Teacher Notes
Grades 5–8 Activity 6

Rockin' Around New Jersey

NJ Core Curriculum Standards:
- Evaluate the strengths and weaknesses of claims, arguments, and data. (Science 5.2.10.)
- Identify the major features of the earth's crust, the processes and events that change them, and the impact of those changes on people. (Science 5.10.6.)

GEPA in Science Content/Skill Outlines:
- Analyze data by determining patterns or relationships in the data. (5.2.6.7.8.9.10.11—Skills)

Teacher Background: Read about the kinds of rocks found in New Jersey and the different areas they come from on pages 4–5 of the *New Jersey Rocks and Sediments* booklet.

Materials: One or more detailed maps of New Jersey that include counties and municipalities, photocopies of the table on the inside front cover of the *New Jersey Rocks and Sediments* booklet, books containing information about rocks and minerals, relief map of New Jersey

Advance Preparation: Put the cover of the *New Jersey Rocks and Sediments* booklet out of students' sight while they do this activity.

Directions: Many maps have an index to the municipalities with grid coordinates that will help students locate them. Students should use reference materials to find out which specimens are igneous or metamorphic. Have students answer the questions on their Student Activity Sheets before answering the questions below.

Discussion/Journal Entry Questions:
- What are the average differences in elevation of the regions of New Jersey? (*Researching*)
- What relationship can you find between the elevation of the land and the specimens found there? (*Concluding*)
- Where do you think much of southern New Jersey's sands originated? (*Hypothesizing*)

Suggested Evaluation: Students' answers to the questions on the Student Activity Sheets should include the following.

Step 4: The igneous rocks (samples 14 and 15) were collected in the Piedmont region.

Step 5: The metamorphic rocks (samples 10–13) are found in the Highlands, although the quartzite comes from the Valley and Ridge region.

Step 6: Most of the sediments (samples 2–5) are found in the Coastal Plain region. Peat (sample 1) is found in the Valley and Ridge region because it forms in areas where glaciers recently receded.

Name _____ Date _____

Student Activity Sheet A for Activity 6

ROCKIN' AROUND NEW JERSEY

Take a geologic tour of New Jersey and see what's rockin'!

1. Read the table provided by your teacher to find out from what municipality sample 1 was collected. Find the location by using a political map of New Jersey. On Student Activity Sheet B, mark the location on the large outline map of New Jersey. Label it with the number 1.
2. Repeat step 1 for samples 2–17.
3. Using the smaller map as a guide, color each geologic region on the large map.
4. Which samples are igneous? Is there a pattern to where igneous rocks in the kit are found in New Jersey? Explain.

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   _____

5. Which samples are metamorphic? Is there a pattern to where the metamorphic rocks in the kit are found in New Jersey? Explain.

   _____

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6. Which samples are sediments? Is there a pattern to where the sediments in the kit are found in New Jersey? Explain.

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7. Compare your results to those of others. Explain the differences.

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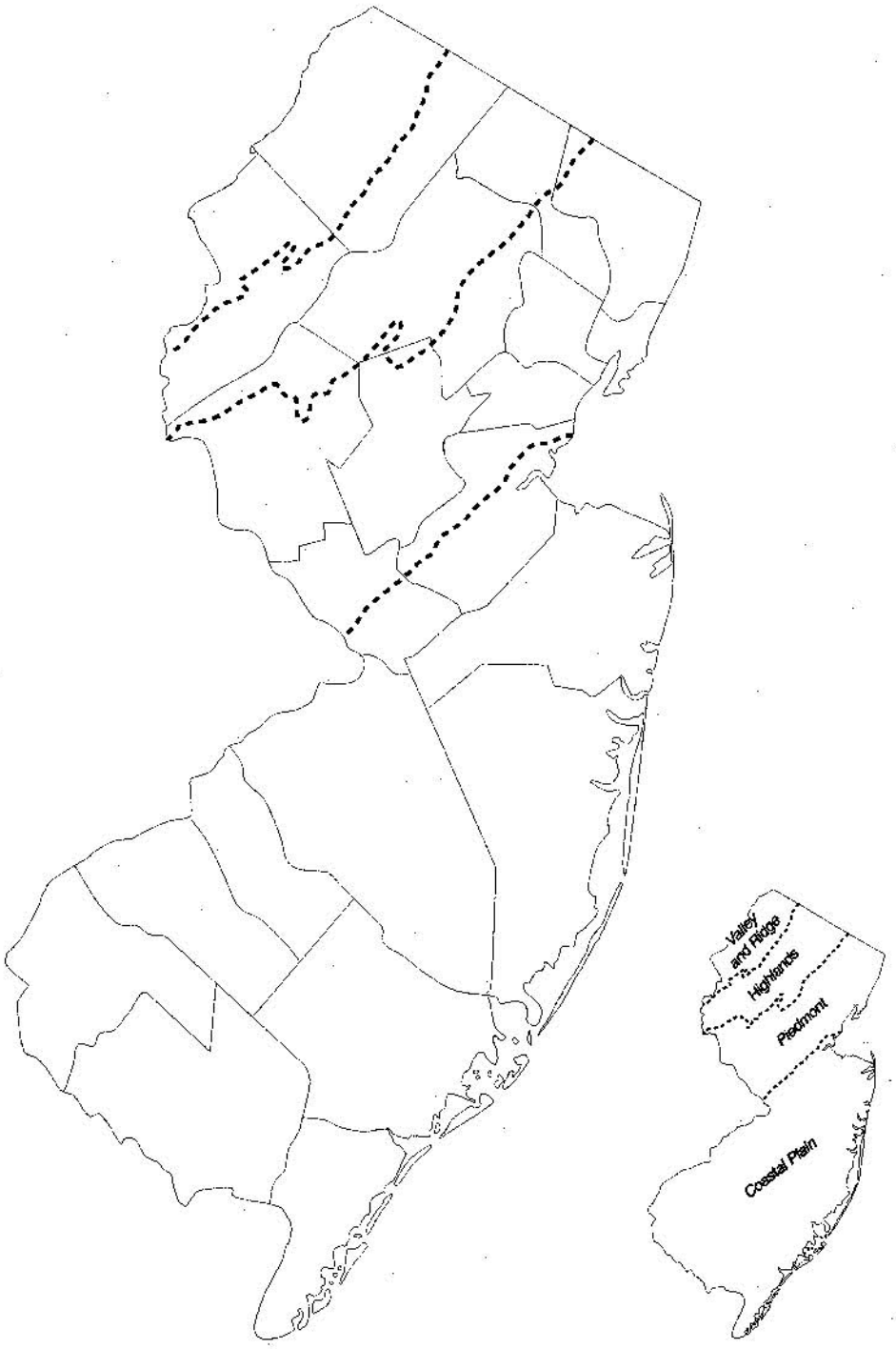
   _____

Name _____ Date _____

Student Activity Sheet B for Activity 6

ROCKIN' AROUND NEW JERSEY