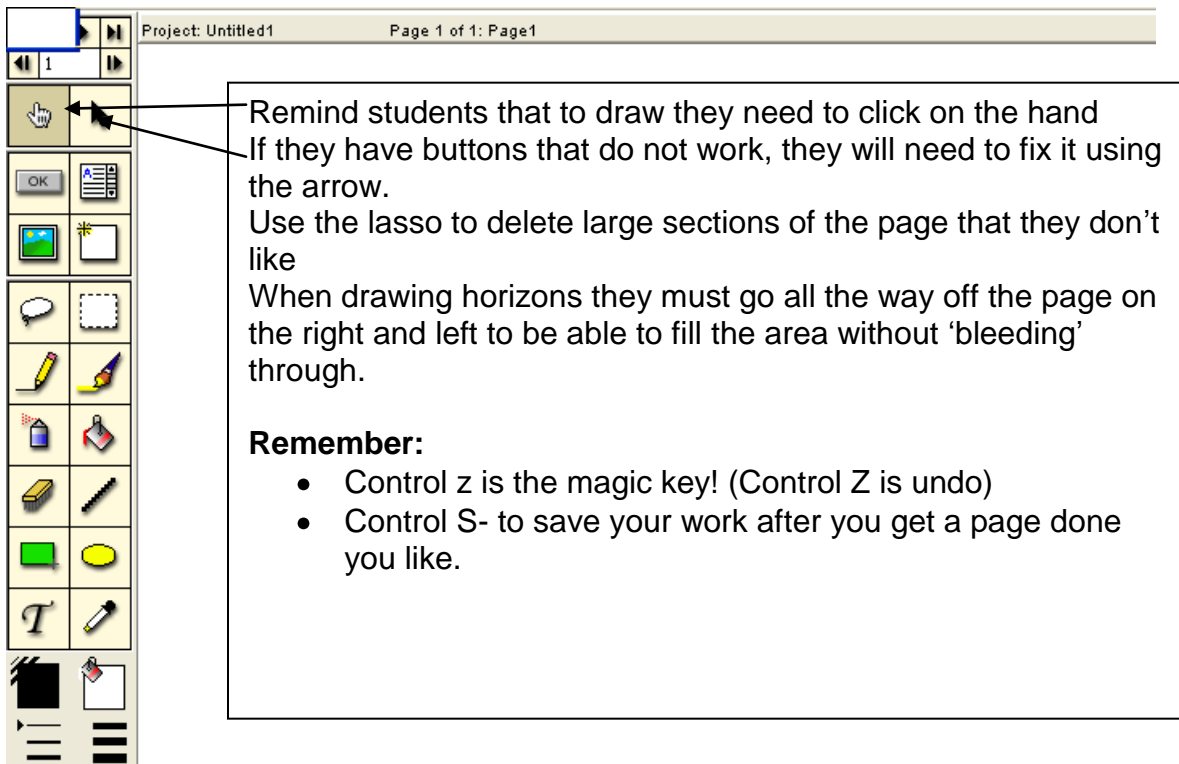
### Procedure:

Log on- Keyboarding-(10 Minutes)

- Have students log onto the computer
- Click on e
- Go to Technology
- Elementary Applied Technology Folder
- [Keyboarding](#) Students will practice keyboarding and go to lesson 6 then go on to Lesson 7 of [Keyboarding](#)- Continue to monitor students use of fingers and home row. Make sure students are using all their fingers on the keyboard. Record the students progress on the Skills assessment.

**Science:** Students will continue to work on their presentations using the drawing tool.

Look at Week 3 with PowerPoint or Media blender-



Project: Untitled1 Page 1 of 1: Page1

Remind students that to draw they need to click on the hand  
If they have buttons that do not work, they will need to fix it using the arrow.

Use the lasso to delete large sections of the page that they don't like

When drawing horizons they must go all the way off the page on the right and left to be able to fill the area without 'bleeding' through.

**Remember:**

- Control z is the magic key! (Control Z is undo)
- Control S- to save your work after you get a page done you like.

## **Week 5- Media Blender Project- continue drawing illustrations on each page of project and finish the project.**

Begin with **Lesson 7** then **Lesson 8** of [Keyboarding](#)-

### **Procedure:**

Log on- Keyboarding-(10 Minutes)

- Have students log onto the computer
- Click on e
- Go to Technology
- Elementary Applied Technology Folder
- [Keyboarding](#) Students will practice keyboarding and go to lesson 7 then go on to Lesson 8 of [Keyboarding](#)- Continue to monitor students use of fingers and home row. Make sure students are using all their fingers on the keyboard. Record the students progress on the Skills assessment.

**Science:** Students will finish their presentations and print

**Print:**

**File**

**Print Project**

**Properties**


**1 up to 4 up (makes sure you have 4 slides on each page)**

**Ok**

### **Enrichment:**

On the Comet page, there are activities that the students can do to prepare for the challenger center mission. One game is to triangulate the position of the comet

**How to get there:**

- Click 
- Technology
- Elementary Applied Technology
- Grade 5
- Rendezvous with a Comet
- Practice for your mission
- Navigation
- This will help students learn x y coordinates
- There are also 3 other activities The students can do to prepare for Their mission on this enrichment Page.

