## INSULATING PLAY DOUGH

STEM ME

You will need:

Distilled or regular tap water can be used, but the resistance of the dough will be lower



180G FLOUR



120ML DEIONIZED WATER



200G SUGAR



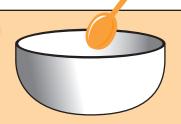
1 TABLESPOON VEGETABLE



OPTIONAL FOOD COLOURING

This project is part 2 of 3 worksheets exploring circuits and electrical conductivity. In the first part we made conductive dough and now we'll make insulating dough. These will lead to creating electrical circuits using them both.

## Method:



Step 1: Set aside 55g of flour to be used later. Mix remaining flour, sugar and oil in a large pot or bowl

## **Insulators**

do not allow electricity to easily pass through them. Resistance is a measurement of how insulating something is. This dough is resistive which means little electricity can flow through it.

Step 3: Turn the dough out on to a sheet tray or a floured countertop, gathering it into a single lump.



Step 2: Mix in a small amount (about 1 tbsp.) of deionized water, stirring until the water is absorbed. Repeat this step until large, sandy lumps begin to form.



## Storage:

keep the dough in a sealed container or bag for several weeks. For longer periods the dough can also be frozen. While in storage, the oil may separate and the dough may lost its dough-like consistency. Simply add additional flour to remove the stickiness before using again.

Step 4: Add small increments of flour or water to give a dough-like, pliable consistency.



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