

Chapter 3 Rocks

Section 3.4 Metamorphic Rocks

This section discusses the formation and classification of metamorphic rocks.

Reading Strategy

Outlining This outline is a continuation of the outline from Section 3.3. Complete it as you read. Include points about how each of these rocks forms, some of the characteristics of each rock type, and some examples of each. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

III. Metamorphic Rocks

A. Foliated Rocks

1. _____

2. _____

B. Nonfoliated Rocks

1. _____

2. _____

1. Is the following sentence true or false? Metamorphism means "a change in form." _____

Formation of Metamorphic Rocks

Match each description to its term. The terms will be used more than once.

Description	Term
_____ 2. takes place when magma intrudes rock	a. contact metamorphism b. regional metamorphism
_____ 3. produces high-grade metamorphism	
_____ 4. produces low-grade metamorphism	
_____ 5. changes in rock are minor	
_____ 6. results in large-scale deformation	
_____ 7. forms marble	
_____ 8. occurs during mountain building	

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Agents of Metamorphism

9. 🚫 The agents of metamorphism are _____, _____, and _____ solutions.
10. Is the following sentence true or false? During metamorphism, rocks are usually subjected to one agent at a time.

11. Complete the table below.

Agents of Metamorphism	
Cause	Effect
Heat	
Pressure	
Reactions in solution	

Classification of Metamorphic Rocks

12. Circle the letter of each sentence that is true about foliated metamorphic rocks.
- a. It is rock with a layered or banded appearance.
 - b. Pressure can form it.
 - c. Gneiss and marble are examples of it.
 - d. Schist is an example of it.
13. Circle the letter of each sentence that is true about nonfoliated metamorphic rocks.
- a. It is a metamorphic rock that does not have a banded texture.
 - b. Most of it contains several different types of minerals.
 - c. Marble is an example of it.
 - d. Quartzite and anthracite are examples of it.