

LESSON PLAN

Subject: Grade 4 Science

Lesson: The Life Cycle of Clay

Standards Addressed:

- Classify rocks as metamorphic, sedimentary, or igneous based on how they are formed. (4.P.2.3)
- Give examples of how the earth changes due to slow processes such as erosion and weathering. (4.E.2.3)

Objectives:

- Students will relate the formation of clay to the formation of sedimentary rocks.
- Students will analyze how erosion and weathering contribute to the process of clay formation.

Materials Needed:

- Device for showing *The Life Cycle of Clay* video
- Life Cycle of Clay activity

Outline:

- Prior to the lesson students should know how to identify metamorphic, igneous and sedimentary rocks.
- Show the video
- Discuss how the video relates to the rock cycle.
- Review the first activity prompt and answer Activity 1 together as a group. Describe how each of the steps leads to the next one.
- Review the second activity prompt and determine if it should be completed together or individually, based on student comprehension.
- Students may complete the final activity independently or with a partner.

Take It Further: There are pieces on the Rock Cycle diagram that are missing. See if the students can catch what is missing or guide them to determine:

What happens to Metamorphic rock when it undergoes weathering and erosion?
And what happens to Sedimentary rocks when they melt?

Cross-Curriculum Connection: Students write a short creative response about being the potter in Old Salem and looking for clay. Where would they go look for clay? Where would there be enough erosion to create small sediments like clay? Near a creek or river? Or out in a field? Have them draw a picture of where they might find their clay.

The Life Cycle of Clay

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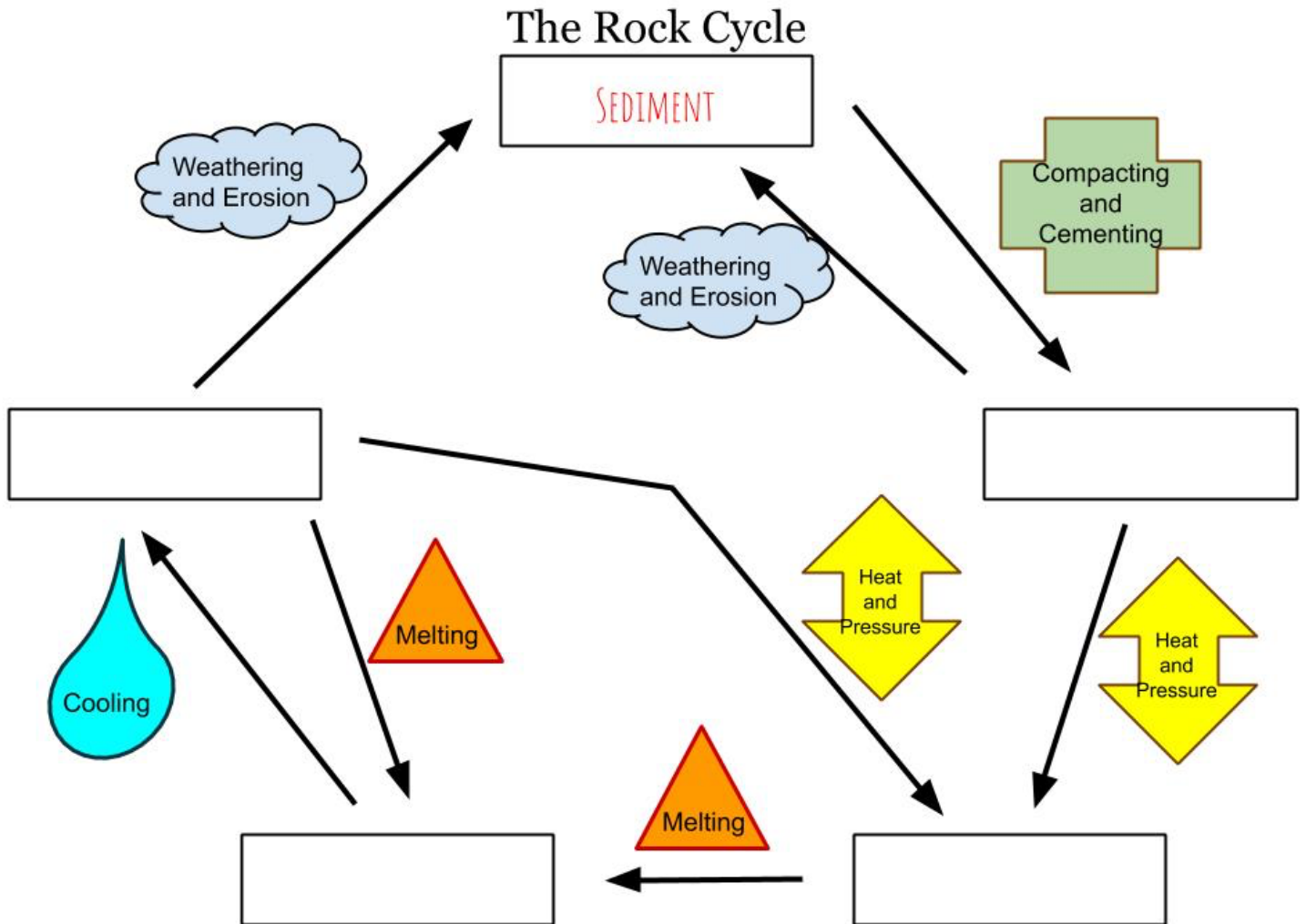
Student Name: _____

Date: _____

Activity 1:

Use the word bank to fill in the empty parts of the rock cycle.

Word Bank:	Sedimentary Rock	Magma
	Igneous Rock	Metamorphic Rock

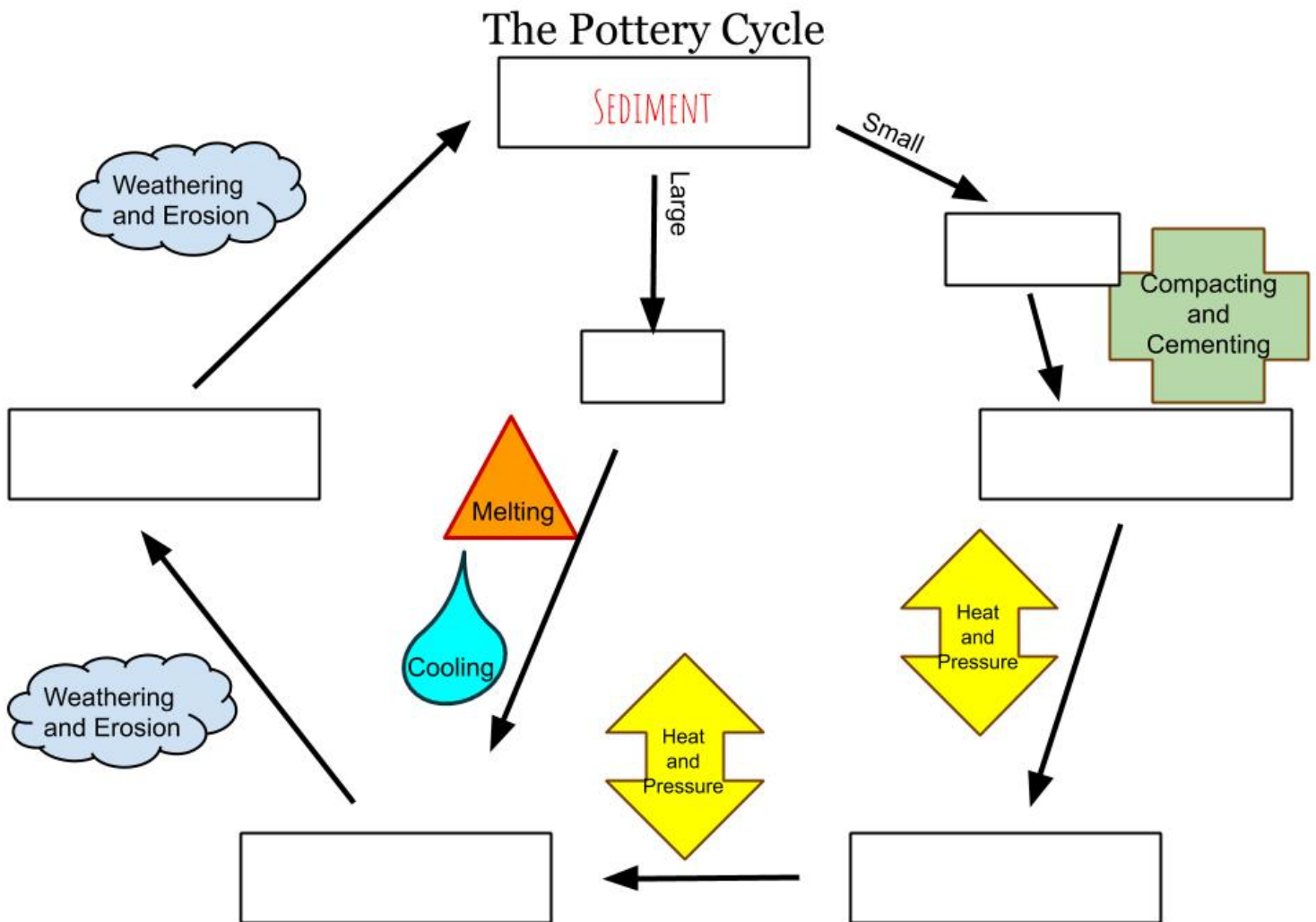


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Activity 2:

Use the word bank to fill in the empty parts of the pottery cycle.

Word Bank:	Broken Pottery	Sand	Dry Pottery
	Hard Pottery	Glazed Pottery	Clay



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Activity 3:

Use the word bank to fill in the chart and see how the pottery cycle and the rock cycle are similar.

Word Bank:	Broken Pottery	Igneous Rocks	Dry Pottery	Sedimentary Rocks
	Hard Pottery	Glazed Pottery	Metamorphic Rocks	Sediment

	Rock Cycle	Pottery Cycle
When loose sediment (like clay) compacts and cements, it creates _____.		
When heat and pressure are applied, other rocks and pottery pieces become _____.		
When sand or rocks melt into magma and then cool, they become _____.		
Weathering and erosion can break broken pieces down into _____.		
What is your favorite part of the rock cycle and the pottery cycle?		

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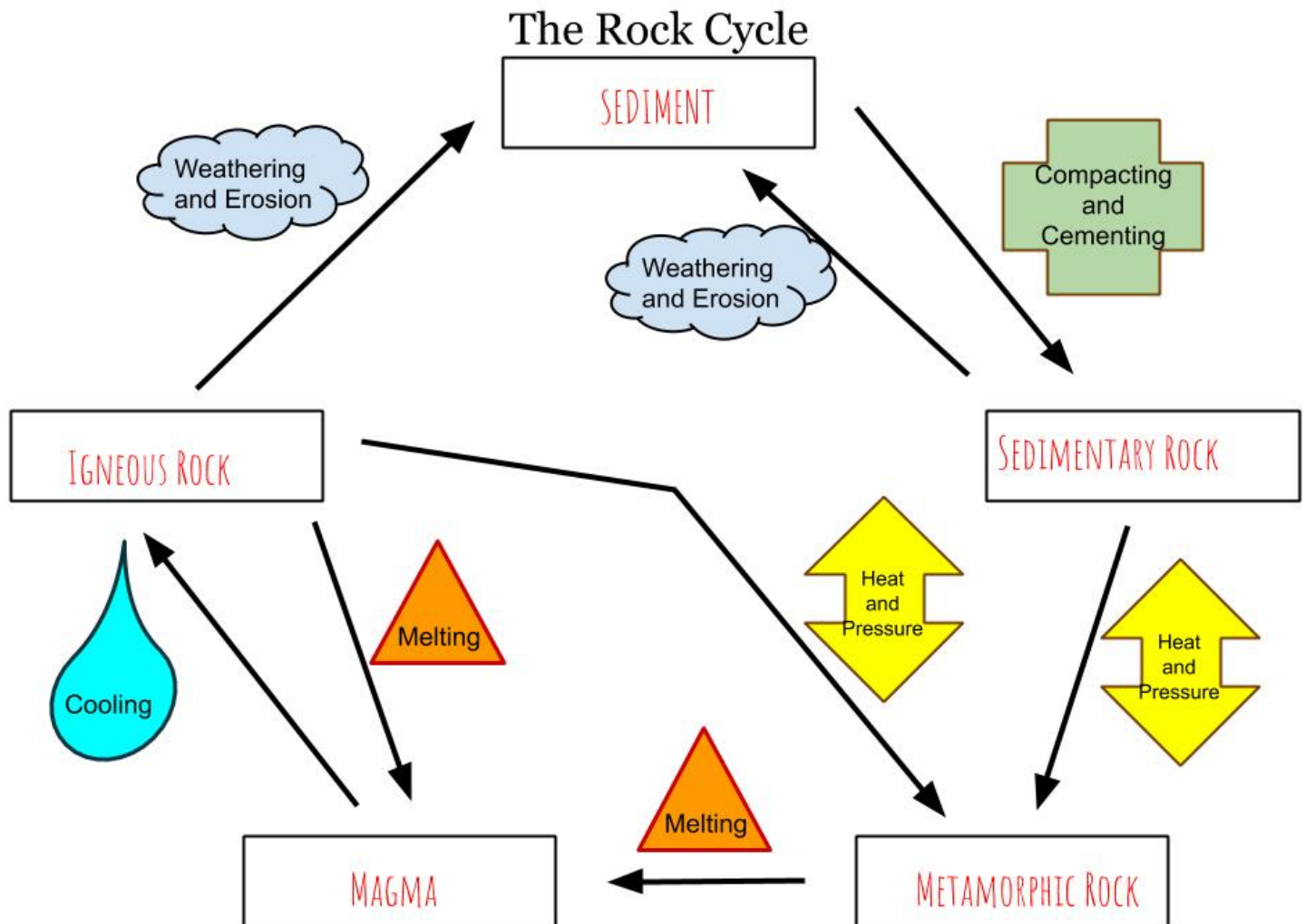
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ANSWER KEY

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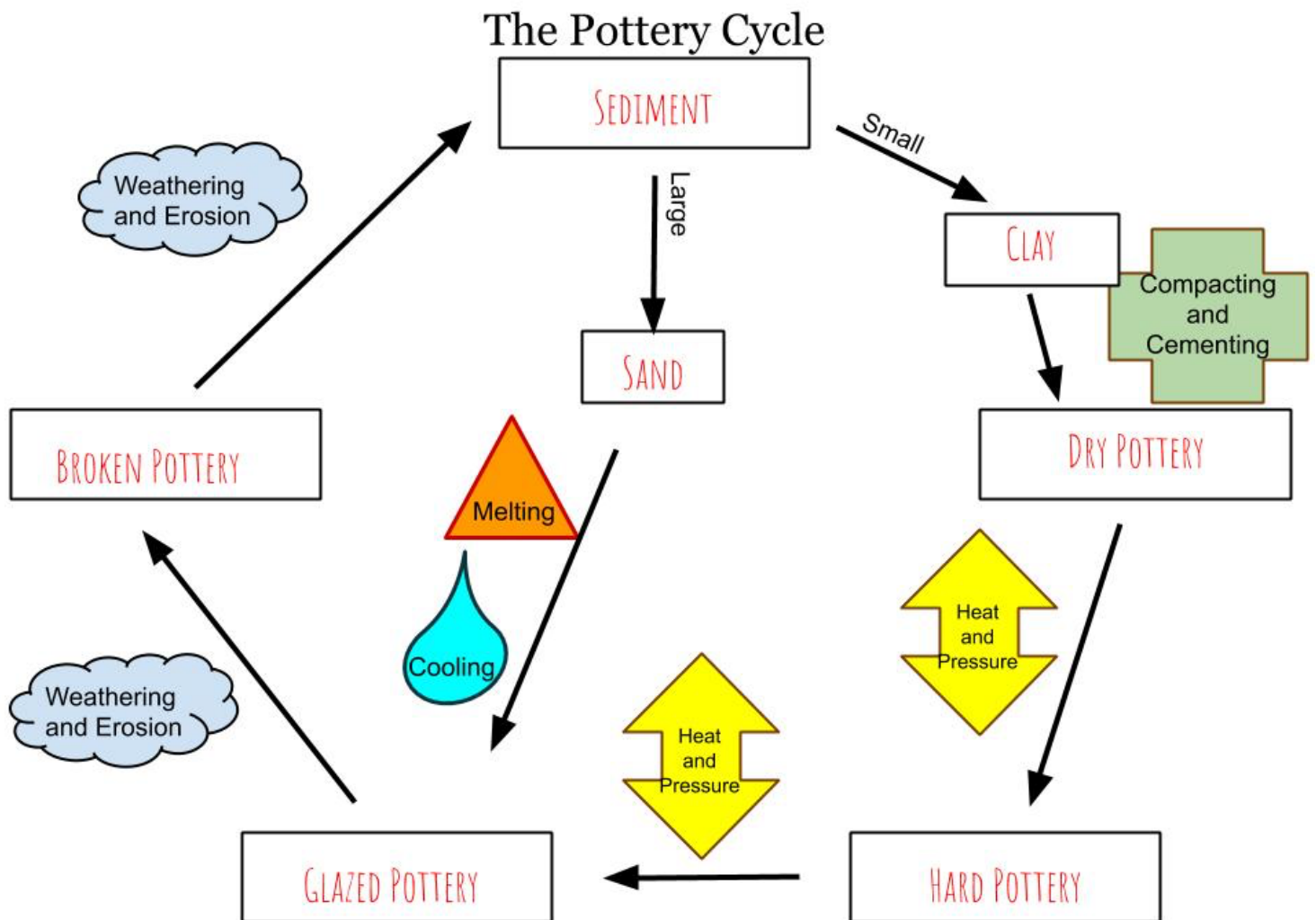
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ANSWER KEY

Activity 2:

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	Rock Cycle	Pottery Cycle
When loose sediment (like clay) compacts and cements, it creates _____.	Sedimentary Rocks	Dry Pottery
When heat and pressure are applied, other rocks and pottery pieces become _____.	Metamorphic Rocks	Hard Pottery
When sand or rocks melt into magma and then cool, they become _____.	Igneous Rocks	Glazed Pottery
Weathering and erosion can break down broken pieces of rock or pottery into _____.	Sediment	Sediment
What is your favorite part of the rock cycle and the pottery cycle?		