

PREPARATION

THEME: FANTASTIC FIREWORKS

MYSTERY BAG

THE NUMBER 5 (OR SOMETHING WITH 5 ON IT)

EXPLORATION RESOURCES

- WATER
- OIL (VEGETABLE, OLIVE ETC)
- FOOD COLOURING
- ONE STRAW
- PAPER OR THIN CARD
- COLOURED PENCILS/PENS
- TAPE
- DROPPER OR MEDICINE

 SYRINGE OR THICK STRAW

 WITH ONE END SEALED
- SALT (OR SUGAR)
- PVA GLUE
- SHEET OF BLACK CARD/PAPER
- PAINTS AND BRUSHES







EXPLORATION

THEME: FANTASTIC FIREWORKS

S T E A M M Science Technology Engineering Arts Maths

Questions/Ideas:

Fireworks in Water: What will happen when we pour the oil into the water? Why? Let's test. What happens to the food colouring? Why?

Firework Launchers: What will happen when we blow in the straw? Why? What happens if you blow harder/less hard? Let's try blowing it straight across/up? Which way [angle] can you blow it to make it go the furthest? What do you think would happen if we made the straw longer/shorter? Let's try.

Salt Painting: What shape shall we make the glue? What will happen when we put the salt on? How long do you think it will take to dry? Let's wait and see. What colours shall we paint our fireworks?

Learning:

<u>Science</u>: Oil is hydrophobic (moves away from/floats on water); Food colouring is hydrophilic (likes water more than being in oil);

Predictions, testing and observations

<u>Engineering</u>: Making a firework launcher; Testing out the best way to launch/adapt the launcher

Arts: Salt painting technique; Choosing colours for fireworks

<u>Maths</u>: Measuring how far straw firework travels; Testing angles with straw firework; Vocabulary-short/long, furthest, longer/shorter etc.

