

INSULATING PLAY DOUGH

You will need:



180G FLOUR

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



120ML DEIONIZED WATER



200G SUGAR



1 TABLESPOON VEGETABLE OIL



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.

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.

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

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

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 lose its dough-like consistency. Simply add additional flour to remove the stickiness before using again.

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.



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