

Procedure

What to do Before Class Begins:

- ◆ Decide if you are going to do a large group demonstration or have the students work independently or in small groups.
- ◆ Collect materials.
- ◆ Make copies of student page Lahar in a Jar.
- ◆ Prepare to show graphics.



Lahar Debris Recipe

Obtain and mix ingredients to the volume proportions shown below. Mix a batch that is sufficient to provide 400 milliliters to each student group. All ingredients should be dry.

Note that while scientists generally measure contents by weight, this activity provides a general conversion from percent weight to volume so that the activity can be conducted with ease in the field or classroom. This method does not account for porosity (air spaces between the particles) of the solids.

Quantities provided make enough lahar material for (10) 400 milliliter experiments. Place the following in a dry 5-gallon bucket or other container:

- ◆ 2.0 L gravel from a driveway (pea to marble-size)
- ◆ 3.0 L sand from a sand box or river bank
- ◆ 2.0 L garden soil (soil with high clay content and minimal organic matter works best. Look for clay loam or silt loam commercially)
- ◆ 0.6 L dry potters clay powder (available from pottery supply stores)