**How are Rocks Classified Virtual Lab NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Introduction Pre-Lab Video Fill in Notes:**

Igneous rocks are formed when \_\_\_\_\_\_\_ cools below or \_\_\_\_\_\_\_\_ cools on Earth’s surface. Igneous rocks often have a \_\_\_\_\_\_\_ appearance or have \_\_\_\_\_\_ in their surfaces through which gases have escaped or look as if \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ have grown together.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks are formed when rocks beneath Earth’s surface are subjected to large amount of \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks often look as if minerals within the rock have been realigned into \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ or as if the composition of mineral \_\_\_\_\_\_\_\_\_\_\_ has changed to form new or larger \_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks are formed when loose materials called \_\_\_\_\_\_\_\_\_\_\_\_\_ accumulate or bonded together by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks may look as if sediments like pieces of \_\_\_\_\_\_\_\_\_\_ or pieces of rocks have been cemented together.

\*\*\*\*\*Go to the link below to access the Rock Lab. \*\*\*\*\*

<http://www.glencoe.com/sites/common_assets/science/virtual_labs/ES04/ES04.html>

**Procedure:**

Once you have opened the laboratory link above, you will see a tray of rock samples.

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| --- | --- | --- | --- | --- |
| 11 | 12 | 13 | 14 | 15 |
| 6 | 7 | 8 | 9 | 10 |
| 1 | 2 | 3 | 4 | 5 |

1. Select a rock sample from the tray. See the numbers in the chart that I have assigned to each rock sample. Write the rock sample number on your data table.
2. Drag the rock sample to the test plate.
3. Drag the magnifying glass over the rock sample to make an up-close observation to determine whether it is igneous, metamorphic, or sedimentary. Review the video notes to help you.
4. Take the rock to the appropriate Rock Testing Lab by clicking the door you want to enter. Only the door to the correct lab will open.
	1. Igneous Rock Testing Room: Drag the magnifying glass over the rock sample to get a close-up view. Click the posters on the wall to get specific information about igneous rocks. Use the left and right arrows to page through the information on the poster.
	2. Metamorphic Rock Testing Lab Room: Drag the magnifying glass over the rock sample to get a close-up view. Click the posters on the wall to get specific information about metamorphic rocks. Use the left and right arrows to page through the information on the poster. Remove the magnifying glass from the rock sample. Drag the rock sample over a piece of glass.
	3. Sedimentary Rock Testing Lab Room: Drag the magnifying glass over the rock sample to get a close-up view. Click the posters on the wall to get specific information about sedimentary rocks. Use the left and right arrows to page through the information on the poster. Then click the 5% HCl Solution bottle to place a drop of HCl on the rock sample. If no reaction occurs after the hydrochloric acid is dropper on the rock, the results is negative.
5. Before you leave the Testing Lab Room, record your observations made about your rock sample. Use the Rock Table provided and determine the identity of the mystery rock.
6. To leave the Testing Lab Room click on the door to return to the Main Lab. Click the arrow on the front of the test plate. Select the name of the mystery rock. Click and Check.
	1. If you got the name correct, put the rock sample back in the tray and select a new rock sample to test.
	2. If you did not get the correct name, redo the test and check your answer again.
7. Continue testing rock samples until you have tested 10 of the 15 samples available.

**ROCK VIRTUAL LAB STUDENT DATA SHEET**

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| **ROCK TYPE****Circle One** | **ROCK #\_\_\_\_\_\_ ROCK SAMPLE NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| After selecting the rock type fill out information you find out in the Testing Room |
| **IGNEOUS** | COLOR:GRAIN SIZE: |
| **METAMORPHIC**Circle answers | BANDING: YES or NORECRYSTALLIZATION: YES or NOHARDNESS TEST scratch glass YES or NO |
| **SEDIMENTARY** | SIZE: (check one) < 1/16 mm \_\_\_\_\_\_\_\_\_ 1/16 – 2 mm \_\_\_\_\_\_\_ >2 mm \_\_\_\_\_\_\_\_\_\_\_\_ACID TEST: Does it Fizz? YES or NO |

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**FOLLOW-UP QUESTIONS:**

1. For each rock sample you tested, how did you decide which testing lab to use?
2. What observations did you make about your rock samples?
3. How did you identify your rock’s identity?
4. When you find a rock on your own, what steps can you take to identify it?