Year 8 Science
Earth and Space Science
Topic 2, Investigation 1

Name: **Date:**	**Teacher:**	**Score: /17**

Background Information:

Rocks formed from cooling magma are known as igneous rocks. When magma cools and solidifies, particles in the liquid may clump together to form structures called crystals.

The purpose of this investigation is to see how the size of crystals in igneous rocks is affected by the rate of cooling.

1. Write an aim for the investigation

_____

_____

_____

(1 mark)

2. Identify the variables in this investigation:

Independent variable _____

Dependent variable _____

Controlled variables _____

_____

(4 marks)

3. Write a hypothesis for the investigation. It needs to mention the independent and dependent variables.

_____

_____

_____

(2 marks)

4. Use the following method to compile a materials list:

1. Using the pipette, pipette 1mL of heated saturated copper sulfate into one test tube and 1mL into another test tube in a test tube rack
2. Label each test tube with the name of your group
3. Place one test tube in a test tube rack and the other into an ice-filled beaker.
4. Leave the test tubes overnight and observe the results.

Materials:

_____

_____

_____

_____

_____

_____

_____

(3 marks)

Complete the investigation and then continue with the following questions.

5. Fill in the results table

Results table:

Cooling Conditions	**Approximate average size of crystals (mm)**
Fast	
Slow	

(3 marks)

6. List two ways that the accuracy of this experiment be improved

_____

_____

_____

(2 marks)

7. Write a suitable conclusion for this investigation.

_____

_____

_____

(2 marks)

End of Assessment