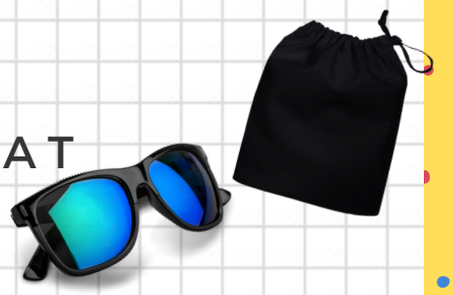
PREPARATION

THEME: SUMMER STEAM

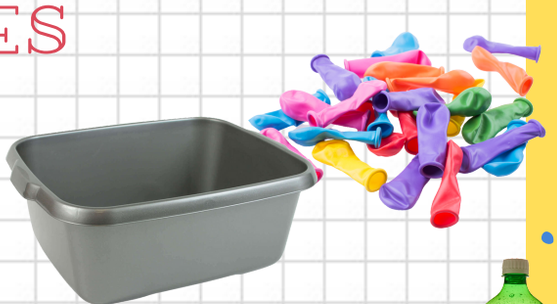
MYSTERY BAG

SUNGLASSES OR SUN HAT

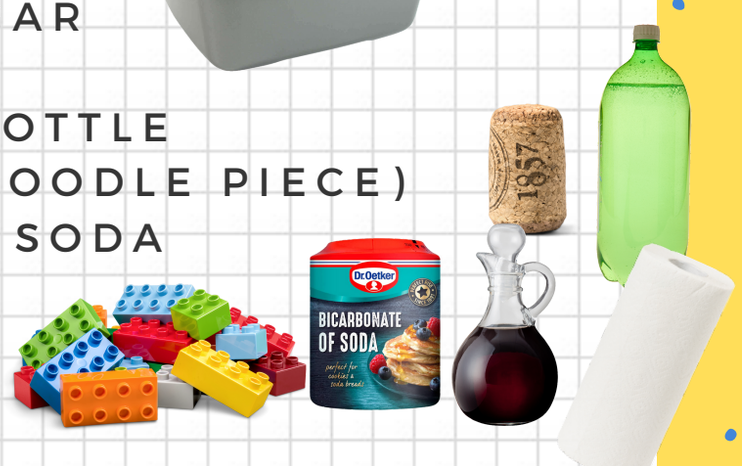


EXPLORATION RESOURCES

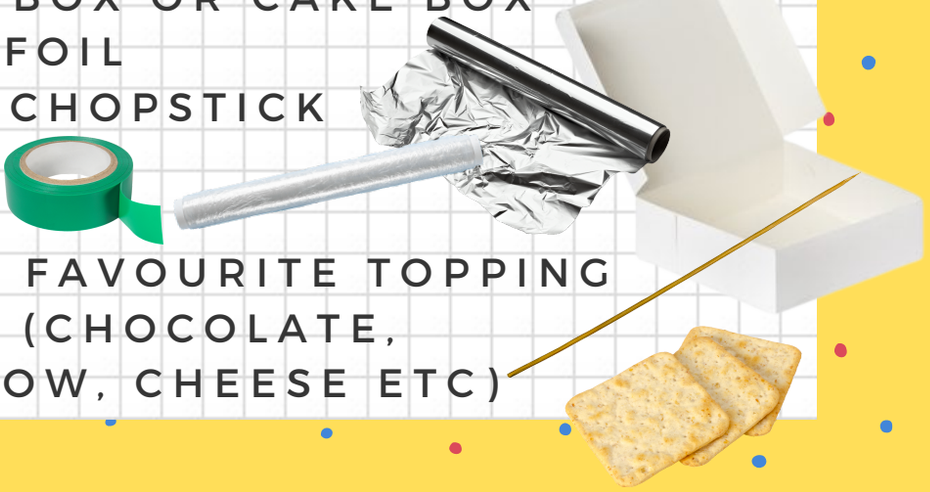
- BALLOONS
- BIG BOWL OF WATER
- SALT AND/OR SUGAR



- 2 LITRE DRINKS BOTTLE
- CORK (OR POOL NOODLE PIECE)
- BICARBONATE OF SODA
- VINEGAR
- KITCHEN ROLL
- LEGO OR DUPLO



- BIG CEREAL BOX OR CAKE BOX
- ALUMINIUM FOIL
- SKEWER OR CHOPSTICK
- CLING FILM
- TAPE
- CRACKERS + FAVOURITE TOPPING THAT MELTS (CHOCOLATE, MARSHMALLOW, CHEESE ETC)



EXPLORATION

THEME: SUMMER STEAM

S Science
T Technology
E Engineering
A Arts
M Maths

Questions/Ideas:

Water Balloons: Do you think the empty balloon will sink or float? What about when it's filled with air? Will a water balloon float or sink? What about when it's full of ice? Let's try water with salt/sugar in - does it float or sink now?

Bottle Rocket Launch Pads: Can we make a launcher just the right size for our bottle? Does it hold the bottle steady?

Bottle Rockets: Measure 2 cups of vinegar into the bottle. Measure 1 tbsp of baking soda into the kitchen roll and wrap it up. Tuck the kitchen roll in the neck of the bottle. Put the cork in tight. What will happen when a grown up tips it up and puts it into the launcher? Why will this happen? Let's observe.

Solar Ovens: Cut an oven door in the box. Cover everything in foil. Why do we use foil? Prop the lid open with the skewer. Put crackers and toppings inside and cover the opening with cling film. Why do we use cling film? Where shall we leave the oven? What do you predict will happen? Compare a cracker not in the oven. Why does it get hotter inside your oven?

Learning:

Science: Floating and sinking; Water density; Dissolving; Predicting and testing; Reactions; Air pressure; Heat reflection; Heat retention; Melting

Technology: Making working ovens for a purpose

Engineering: Building rocket launch pads, Building solar ovens

Arts: Decorating rockets; Rocket launch pads

Maths: Measuring; Time

Little STEAMers