

Name _____

Exploring New York State Rock Types

Today you will be exploring the three rock types we have been learning about (igneous, sedimentary, and metamorphic), where you would find each rock type in NYS, and what general landscape features do you find in those areas. You'll also be referencing the rock charts in your ESRT.

Procedure

1. Login to the Earth Science Google Classroom homepage. There you will find a link to the map used in this activity "Exploring New York State Rock Types". If you cannot find it, you may also type in the link directly:
<http://arcg.is/2bxKLcW>
2. Wait until your page is fully loaded before you explore- you should see 3 main colors over New York State: green, red, and purple. Practice zooming in and out, and moving the map around. You will find that it will take a few seconds for the colors to re-appear when you zoom in or out.
3. On the left side of the screen you will see a **Legend**, Record the rock types for each color below:

Red: _____

Purple: _____

Orange: _____

Green: _____

4. Which rock type is most common in NYS? _____

IGNEOUS

5. There are two different types of Igneous Rock shown on the map: **Plutonic** and **Volcanic**. **What is the difference?** (You may want to use your ESRT to help you answer this question)

6. What type of Igneous Rocks are located in NYS: **PLUTONIC** or **VOLCANIC** (circle one)

7. Click anywhere in the purple shaded area. A pop up will come up and show you that it is Igneous Plutonic. Click on More info to see pictures of examples.

8. The picture shows you the difference between Volcanic and Plutonic.

Use the following terms to fill in the spaces to describe Volcanic and Plutonic igneous rocks:

Intrusive, Extrusive, Surface Cooled, Underground Cooled, Large Crystals, Small Crystals, Cools fast (slow term cooling), Cools Slow (long term cooling)

<u>Volcanic</u>	<u>Plutonic</u>

9. Look at the area where you would find igneous rocks in NYS. What type of landscape features do you see there? _____

10. Zoom out... Where on the map can you find **VOLCANIC** igneous rocks? (Name one location)

SEDIMENTARY

11. Click anywhere in the green shaded area. A pop up will come up and show you that it represents Sedimentary. Click on More info to see pictures of examples.
12. Choose 3 sedimentary rocks from the pictures: 1 rock from weathered rock, 1 rock from plants or animals, and 1 from evaporating water. Fill in the chart with the name, AND, using the pictures and/or ESRT, list one characteristic for each rock.

Origin	Name of Sedimentary Rock	Characteristic from pictures or ESRT
weathered rocks		
Plants or animals		
Evaporating water		

13. How are sedimentary made from weathered rocks formed? You may use your ESRT to help.
14. How are sedimentary made from plants or animals typically formed? You may use your ESRT to help.
15. How are sedimentary made from evaporating water typically formed? You may use your ESRT to help.

METAMORPHIC

16. Click anywhere in the red shaded area. A pop up will come up and show you that it is Metamorphic. Click on More info to see pictures of examples.

17. List at least 4 Metamorphic Rocks and what parent rock it was formed from. Then use your ESRT to list one characteristic of that rock and determine if it is foliated or nonfoliated (place ✓ in the correct box).

Metamorphic Rock	Parent Rock	Characteristic from ESRT	Foliated	Non-Foliated

18. Compare the samples that are foliated vs. non-foliated. How does the appearance of the foliated rocks differ from the non-foliated rocks?