Name _____ Class _____ Date _____

Section 1 Review

Chp 6 pgs. 135-138

SECTION VOCABULARY

Bowen's reaction series the simplified pattern that illustrates the order in which minerals crystallize from cooling magma according to their chemical composition and melting point	**rock cycle** the series of processes in which rock forms, changes from one type to another, is destroyed, and forms again by geological processes

1. **Describe** Bowen's reaction series states that minerals can form from magma in two main ways. What are they?

2. **Apply Concepts** In the space below, describe two paths through the rock cycle that an igneous rock could follow to become a metamorphic rock. Your answer can be a labeled diagram or a written description.

3. **Compare** How is the way an igneous rock forms different from the way a metamorphic rock forms?

4. **Infer** Granite is an igneous rock made up of large crystals of quartz, feldspar, and mica. Basalt is an igneous rock made up of large crystals of olivine, pyroxene, and amphibole. Basalt often forms in a way that produces large cracks in the rock. Which of these rocks is probably most stable at Earth's surface? Explain your answer.

Name _____ Class _____ Date _____

Section 2 Review

Chp 6 pgs 139-144

SECTION VOCABULARY

extrusive igneous rock rock that forms from the cooling and solidification of lava at Earth's surface

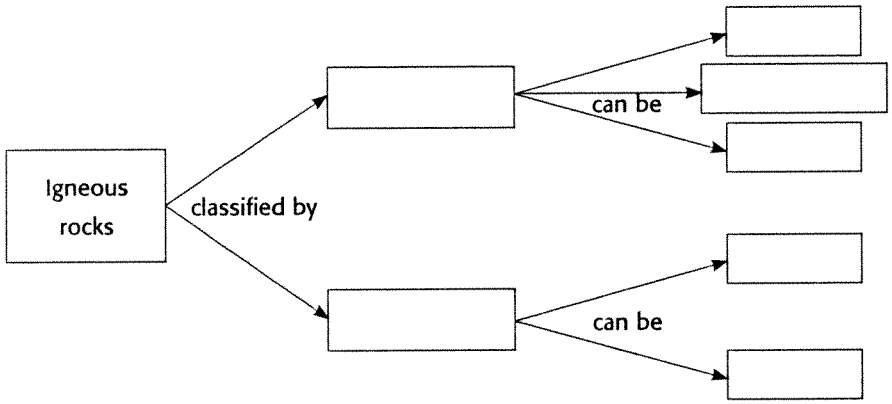
felsic describes magma or igneous rock that is rich in feldspars and silica and that is generally light in color

igneous rock rock that forms when magma cools and solidifies

intrusive igneous rock rock formed from the cooling and solidification of magma beneath Earth's surface

mafic describes magma or igneous rock that is rich in magnesium and iron and that is generally dark in color

1. **Describe** Complete the concept map below to describe how scientists classify igneous rocks. Use the terms *composition*, *texture*, *fine grained*, *coarse grained*, *mafic*, *felsic*, and *intermediate*.



2. **Apply Concepts** Which will probably melt at the lower temperature, a rock that contains fluids and is under low pressure or a rock that does not contain fluids and is under high pressure? Explain your answer.

3. **Compare** Describe two differences between intrusive igneous rocks and extrusive igneous rocks.

4. **Infer** If there were a laccolith below the ground in an area, what might the area look like? Explain your answer.

Name _____ Class _____ Date _____

Section 3 Review

Chp. 6. pgs. 145-150

SECTION VOCABULARY

cementation the process in which minerals precipitate into pore spaces between sediment grains and bind sediments together to form rock

chemical sedimentary rock sedimentary rock that forms when minerals precipitate from a solution or settle from a suspension

clastic sedimentary rock sedimentary rock that forms when fragments of preexisting rocks are compacted or cemented together

compaction the process in which the volume and porosity of a sediment is decreased by the weight of overlying sediments as a result of burial beneath other sediments

organic sedimentary rock sedimentary rock that forms from the remains of plants or animals

1. **Classify** A scientist is studying a sedimentary rock that did not form through compaction and cementation. What kind of sedimentary rock is the scientist studying? Explain your answer.

2. **Identify** List the seven features that sedimentary rocks can have.

3. **Infer** A clastic sedimentary rock is made up of smooth, round sediment pieces that are all about the same size. What can you infer about how the sediment that formed the rock was transported and deposited? Explain your answer.

4. **Synthesize Concepts** Which structure are you more likely to find in an organic sedimentary rock, mud cracks or fossils? Explain your answer.

Name _____ Class _____ Date _____

Section 4 Review Chp 6 pgs. 151-154

SECTION VOCABULARY

contact metamorphism a change in the texture, structure, or chemical composition of a rock due to contact with magma

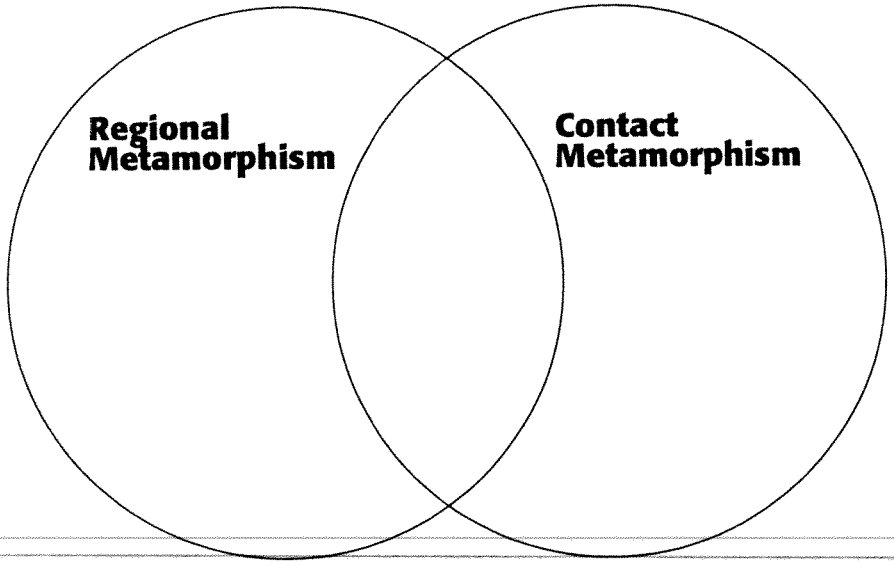
foliation the metamorphic rock texture in which mineral grains are arranged in planes or bands

metamorphism the process in which one type of rock changes into metamorphic rock because of chemical processes or changes in temperature and pressure

nonfoliated the metamorphic rock texture in which mineral grains are not arranged in planes or bands

regional metamorphism a change in the texture, structure, or chemical composition of a rock due to changes in temperature and pressure over a large area, generally as a result of tectonic forces

1. Compare Complete the Venn diagram below to compare regional metamorphism and contact metamorphism.



2. Identify What are three ways a rock can change during metamorphism?

_____

_____

_____

3. Infer The Himalaya Mountains are found where two tectonic plates collide. Does most of the metamorphic rock in that area probably occur in small patches or in wide regions? Explain your answer.

_____

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