



BLUE MARBLE MATCHES

Background Information Outline and Notes

Read the information on pages 3-5 and fill out the outline below to record important information. Answer the questions below to help summarize the information.

Defining Characteristics of Geologic Features

1. *TRUE OR FALSE (circle one)*

It is important for scientists to create identification criteria of features so they can compare geologic features on Earth to features being observed on other planets.

2. List 5 useful descriptor characteristics often used by scientists to describe geologic features in images.

a. _____

b. _____

c. _____

d. _____

e. _____

3. The same geologic feature may not always look exactly alike, but they will have common _____ which help identify those features in different images.

4. List other important information, details or questions about this section in the space below:



System Science

- List the letter that best matches the appropriate Earth system with the associated description:

_____ Biosphere	a. Water in solid and liquid states
_____ Atmosphere	b. Rocks, soils, sediment, surface landforms and geologic processes
_____ Litho/Geosphere	c. Related to living systems or life
_____ Hydrosphere	d. Mixture of gases and small particles above and surrounding the planet
- What other term can be used to describe rocky bodies in our solar system?
- The Blue Marble Matches activity will focus on geologic features which are part of which Earth system?

Earth Processes and Geologic Features

- Aeolian processes are related to effects of the _____.
- What must a planetary body have in order to have aeolian processes?
- Features created by a meteor striking the surface are created by _____ processes.
- The thickness of a planet's _____ can play a role in the size and number of impactors that strike the surface.
- _____ processes are associated with flowing water.
- To have water flowing on the surface of a planet, there needs to be a balance between _____ pressure and temperature.
- A planet with a hot interior will likely have features on the surface related to _____ processes.



8. Match the letter of the definition that best matches the following features:

FEATURES:

- | | | |
|---------------------|-------------------------------|-------------------------|
| _____ Sand Dune | _____ Wind Streak | _____ Yardang |
| _____ Channel | _____ Valley/Drainage network | _____ Delta |
| _____ Volcano | _____ Central Vent/Caldera | _____ Volcanic Deposits |
| _____ Impact Crater | | |

DEFINITIONS:

- A. A hole in the ground created by a meteor striking the surface.
- B. A ridge created by sand being blasted against a rock, eroding it.
- C. Sediment build-up where a river flows into another body of water.
- D. A raised structure through which molten rock is pushed up and out onto the surface.
- E. A set of channels
- F. Windblown piles of sand.
- G. A single feature created by water flowing across the land.
- H. A feature created when wind blows sand or dust off (or onto) the surface.
- I. The top center circular part of a volcano where lava can erupt from.
- J. Material that comes out of a volcano and flows onto the surface.

9. List other important information, details or questions from these two sections in the space below:



PLANETARY COMPARISONS

1. Using what is known about the formation of features on Earth to better understand other planetary bodies in the Solar System is called what type of science?

2. List 5 pieces of useful information that allow scientists to have supporting evidence to better figure out and draw conclusions about other planetary bodies.
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

3. Planetary comparisons help scientists better understand the history of other planets and the processes that _____ their surface.

4. *TRUE OR FALSE (circle one)*
With science, you are constantly building knowledge to help better understand how something may work.

5. List other important information, details or questions in the space below: