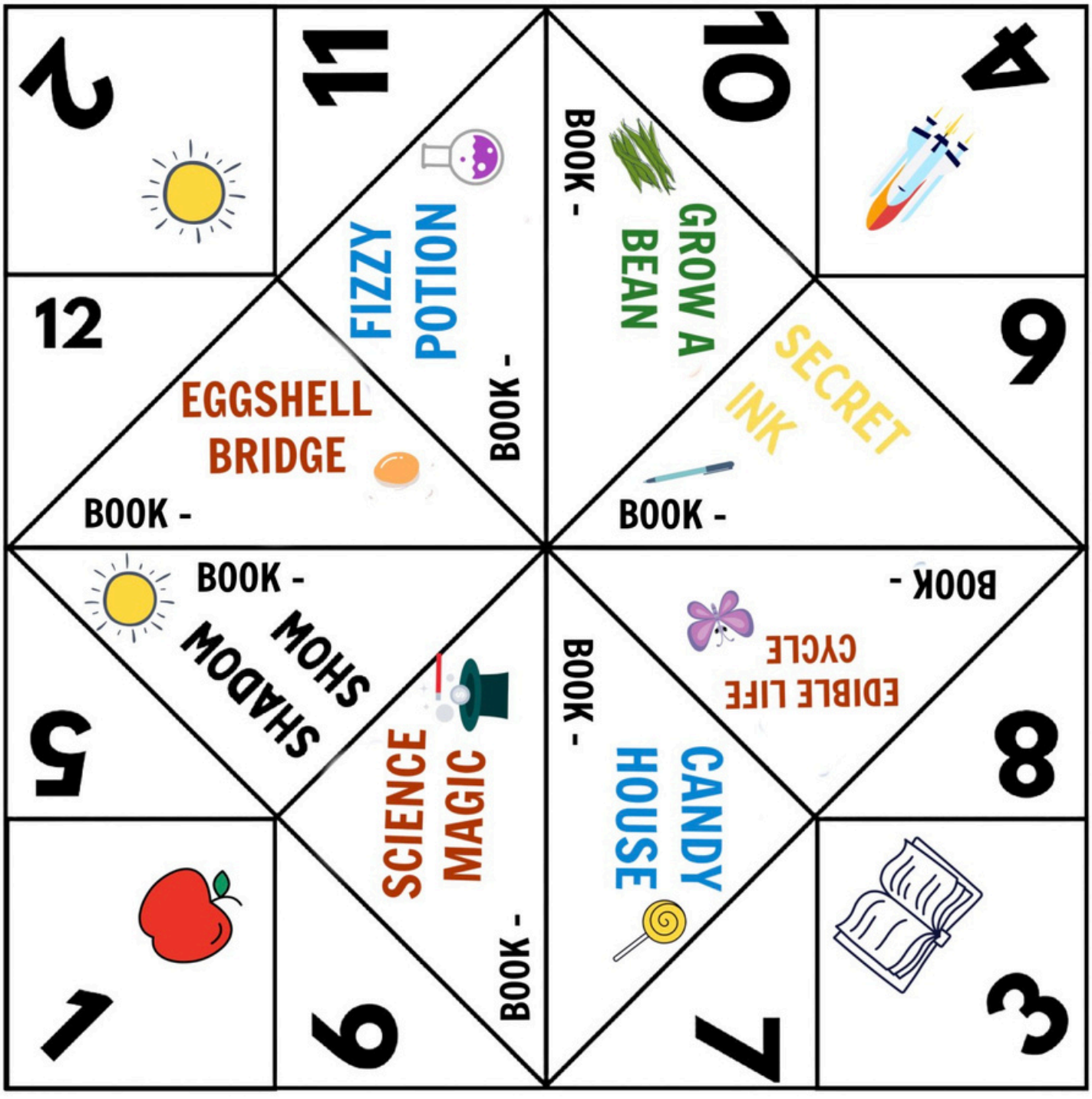
SCIENCE EXPERIMENT FORTUNE TELLER

WORLD BOOK DAY

Fold the fortune teller, gather together materials for the science experiments and start playing.

How does it work?

- Ask the person you're playing with to choose a number from the side of the fortune teller.
- Spell out or count the number to reveal new numbers.
- As the player to choose another number and count or spell again.
- Ask the player to choose a final number, then lift the flap to reveal the science experiment.
- Do the experiment and start again.



EXPERIMENT INSTRUCTIONS

EGGSHELL BRIDGE

Materials

Eggs
A pen
Scissors or a sharp knife
Books

Instructions

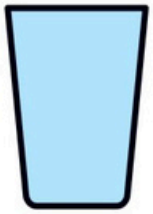
Carefully make a hole in one of the eggs and empty the contents.
Draw a line around the centre point of the egg and carefully pick off bits of the shell until you're left with a half eggshell.
Repeat until you have four half eggshells.
Carefully pile books on top of the eggshells until they break.

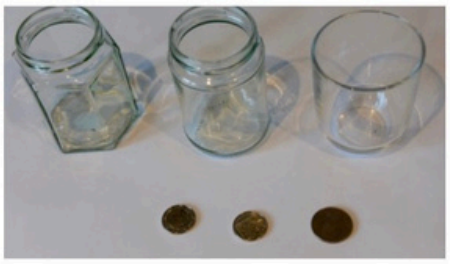
Eggshells naturally form a dome shape. Domes are very good at spreading weight evenly in all directions so that no part of the dome has to support more weight than another part. The downward force of the weight of the books is transferred evenly by the dome shape down to the hard surface

MAGIC TRICK - disappearing coin

Materials

Glass
Water
Coin or picture





Instructions

Place a glass on top of a coin. You should be able to see the coin.

Slowly pour water into the glass. The coin should disappear.

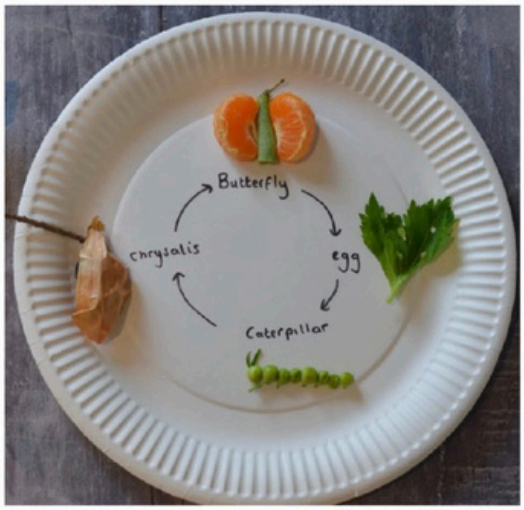
Light travels in a straight line, bounces off objects, and enters our eyes, allowing us to see things. Generally, there is little or no refraction of light as it travels through air.

However, when you pour water into the glass or jar, the light from the coin is refracted (bends) and doesn't reach your eyes, which is why the coin seems to disappear.

SCIENCE SPARKS

EXPERIMENT INSTRUCTIONS

EDIBLE LIFE CYCLE



Materials

Paper plate
Food items
Pen

Instructions

Use food items to create an edible butterfly life cycle. Think about how to represent each stage

Egg → Caterpillar → Chrysalis → Butterfly

GROW A BEAN

Materials

A broad bean seed
Jar
Kitchen towel or a napkin
Water

Instructions

Swirl a small amount of water around the jar.
Fold your napkin or kitchen roll and place it in the jar
Place the bean seed in the jar resting on the napkin.
Spray some water on the bean every few days.
Once the bean has germinated and grown, plant it in soil.

Germination is the sprouting of a seedling from a seed. For a seed to germinate it needs oxygen and water.

EXPERIMENT INSTRUCTIONS

INVISIBLE INK

Materials
Lemon or lime
Cup or bowl
Cotton bud or small paintbrush
Paper
Oven

Instructions
Squeeze the lemon or lime juice into a container.
Use the paintbrush or cotton bud to draw or write a message on the paper.
Place the paper in an oven on low heat (ask an adult to help) and the message will be revealed.

ADULT SUPERVISION NEEDED

CANDY HOUSE

Materials
Candy / sweets - different shapes and sizes
Icing sugar / glucose syrup / jam
Plate

Instructions
Design and build a structure with a roof made from candy.

Test different sticky substances to see which holds the candy together the best.

EXPERIMENT INSTRUCTIONS

Shadow Show

Materials

Paper
Lolly stick or craft stick

Instructions

Cut out different shapes from paper and attach a craft stick to the base. On a sunny day go outdoors and make a shadow show with the shadow puppets.

Try experimenting with shadows at different times of the day. You should find that the Sun makes the longest shadows at the beginning and end of the day when the Sun is lowest in the sky and the shortest shadows at midday when it's highest in the sky.

FIZZY POTION

Materials

Containers and jars
Pipettes or spoons
Bicarbonate of Soda (Baking Soda)
Water
Food colouring
Vinegar

Instructions

Pour a little water, food colouring and baking soda into a small container and mix well.

Add vinegar and watch the potion fizz.

Vinegar is an acid and baking soda an alkali (also called a base). When they are mixed they react to neutralise each other.

The reaction releases a gas called carbon dioxide which is the bubbles you see in the potion. Adding (washing up liquid) dish soap gives a thicker foam!

Experiment with different amounts of baking soda, washing-up liquid and vinegar to find the perfect fizz!

SCIENCE SPARKS