Teacher Notes
Grades 5–8 Activity 1

A Never-ending Story

NJ Core Curriculum Standards:
- Describe components of a system and how they influence one another. (Science 5.1.4.)
- Describe and explain the causes of the natural processes and events that shaped the earth's surface and interior. (Science 5.10.8.)

GEPA in Science Content/Skill Outlines:
- State and support a conclusion based on data. (5.2.6.7.8.9.10.11—Skill)
- New features on the earth's crust are formed as a result of dynamic forces. (5.10.5.6.7.8.9.10—Knowledge)
- Describe a sequence of events that explains how the earth's surface has been changed over time. (5.10.5.6.7.8.9.10—Skill)

Teacher Background: Read about the three main types of rocks on pages 4–5 of the *New Jersey Rocks and Sediments* booklet.

Materials: Samples 2, 3, 6, 7, 10, 11, and 15 from the New Jersey Rocks and Sediments Kit, sheets of paper

Advance Preparation: Students should be familiar with the rock cycle diagram before starting this activity. This activity can be done individually at a learning center. It may also be done by two groups of students at the same time if one group starts with the rocks listed in step 2 and the other group starts with the rocks listed in step 5.

Directions: Provide each student, or group of students, with a copy of Student Activity Sheet A, the rock cycle diagram on Student Activity Sheet B, and two sheets of paper.

Discussion/Journal Entry Questions:
- How do the rocks in step 2 make a complete loop of the rock cycle? (*Concluding*)
- How do the rocks in step 5 make a complete loop of the rock cycle? (*Concluding*)

Suggested Evaluation: Collect the rock cycle diagrams and assess them for accuracy and completeness. Samples of completed diagrams follow the Student Activity Sheets.

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Name _____ Date _____

Student Activity Sheet A for Activity 1

A NEVER-ENDING STORY

Rocks can be changed in many ways, including by heat, pressure, and chemical reactions. As a matter of fact, rocks are always changing. These changes are called the rock cycle.

1. Look at the rock cycle diagram on Student Activity Sheet B that shows all the ways rocks can change.

2. Use the clues in the table to place the samples of New Jersey quartzite, sandstone, and sand on the diagram.

CLUES		
Rock Name	**Rock Group**	**Formed from:**
Quartzite	metamorphic	quartz
Sandstone	sedimentary	sand
Basalt	igneous	magma
Slate	metamorphic	shale
Shale	sedimentary	clay

3. On a separate sheet of paper, draw a simplified rock cycle. Trace each sample in its correct position. Draw arrows to show how these rocks form one complete loop of the rock cycle. Label all the parts of your diagram.

4. Put the samples back in the kit.

5. Now get the samples of New Jersey basalt, slate, shale, and clay. Using the clues in the table, draw another diagram. Trace each sample in its correct position. Draw arrows to show how these rocks form another complete loop of the rock cycle. Label all the parts of your diagram.

6. Put the samples back in the kit.

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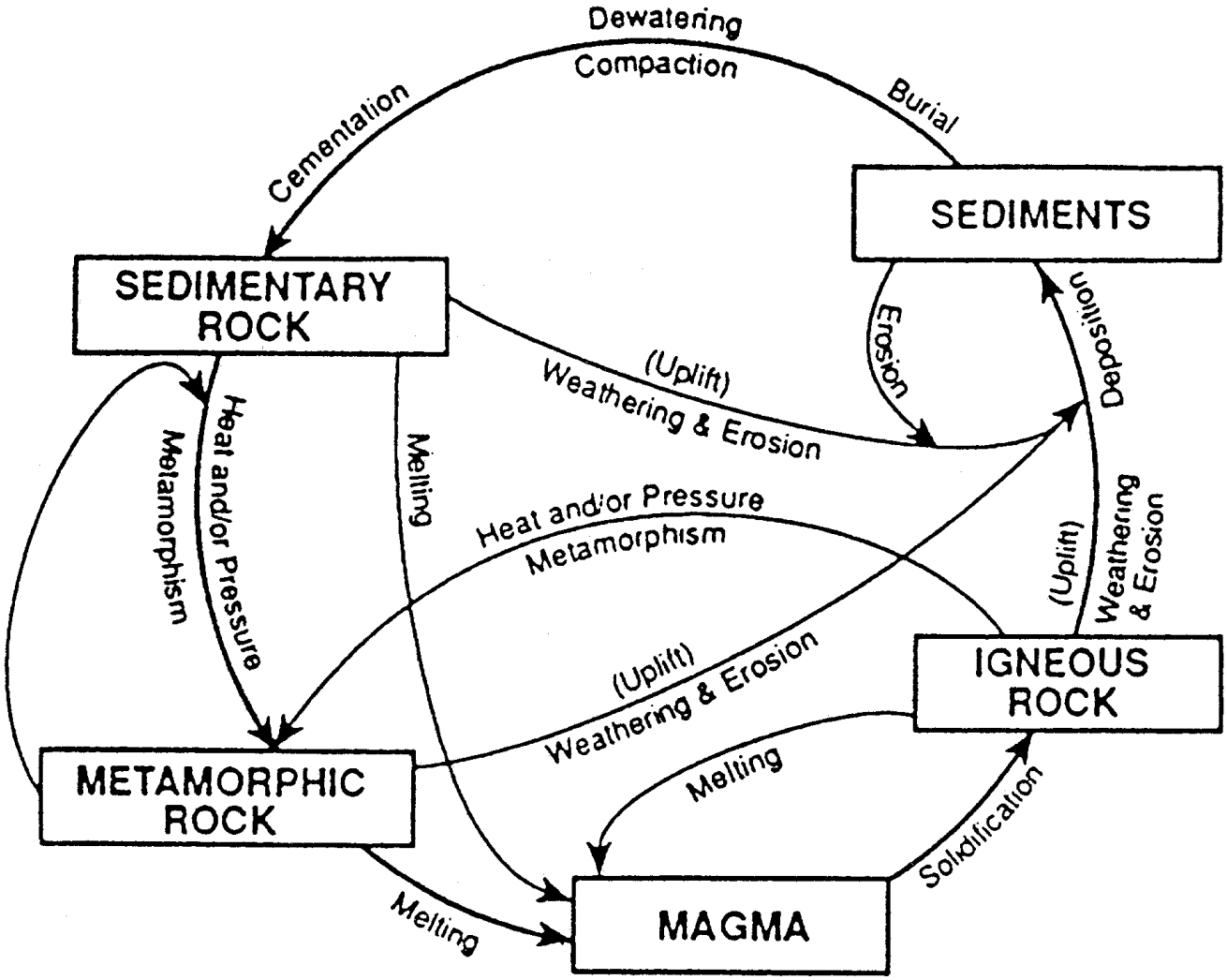
Student Activity Sheet B for Activity 1

A NEVER-ENDING STORY

Rock Cycle in Earth's Crust



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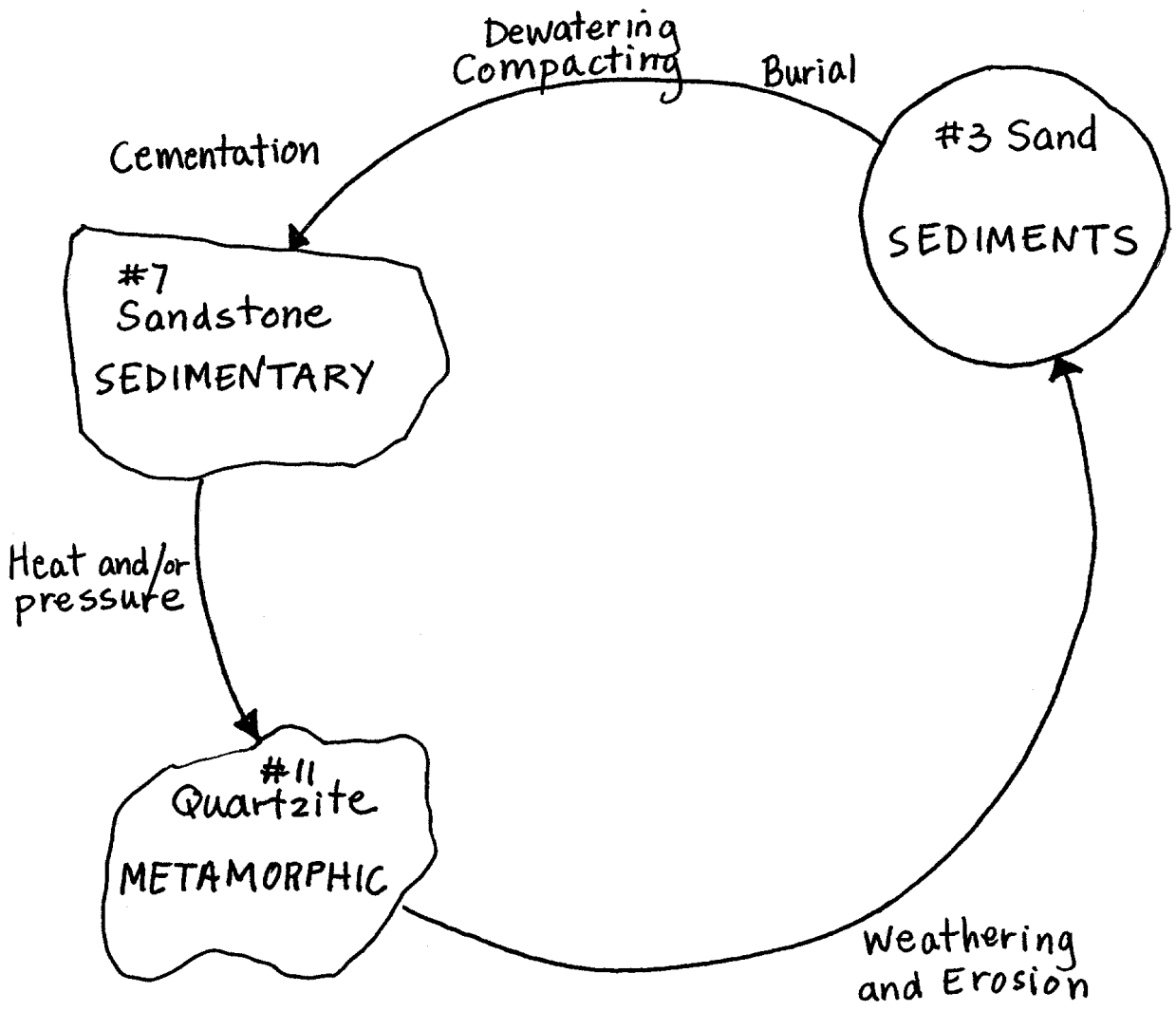
Teacher Notes: Answer to Step 3
Grades 5–8 Activity 1

A Never-ending Story



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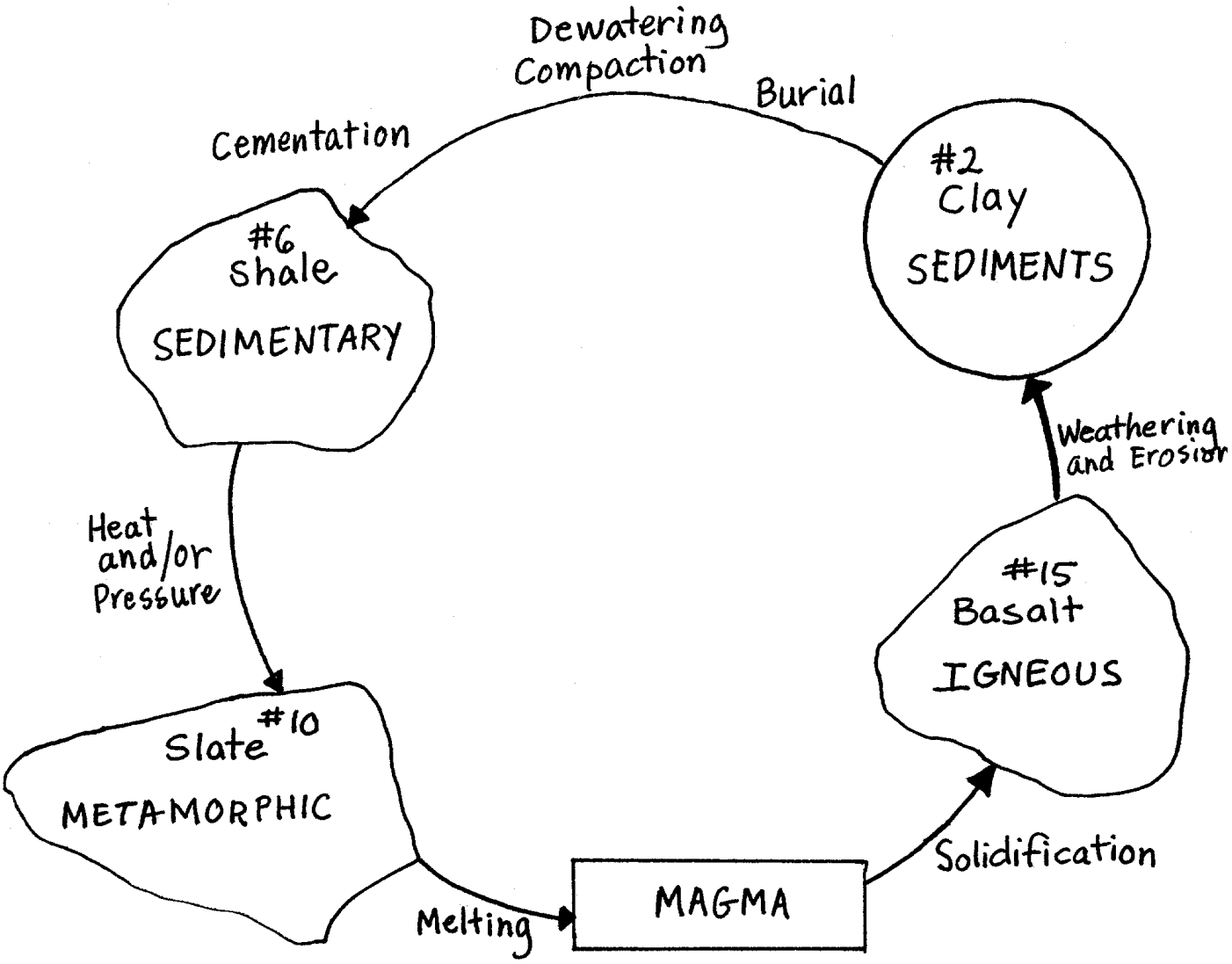
Teacher Notes: Answer to Step 5
Grades 5–8 Activity 1

A Never-ending Story



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