

Name : \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Hubble Spacecraft Webquest

For this webquest, go to the following website:

[http://hubblesite.org/the\\_telescope/hubble\\_essentials/](http://hubblesite.org/the_telescope/hubble_essentials/)

On this website, read the information and answer the following questions in YOUR OWN WORDS and in COMPLETE SENTENCES:

- 1) When was the Hubble Space Telescope first launched?
- 2) What advantage does a space telescope have over a land telescope?
- 3) Why is the Hubble Telescope such an important instrument for amateur astronomers (as opposed to visiting an observatory, etc)?
- 4) Enlarge the diagram of the telescope. What type of telescope is this? (Reflecting OR Refracting, Optical OR Radio - you will need 2 answers here)
- 5) How fast does the Hubble travel?
- 6) What gives Hubble its excellent clarity – its size or its position in space?
- 7) What is Hubble powered by?
- 8) Who came up with the idea to have a telescope orbiting the Earth?
- 9) Who is Edwin Hubble? What were his scientific contributions?

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10) Name 3 problems that Hubble encountered.

11) Name 5 of the scientific instruments on board?

12) Name at least 3 of the discoveries that have been made by the Hubble since its launch.

13) Hubble is expected to continue to deliver images to Earth until what year?

14) What will happen to the Hubble Telescope after this year?

**Go to the Quick Facts Page**

15) How big is the Hubble? (length, diameter, mass) AND How big are its primary and secondary mirrors?

16) What can the Hubble Telescope not see? Why?

17) How much data and pictures does the Hubble send back to Earth each DAY in terms of meters of books on a shelf?

18) What was the cost to launch the Hubble?

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19) How far away from Earth is the Hubble's orbit?

**Go to [http://hubblesite.org/the\\_telescope/team\\_hubble/](http://hubblesite.org/the_telescope/team_hubble/)**

20) Explain why Hubble uses Fine Guidance Sensors. Explain what these sensors do.

**Go to [http://webbtelescope.org/webb\\_telescope/](http://webbtelescope.org/webb_telescope/)**

21) What is the next stage in telescopes? What is the new telescope called? What will it do differently?

**Visit another section on the Hubble site that you did not already visit.**

22) What section did you visit?

23) Explain what you learned from this section.