

## Hubble Space Telescope Inspired Research Wiki Pages

### National Science Standards:

Earth and Space (Standard D) - All students should develop understandings of

K-4: objects in the sky

5-8: Earth in the solar system

9-12: origins and evolution of the earth system

9-12: origin and evolution of the universe

Science and Technology (Standard E) K-12 All students should develop understandings about science and technology.

### National Language Arts Standards:

Students adjust their use of spoken, written, and visual language to communicate effectively with a variety of audiences for different purposes.

Students employ a wide range of strategies as they write and use different writing processes elements appropriately to communicate with different audiences for a variety of purposes.

Students conduct research on issues and interests by generating ideas and questions, and by posing problems.

Students use spoken, written, and visual language to accomplish their own purposes.

## Objective:

Students will complete a guided inquiry about the Universe using the Hubble site.

## Materials:

Interest Survey – teacher created

*The Important Book* by Margret Wise Brown

Access to computers to complete the following:

1. A Wiki Space to display students work (make sure students have permission to use and publish on the Internet). Teachers can sign up free for a wiki space at [www.wikispaces.com](http://www.wikispaces.com)
2. [www.hubblesite.org](http://www.hubblesite.org)

## Prior to Day One:

1. Teacher administers the Interest Survey to the class.
2. Teacher looks at data and determines the background knowledge of the class.

## Day One:

1. Provide background on the Hubble Space Telescope by using the power point presentation “The Hubble Space Telescope.” This includes facts about Hubble and uses images from the Hubble related to the life cycle of stars. Additional information can be obtained from The Telescope – Hubble Essentials from the Hubble site: [www.hubblesite.org](http://www.hubblesite.org)
2. Read *The Important Book* by Margaret Wise Brown
3. Discuss the set up of the book with the repetition on each page.
  - a. The important thing about \_\_\_\_\_ is...
  - b. 3 descriptions of the object follow.
  - c. The page ends with a repeat of the first sentence.
4. Look at [www.hubblesite.org](http://www.hubblesite.org) - discuss with the class information that can be gained from this site about the Hubble Space Telescope and the impact that it has had on our understanding of the Universe.

## Day Two:

1. Explain that students are going to find a picture from [www.hubblesite.org](http://www.hubblesite.org) and import it to the classroom wiki site to their page.
2. Allow students the time to explore and find their picture.
3. Import the picture to the student's wiki page on the classroom wiki site.
4. Teacher checking to make sure pictures are being imported from the Hubble site.

### Day Three and Day Four:

1. The student will then create their own version of a page from *The Important Book* related to their picture on the wiki page by researching the content of the picture on one of the following possible sites: [www.hubblesite.org](http://www.hubblesite.org) , [www.NASA.gov](http://www.NASA.gov) , or [www.wikipedia.com](http://www.wikipedia.com)
2. The students use the pre-write sheet, which teacher has checked over, to type the text on their page.
3. Teacher is monitoring the typing of the pages by checking for obvious errors in format, spelling, and content.
4. The students site their source and have the opportunity to adjust their text color and font.
5. The students are made aware that their page will be published on the internet and to make sure it is ready to be published.
6. Students provide a final title for their page in this format: topic by author.
7. Teacher completes final review of the page.

### **Differentiation for your students:**

1. Students can do further in-depth research on their image adding these details to their page.
2. Students can create a second page using a different image.
3. Students can investigate other areas of the Hubble site: [www.hubblesite.org](http://www.hubblesite.org) and share the most interesting thing that they learned with the class and family members.

After the pages are finished:

1. Administer post survey
2. Ask students to share their page with their family and friends.

If you are interested in this lesson, you may be interested in the following:

### **Other Hubble Lesson Plans:**

The Great Hubble Lesson Plan Library

<http://school.discoveryeducation.com/lessonplans/programs/hubble/>

*Hubble Telescope*

[http://cybersleuth-kids.com/sleuth/Science/Space/Hubble\\_Telescope/index.htm](http://cybersleuth-kids.com/sleuth/Science/Space/Hubble_Telescope/index.htm)

Amazing Space

<http://amazing-space.stsci.edu/>

Top Stars

<http://topstars.strategies.org/>

### **Current Space Information:**

[www.nasa.gov](http://www.nasa.gov)

[www.hubblesite.org](http://www.hubblesite.org)

Buzz Aldrin - (Space Exploration app for I-phones)

<http://itunes.apple.com/us/app/buzz-aldrin-portal-to-science/id361496196?mt=8>

**Evaluation:**

<h2>Hubble Inspired Wiki Page Rubric</h2>	
4	Student's wiki page includes: a picture from the Hubble site, a referenced website for information, follows the format of <i>The Important Book</i> , includes details and/or description of the image from the website referenced, page is free of spelling errors.
3	Student's wiki page includes: a picture from the Hubble site, follows the format of <i>The Important Book</i> , includes details and/or description of the image, page has some spelling errors or a website for information is NOT referenced.
2	Student's wiki page includes: a picture from the Hubble site, includes details and/or description of the image, page has some spelling errors and/or a website for information is NOT referenced, does not follow the format of <i>The Important Book</i> .
1	Student's wiki page includes: a picture from the Hubble site, includes few details and/or description of the image, page has some spelling errors and/or a website for information is NOT referenced, does not follow the format of <i>The Important Book</i> .
0	Student's wiki page includes: a picture from the Hubble site only or did not follow the directions for the assignment.