

Unit 3 Handout 97

Lesson 11: Investigating Magma and New Landforms

**Purpose:** Model the movement of molten rock through fractures in the lithosphere, over the earth's surface, and under water.

**Guiding Questions:**

- How does molten rock cause and affect landforms?
- How does molten rock respond to environmental factors?

<b>LAB SAFETY</b>
You must wear goggles and an apron during this activity. Follow all procedures as listed on this sheet and as cited in the textbook procedure. Do not touch the hot model magma or handle the beakers in the hot water baths.

**Procedure.**

1. Divide and conquer for getting your lab materials:
  - a. Goggles for each person
  - b. An apron for each person
  - c. Material kit from the back prep table
2. Check the materials in your kit and let Mr. Ower know if you are missing any of these items: plastic spoon, 2 clear plastic containers of soil, 1 clear plastic container of model magma.
3. Follow step 1 on page 143. Discuss the answers to A-C and write down your answer to A in the space provided below: Is the model magma a solid or a liquid? Give two reasons to support your answer.
  
4. Skip steps 2 and 3 on page 143. Follow step 4 on page 143.

Observations of Model Magma	Predictions of Model Magma when it is Heated

5. Read, but do not do, the instructions of step 5 on page 144. After reading, then do step 5 on page 144. Record your observations on page 2 of this handout. Repeat this for step 6: read then do.
6. Read, but do not do, steps 7-10 on page 145 After reading, then do steps 7-10. Record your observations on the back of this sheet.

**Data table.** Use this table to record your observations as required in the procedure. You may find it helpful to make drawings to show what happens with the magma *in addition to* writing your observations.

	<b>Room-Temperature Magma</b>	<b>Hot Magma</b>
General Observations	(See previous page)	
Magma pushed into soil		
Magma pushed further into soil		
Magma draining from soil	<b>Does not apply</b>	