

## **Internet Activity: "Mars"**

Astronomy

Name: \_\_\_\_\_

\* Use the following website links to complete the activity.

### **Part I: "Planet Mars: Overview"**

<http://mars.nasa.gov/allaboutmars/facts/>

1. Scroll down to "Learn about Mars Facts with Pictures." The combined \_\_\_\_\_ area on Earth is similar to that of Mars. Sketch and label below the relative sizes of the Earth, Mars & the Moon.

2. What is the mass (or the amount of matter) of Mars compared to Earth?

Why are scientists not sure about the structure/interior of Mars?

3. What is the average distance of Mars from the Sun (in A.U.'s or astronomical units)?

How fast does Mars travel around the Sun? How is this speed compared to Earth's revolution around the Sun?

What is the length of a Martian day & year (in Earth days)?

How does the Martian seasons compare to Earth's seasons?

4. Compare the atmosphere's of both Earth & Mars. List the composition of each atmosphere.

Could you breathe the air on Mars? Explain what would happen if you were on Mars [without a spacesuit](#).

5. What is Mars' surface temperature range?

What is the average temperature on Mars?

6. Compare the [mass and gravity](#) of Mars to Earth.

How much would you weigh on Mars if you weighed 100 pounds on Earth?

How high could you [jump on Mars](#) (watch the short video)?

7. What may have happened to the once-thick [Martian atmosphere](#)?

<http://science.time.com/2013/07/23/revealed-how-mars-lost-its-atmosphere/>

8. Describe the [surface features](#) on Mars.

<http://csep10.phys.utk.edu/astr161/lect/mars/surface.html>

What is the difference between Martian volcanoes and Earth volcanos?

Why are the volcanoes on Mars so large?

9. Why is Mars called the "[Red Planet](#) (or why is Mars red)?"

<http://www.space.com/47-mars-the-red-planet-fourth-planet-from-the-sun.html>

Describe "Olympus Mons" and how it compares to Earth's Mt. Everest.

**Part II: [Mars History & Exploration](#)**

[http://en.wikipedia.org/wiki/History\\_of\\_Mars\\_observation](http://en.wikipedia.org/wiki/History_of_Mars_observation)

1. Who first made recorded observations of Mars and when did this occur?

Who made the first telescopic observation of Mars and when?

2. Explain Mars' apparent or "retrograde" motion in the night sky.

What are the names of Mars' moons & who discovered them in 1877?

3. What did the so-called "[canals on Mars](#)" turn out to actually be?

[http://en.wikipedia.org/wiki/Martian\\_canal](http://en.wikipedia.org/wiki/Martian_canal)

How did astronomers eventually figure out that Mars had no canals?

The "[Face on Mars](#)" was discovered by the \_\_\_\_\_ spacecraft in 1976 and turned out to be another \_\_\_\_\_ illusion.

4. The [first spacecraft](#) to successfully return up-close photos of the Martian surface was the \_\_\_\_\_.

The first spacecraft to land on the surface of Mars and take soil samples were the \_\_\_\_\_ landers.

5. What happened to the [water on Mars](#)?

<http://www.space.com/17048-water-on-mars.html>

How much water would cover the surface of Mars if both ice caps completely melted?

6. Describe what Mars may have been like billions of years ago.

7. List the [latest findings or discoveries](#) of the Mars rover Curiosity mission.

[http://www.nasa.gov/mission\\_pages/msl/](http://www.nasa.gov/mission_pages/msl/)

List some of the [previous discoveries](#) that were made by the Curiosity rover.

8. Could [Mars still have life](#) on or just under its surface? Explain.

<http://science.time.com/2013/09/19/enough-already-does-mars-have-life-or-not/>

9. List four future NASA/ESA [robotic missions to Mars](#) and briefly explain the purpose of each mission and launch date. <http://mars.jpl.nasa.gov/programmissions/missions/future/>

10. Complete the [Mars interactive quiz](#). “Dark \_\_\_\_\_ across the surface” indicates “areas of \_\_\_\_\_ erosion.”

<http://www.enchantedlearning.com/subjects/astronomy/activities/radiobuttonquiz/Marspz.shtml>