

NAME: _____ DATE: _____

CLASS: _____ TEACHER: _____

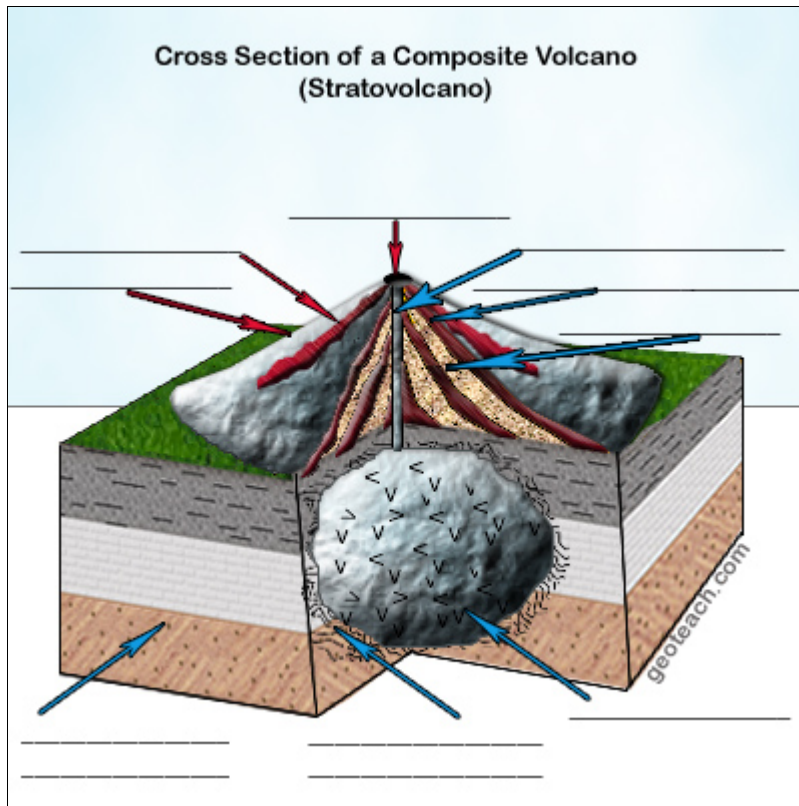
Anatomy of a Volcano

Earth Science Student Assignment - Printable Worksheet

This worksheet was meant to accompany the lesson: **Anatomy of a Volcano.**

Directions Part 1: Label the Stratovolcano cross-section below placing the correct term on the line corresponding to the volcanic feature that the arrow is pointing to. Use the following vocabulary in your diagram.

Volcano Volcanic Conduit Magma Chamber Lava Flows Solidified Lava Flows
Pyroclastics Sedimentary Bedrock Crater Contact Metamorphism



Directions Part 2: Answer the following questions pertaining to volcanoes and place your answers on the lines provided.

1- What is the difference between magma and lava?

2- What is the difference between molten rock and solidified rock?

3- For each of the 3 volcano types listed below, fill in the blanks briefly describing the general appearance, gaseous content and explosivity level of each.

Stratovolcano:

General Appearance:

Gas Content: _____

Explosivity Level: _____

Shield Volcano:

General Appearance:

Gas Content: _____

Explosivity Level: _____

Cinder Cone:

General Appearance:

Gas Content: _____

Explosivity Level: _____

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4- What is a *lahar*?

5- What is a *nuée ardente* (glowing cloud)?

6a- Of the 3 volcano types (stratovolcano, shield and cinder cone), which one would tend to be the most destructive to life and property?

6b- Give a reason for your answer to number 6a.

7- What is the relationship between the silica (quartz) content in a magma or lava and the tendency for an eruption to be more explosive?

8- A high silica content renders magma and lava more *viscous*. What is meant by the term viscous?

9- Partial Melting of earth's mantle tends to produce a lava flow that is basaltic in nature. Would this be a mafic or felsic lava flow?

10- Melting of what type of rock material would produce a more granitic, felsic lava flow?

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