

Rock Cycle Model (Cut and Paste)
follow-up to Crayon Lab demonstration

Target	1	2 (all of 1 plus)	3 (all of 2 plus)	4 (all of 3 plus)
LE 5.7 Preparedness	Does not complete formative or summative in an effortful and timely manner, is not engaged, does not arrive on time with class materials ready to learn, does not communicate when issues arise	Completes formative or summative in an effortful or timely manner, is sometimes engaged, sometimes arrives on time with class materials ready to learn, sometimes communicates when issues arise	Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise	Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise, and is reflective on strengths and challenges within your preparedness skill
LE 5.6 Precision	Recognizes the importance of products that are planned, edited, and completed with care	Attempts products that are planned, edited, and completed with care	Creates products that are planned, edited, and completed with minimal errors	Creates products that are planned, edited, and completed free from errors or need for revision
Geo 1	I can list the 3 major types of rocks.	I can explain the processes which lead to the formation of each of the 3 major types of rocks.	I can describe the 3 major rock types found in Earth's crust based on how they were formed.	I can explain how the characteristics of the 3 major types of rocks are the result of the processes which led to their formation.
Geo 2	I can create a diagram of the rock cycle that shows how rocks are transformed between the 3 major types	I can explain how weathering, erosion, and Earth's hot interior cause changes to rocks.	I can create a diagram of the rock cycle that includes connections to weathering & erosion, and Earth's hot interior.	can explain how the rock cycle is connected to the water cycle, and how the properties of water allow it to have an effect on rocks.
MP1 Geosphere	I can define the processes that create, alter and/or destroy rock formations	(all of 1 plus) I can explain the processes that create, alter and/or destroy rock formations	(all of 2 plus) I can interpret evidence of the past and current movement of crust to explain ages and structures of rock formations	(all of 3 plus) nailed it!

1. What type of rock would a new crayon represent? (*See information after steps 2 - 7 from the Crayon Lab demo to help...*)

As you answer 2-4, don't get caught up in the steps of the lab.... think outside the lab procedure.

2. With respect to the scraping,
 - a. What action does the **scraping** represent (*this is a repeat question*)?
 - b. The action done by the **scraper(s)** in this model could be done on which type(s) of rock? Igneous, Metamorphic, Sedimentary? Explain your answer.
 - c. Identify (at least) 3 real world environmental processes that would cause what is being represented by the scraper. Be specific.
3. The action done by the **heating and pressure** in step 11 could be done on which type(s) of rock? Igneous, Metamorphic, Sedimentary? Explain your answer.
4. The action done by the **melting** in step 14 could be done on which type(s) of rock? Igneous, Metamorphic, Sedimentary? Explain your answer.

(over)

5. Using your knowledge gained from this exercise, create a paper model of the rock cycle.
 - a. Cut out the pictures.
 - b. Organize them onto a piece of construction paper such that the images of the types of rocks and processes represent the transformations rocks undergo to become different types of rocks.

NOTE... 1. there are cycles within cycles
2. pay attention to your answers above (Q 2-4) and in the body of the procedure for the Crayon Lab demo
 - c. Once you are "happy" with your cycle(s), tape the images and labels onto the paper backing.
 - d. Complete your diagram by drawing arrows - in the correct direction - between the different elements in the cycle.
 - e. Write your name onto your diagram.