



# Rocks -n- Minerals WebQuest

Rocks and minerals are important because geologists use evidence from them to learn about what the Earth was like in the past. They allow scientists to build an historical record of the planet to learn what events occurred before people lived. During this virtual assignment, you'll need to log notes about your learning. Let's begin the step by step process:

1. Save this document and your progress as you go along. You may type right into the gray text boxes starting at the arrows (>>). Your teacher may ask you to print out this page so you can show what you learned.
2. Begin your tour by discovering how rocks are made. Click Here: [Rock Cycle](#).

Click on "Begin with Types of Rocks". Read over the description of Igneous, Metamorphic and Sedimentary rocks. Then scroll to the bottom and examine the "What to look for" chart.

What are 6 "CLUES" to look for?

1.>>

2.>>

3.>>

4.>>

5.>>

6.>>

3. Then click "Next: Start your collection". Click BEGIN. Click on each of the six rocks to identify them and read a brief description.

Name of Rock	Write <u>Two</u> Facts about this rock!	Igneous, Metamorphic, or Sedimentary? (Do your best to use your knowledge to classify each rock!)

4. Now click "Next: Identify Rock Types" and read the directions for how to play.

Characteristic	Type of Rock (Igneous, Metamorphic, Sedimentary)
>>	>>
>>	>>
>>	>>
>>	>>
>>	>>

5. Now click on the next chapter, titled "How Rocks Change". Read the section on how heat and pressure changes rocks and watch the animation by clicking Start.

Heat and pressure causes >> \_\_\_\_\_ rock to turn into >> \_\_\_\_\_ rock.

6. Click "Next". Read the section on Heating and Cooling. Click on the animation for Melting.

Melting causes >> \_\_\_\_\_ rock to turn into >> \_\_\_\_\_.

7. Click on the animation for Cooling. You may need to replay the animation more than once to answer the following questions.

How does extrusive igneous rock form?

>>

How does intrusive igneous rock form?

>>

Which cools faster? >>

Which has crystals? >>

8. Click "Next". Read the section on Weathering and Erosion and Compacting and Cementing. Watch both animations.

9. Click on "Transform the Rock". Read the directions for how to play and press "Begin".

**IMPORTANT:** Fill out the table below before submitting each answer! The words disappear very quickly!

>>	+	>>	=	>>
>>	+	>>	=	>>

>>	+	>>	=	>>
>>	+	>>	=	>>
>>	+	>>	=	>>
>>	+	>>	=	>>
>>	+	>>	=	>>
>>	+	>>	=	>>
>>	+	>>	=	>>

10. Go onto the Next Chapter. Explore the rock cycle diagram. When ready, click NEXT to "Complete the Cycle!" Read the directions to learn how to play! You do not have to write your answers down, the computer will score you!

11. After completing the diagram you are ready to test your skills! Click Begin!

Final score >> \_\_\_\_ / 15.

12. Go to the following website: [The Learning Zone](#)

Review the Rock cycle and click "Test Yourself Here."

Pick level **ONE**:

A) Best time: >> \_\_\_\_\_

Now try level **TWO**:

B) Best time: >> \_\_\_\_\_

13. Go to the Following Website: [Mineralogy](#)

What item did you pick? >>

What minerals are in this item? >>

In the blue bar on the right, select "Bedroom". Click on one of the items.

Return to the main page. Select "Bathroom". Click on one of the item.

What item did you pick? >>

What minerals are in this item? >>

Return to the main page. Select "Living Room". Click on one of the items.

What item did you pick? >>

What minerals are in this item? >>

Return to the main page. Select "Kitchen". Click on one of the items.

What item did you pick? >>

What minerals are in this item? >>

14. Click on the following link : [Mineral Identification](#)

Click "Play Movie." You can go back and move forward in the movie by clicking on the arrows. Answer the following questions:

A) What should you look at first when looking at minerals? >>

B) What is hardness? >>

C) How hard is a finger nail? >>

D) What is luster? >>

E) If it has a metallic luster the mineral will be >> \_\_\_\_\_

F) The streak is the mineral's >> \_\_\_\_\_ when it powdered or scratched on a surface.

G) Minerals that break on a smooth hard surface have >> \_\_\_\_\_.

H) Fracture is when a mineral breaks >>\_\_\_\_\_.

15. Click on the following link: [Fireworks](#)

1) How many tons of fireworks are used each year? >>

2) What minerals are used to make the following colors or special effects?

a) Bright Greens >>

- b) Silvery White >>
- c) Deep Reds >>
- d) Lavender >>
- e) Blues >>
- f) Yellows >>
- g) Orange >>
- h) Gold Sparks >>
- i) Bright Flashes >>
- j) Silvery-white Flashes >>

16. Click on the following link: [Masterminds](#)

Follow the game's directions! Collect **Three** Minerals.

What is the **first** mineral's:

Streak >>

Luster >>

Hardness >>

Color >>

Crystal Structure >>

What is the mineral's name >>

What is the **second** mineral's:

Streak >>

Luster >>

Hardness >>

Color >>

Crystal Structure >>



What is the mineral's name >>

What is the **third** mineral's:

Streak >>

Luster >>

Hardness >>

Color >>

Crystal Structure >>

What is the mineral's name >>