



- 12.** What is one reason why crystal symmetry form is not usually useful in identifying a mineral that is part of rock.
- 13.** What two processes generally occur during lithification of sedimentary rocks?
- 14.** On Moh's Hardness Scale, quartz has a hardness of 7 and corundum has a hardness of 9. How could you confirm that a given specimen of corundum is indeed harder than a given specimen of quartz? Be specific in your answer.
- 15.** Briefly explain one reason that the interior of the Earth is hot enough for magma to sometimes form in Earth's crust.
- 16.** Define: mafic
- 17.** Briefly explain one physical or chemical difference between sedimentary clasts deposited in a proximal environment versus a distal environment. Make sure your answer is clear.
- 18.** Name any two common rock forming minerals.
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- 19.** What chemical weathering process is responsible for breaking down most of Earth's rock forming minerals?
- 20.** A metamorphic rock composed entirely of quartz is called what?
- 21.** What is the main difference between plutonic rock forming environments and volcanic rock forming environments?
- 22.** Obsidian generally contains no minerals. Why not?
- 23.** Batholiths, sills and dikes are all examples of what kind of geologic feature?
- 24.** What information can you infer from the *texture* of an igneous rock?
- 25.** Which type of sedimentary rock is particularly susceptible to dissolution by acid rainwater?

Please answer the following questions (5 points each, unless otherwise indicated).

1. List the 8 most abundant elements in Earth's crust on the eight lines below. You may use the chemical abbreviations or the full spellings of the element names, but whichever you use, spelling counts 100%.

_____	_____
_____	_____
_____	_____
_____	_____

2. Starting with a metamorphic rock exposed on the surface of the Earth, list and briefly describe the processes that are absolutely necessary to convert the material in the metamorphic rock into a clastic sedimentary rock.

3. List the five characteristics a material must possess to be considered a mineral:

- A.
- B.
- C.
- D.
- E.

4. On the back of this sheet of paper, briefly explain how the "Greenhouse Effect" keeps the Earth's troposphere warmer than it would be if there were no "Greenhouse gases."