INSULATING PLAY DOUGH

STEM@ HALLOWEEN

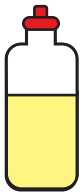
You will need:

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

180G FLOUR


120ML DEIONIZED WATER

200G SUGAR

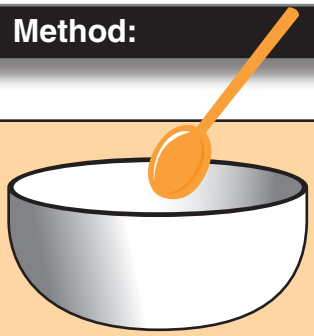

1 TABLESPOON VEGETABLE OIL

Create the dough in Halloween colours!!

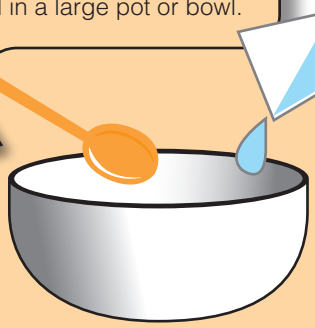

OPTIONAL FOOD COLOURING

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:



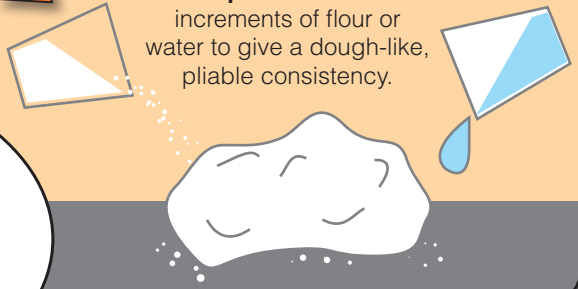
Step 1: Set aside 55g of flour to be used later. Mix remaining flour, sugar and oil in a large pot or bowl.



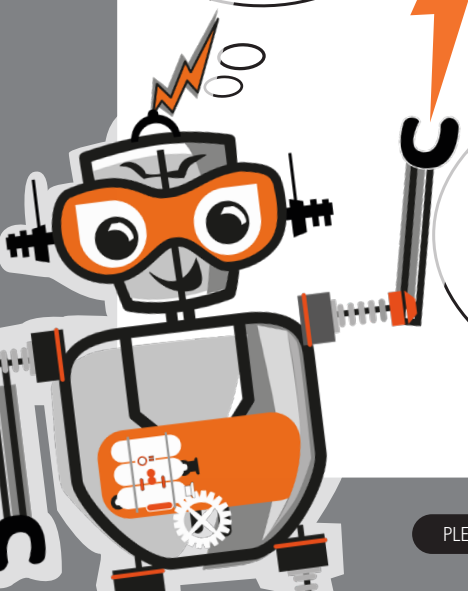
Step 2: Mix in a small amount (about 1 tbsp.) of deionized water, stirring until the water is absorbed. Repeat this step until large, sandy lumps begin to form.

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.



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.



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.

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PLEASE ASK PERMISSION FROM THE HOUSEOWNER BEFORE TAKING PART IN ANY EXPERIMENT AND ASK FOR ADULT SUPERVISION WHERE REQUIRED