

Part 1: Candy That Rocks!



Coarse Grained
From The Countertop



Fine Grained
From the Freezer

1. Why did one sugar melt result in a small grain sized crystal, and one melt result in a coarse grain crystal? (Remember the melts were at the same temperature '100°C' to start off with, but did they both follow the same path of cooling?)

<https://www.youtube.com/watch?v=OpTH-KHzZig>

Part 2: How different things cool off:

The Coffee Cooling model



The Igneous Rock Model

(after Mr. May melts the Salol, record some observations and create your own conceptual model of how crystals form in different sizes, and in different conditions. Use the coffee cooling model as inspiration or do it in your own style, be creative)

Observations:

Model:

2. Where would melted rock be insulated (like the thermos) and cool slowly over a long time?
3. Where would melted rock cool quickly? (where would melted rock be spilled out on a surface?)

Part 3: Put your model to work.

For Each Rock in the suite of igneous hand samples use your model, and your knowledge of igneous rock compositions to fill out the chart and identify the igneous rock using the ESRT

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8
Crystal size (Small/Large)								
Environment of Formation (Volcanic/Plutonic)								
Color (Light, Dark, 50-50)								
Rock ID								

You can check if you were correct by looking at the posted solutions

4. How effective was your model in the identification of specific rocks?

5. Which rocks from your suite of samples did not specifically fit in your model? Which of their characteristics complicated their identification?

6. For the rocks listed in your question 5 response, How do you think you could modify your model to include these specific characteristics?

7. Great Job finishing part 3.... Now login to schoology and access the LE4 Cold Brewed Crystal lab 'quiz'. To earn a complete score of 5 on this lab, this must be completed. There are 2 parts and you will have 2 attempts for each part.