

Primary Science

Resource Pack for Year 3 and Year 4

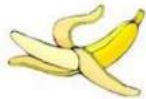
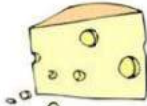
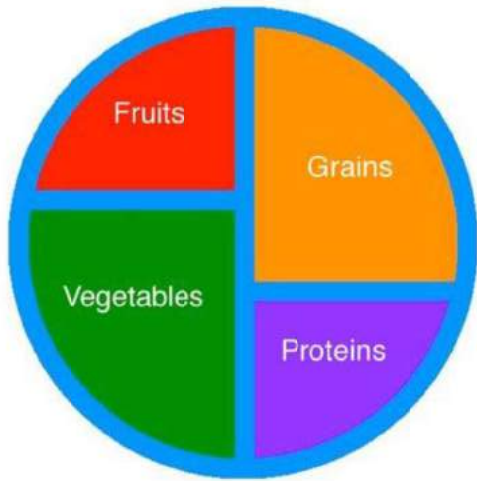


This Primary Science Resource Pack includes resources (topics) from the Year 3 and Year 4 Learning Outcomes.

Name: _____

My Plate

Directions: Eating the proper foods in the proper amounts is one way of staying healthy. Color the dot next to each food to show the group to which the food belongs.



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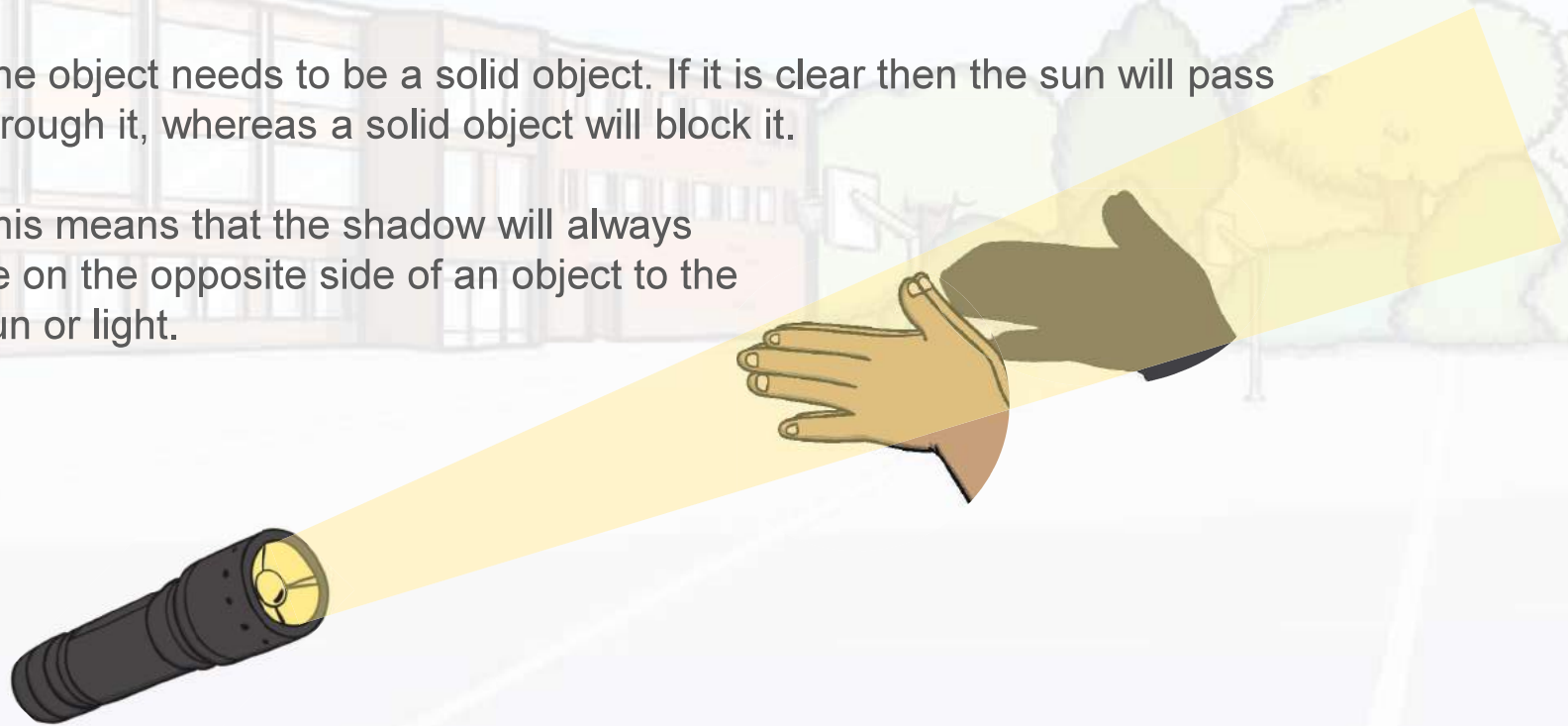
- Food hygiene or food safety are very important when handling food.
- There are harmful germs that can make us sick if we are not careful.
- Most germs we find on food grow best between 5°C and 40°C in warm and damp places.
- Germs generally dislike places that are too warm and are killed at temperatures above 70°C. In cooler temperatures, below 5°C, most germs grow very slowly.
- This is why we keep our food in the fridge and cook our meat well before we eat it.
- Sometimes harmful microbes found on food can spread to other foods, for example via hands, or kitchen utensils and cause illness when those foods are eaten.
- They can also be spread if raw meats are washed and microbes splash onto work surfaces or other foods.
- This is known as cross-contamination.

How Are Shadows Made?

Shadows are made when there is an object blocking the light from hitting the surface.

The object needs to be a solid object. If it is clear then the sun will pass through it, whereas a solid object will block it.

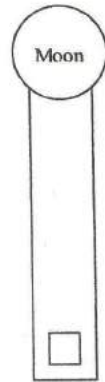
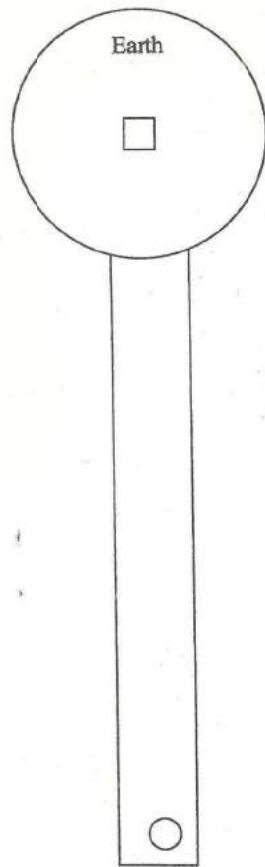
This means that the shadow will always be on the opposite side of an object to the sun or light.



Move the object towards and away from the light source. Does the shadow shape and size change?

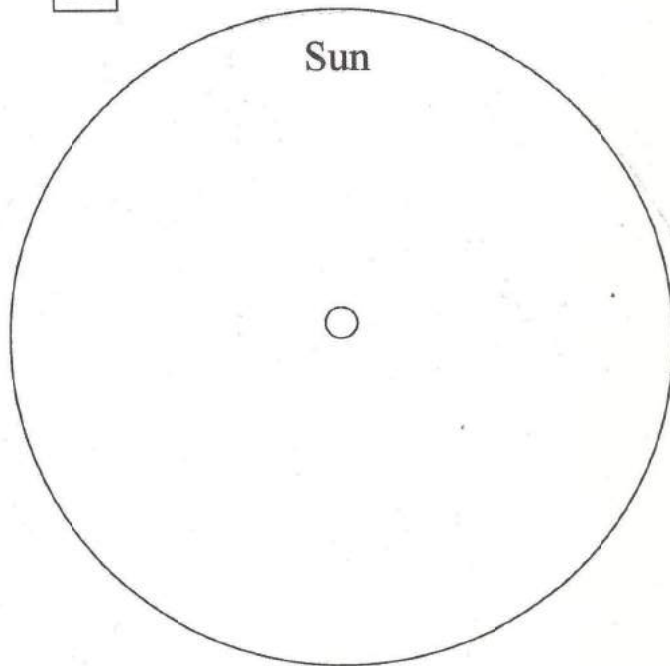
Sort the pictures of materials into natural and man-made materials.





Directions:

1. Color the earth, moon and the sun.
2. Cut out the patterns.
3. Connect the earth to the sun using a brad or paper fastener on the circle.
4. Connect the moon to the earth using a brad or paper fastener on the square shape.
5. Show the movement of the earth and moon by moving the earth around the sun and the moon around the earth.



Can you explain why we have day and night by using the words in the box to complete each sentence?

We live on the planet _____.

Light comes from the _____.

The Earth _____ on its axis once each day.

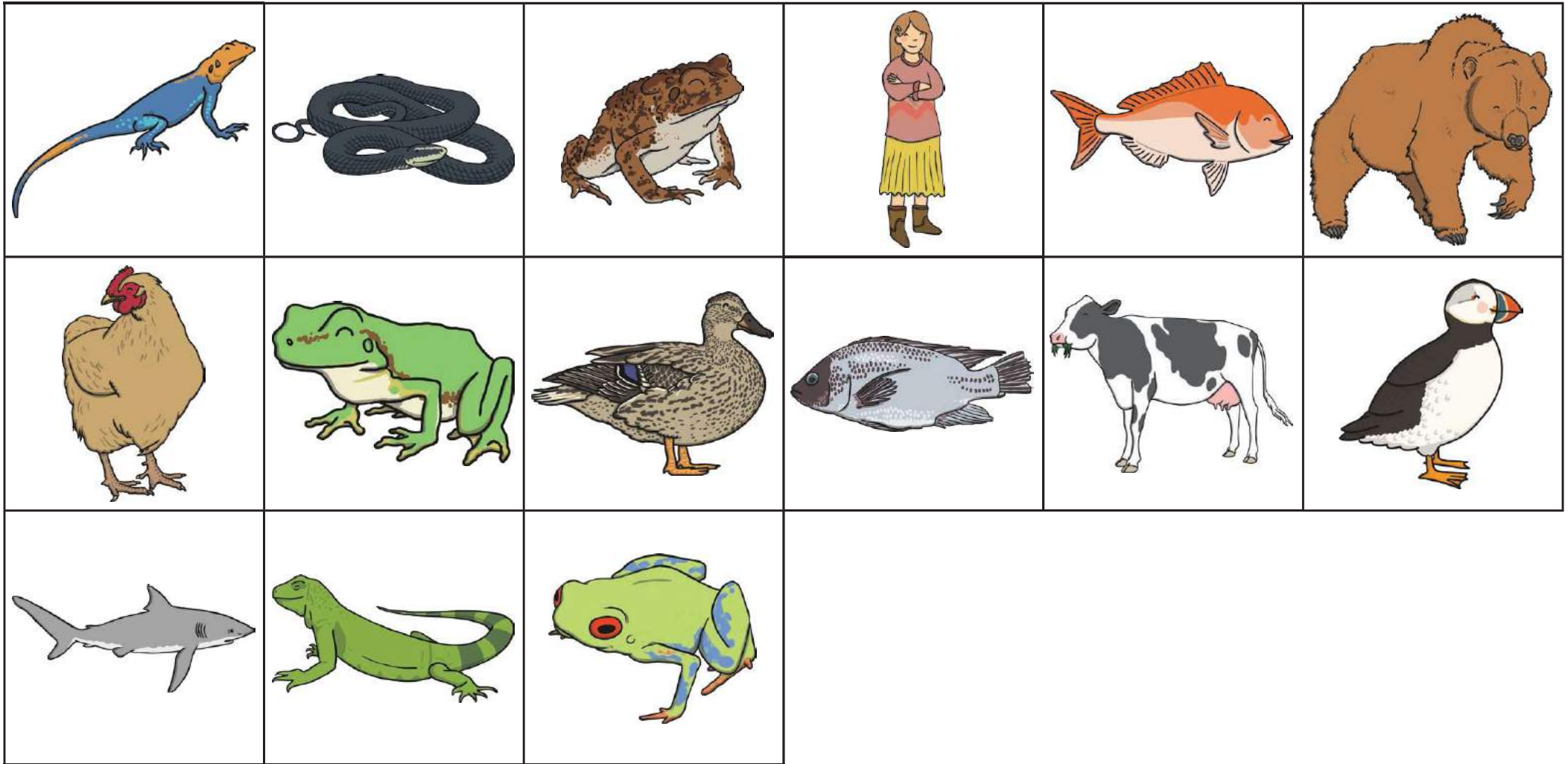
When the Sun shines on our part of the Earth, we are in _____.

When our part of the Earth spins away from the Sun we are in _____.

spins	night-time	daytime	Sun	Earth
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Sorting Animals

Sort these animals into the correct sets. Are they mammals, reptiles, amphibians, fish or birds?



Putting Together a Flower

Instructions:

Cut out the parts below and paste them on the sheet to make a flower.

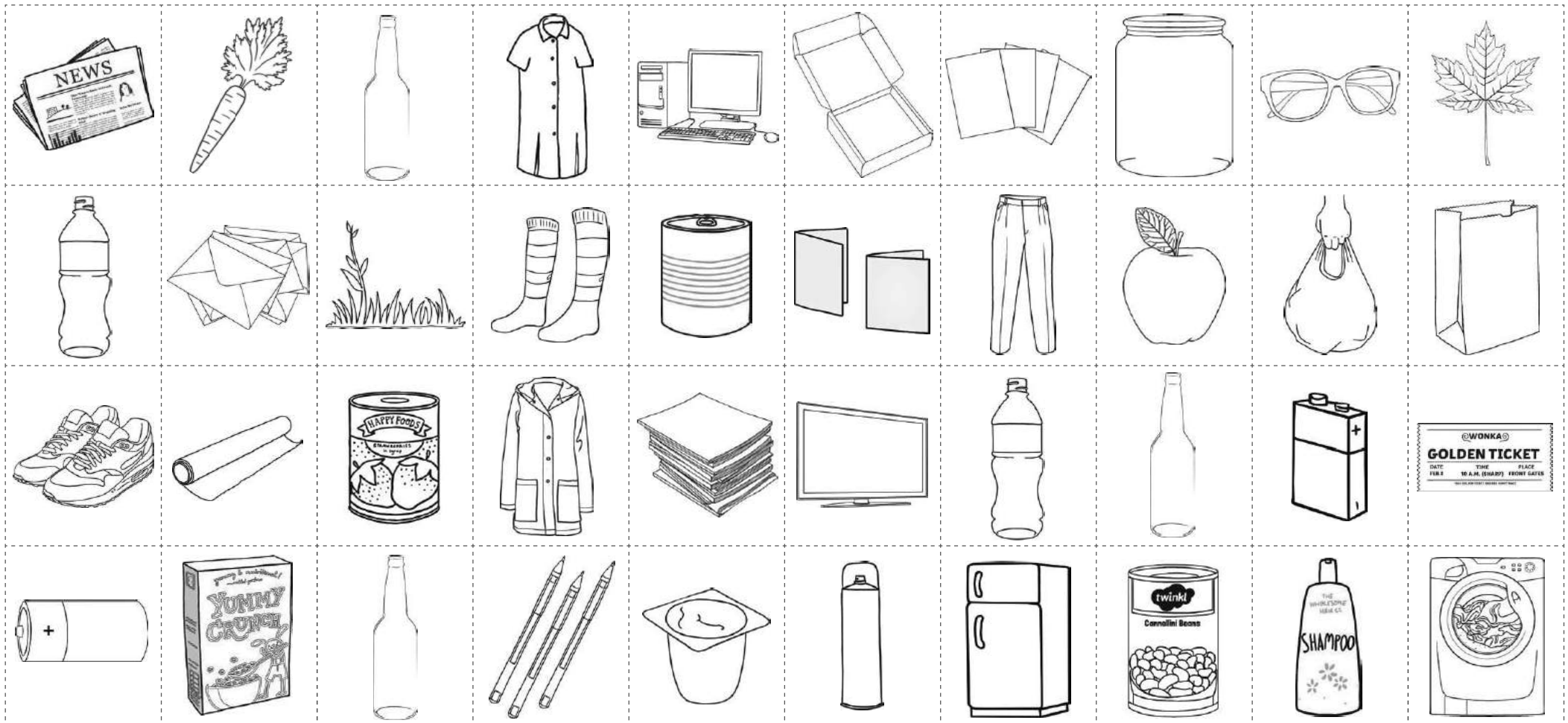


Recycling Sorting

Colour in and cut out the images and stick them in the correct box in the table.



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Conductors and Insulators

A **conductor** is a material that **allows** electricity to pass through it.

An **insulator** is a material that **does not allow** electricity to pass through it.








metal spoon	nail	piece of string	paperclip	
drawing pin	ruler	pencil	toy car	2p
10p	piece of wood	aluminium foil	key	
plastic spoon	piece of card	piece of paper		

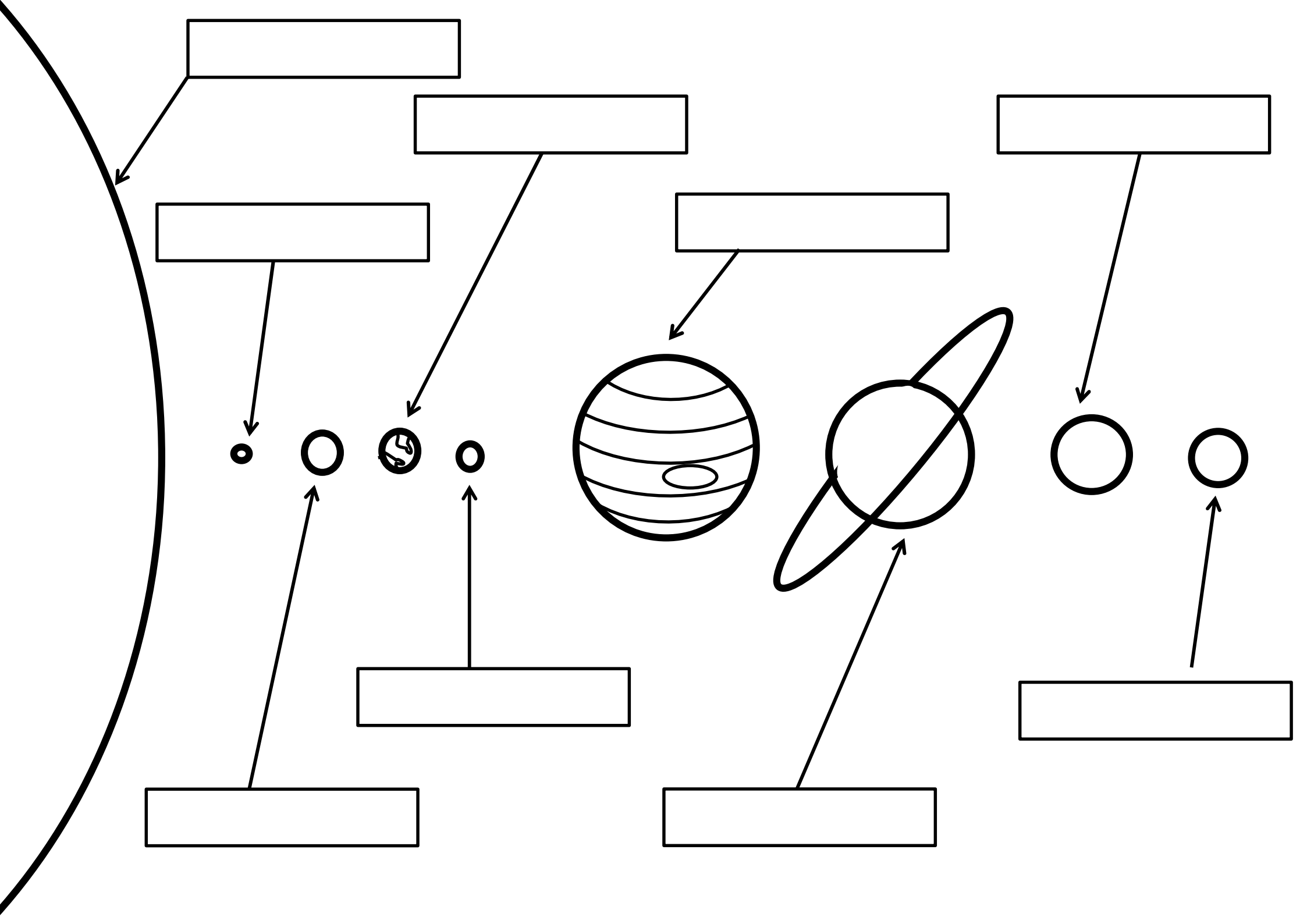
Write the objects in the prediction column in the group you think they belong in. Test the objects and write them in the results column they belong in. Were your predictions correct?

Conductors		Insulators	
Prediction	Results	Prediction	Results

Is It Magnetic?

In the prediction column below write whether you think each object will be attracted to a magnet or not. Test the objects with a magnet and fill in the results column.

Object	Prediction	Test Result
fork 		
knife 		
spoon 		
'copper' coin 		
'silver' coin 		
pencil 		
drink can 		



Rainbow Bubble Snakes

Resources required:

An empty water bottle; a small piece of fabric e.g. a towel or an old sock; liquid soap; water; food colouring; rubber band; scissors; glycerine (optional).

Description of investigation:

- 1) To make the bubble solution pour 2 to 3 tablespoons of liquid soap in a bowl and mix with 250ml water. You may add glycerine to have stronger, longer lasting bubbles. Stir well.
- 2) Cut the bottom of an empty, clean plastic bottle using scissors.
- 3) Cover the cut opening with the fabric and secure with a rubber band.
- 4) Add a few drops of food colouring to the fabric at the end of the bottle.
- 5) Dip the fabric covered end in the bubble solution.
- 6) Blow into the mouth of the plastic bottle.

Investigation Questions:

- ✓ What shape are bubbles?
- ✓ Does blowing hard or soft effect the shape of bubbles formed?
- ✓ How are so many bubbles formed at once?



More info:

<https://www.stevespanglerscience.com/lab/experiments/bubble-snakes/>

Catch A Rainbow

Resources required:

Red, blue and yellow food colouring (pepper may also be used); 1 cup milk; dish soap; shallow bowl; Catch a Rainbow printable activity sheet (optional); The Colour Wheel.

Description of investigation:

- 1) Pour 1 cup of milk into the bowl (whole milk is best).
- 2) Add 3 drops of red food colour to one edge of the bowl.
1/3 of the way away add 3 drops of blue food colour.
1/3 of the way away add 3 drops of yellow food colour.

Important: Don't mix the colours or shake the bowl.

- 4) Squeeze a drop of dish soap on a cotton bud and place the tip gently in the centre of the bowl.

Investigation Questions:

- ✓ What do you observe?
- ✓ Why did the colours mix when the soapy cotton bud was introduced?
- ✓ What happens if more soap is added to the mixture?



More info:

<https://www.kidzone.ws/science/rainbow.htm>

Wind Chimes

Resources required:

Plastic jar lid/cap or piece of wood or other reusable items (as a base to hang the chimes from), string, metal object such as bells or metal can, objects for the chimes made of the same material or made of different materials such as wood or plastic.

Description of investigation:

- 1) Collect different items around the house including some wooden objects. You may also include natural objects such as twigs, sticks, stones, shells.
- 2) Investigate the sound produced by each item by hitting it gently against a surface. Observe the sound produced.
- 3) Research different chimes for more ideas, then decide on which items to be included as a chime.
- 4) Tie the ends of the chosen items to the base.
- 5) Now tie the metal can or the bell such that it produces a sound when the objects hit it.
- 6) Your chime is ready. Hang your chime where it will catch the wind.

Investigation Questions:

- ✓ How is sound produced?
- ✓ Do all objects produce the same sound?



More info:

<https://sawshub.com/woodworking-for-kids-easy-projects/>

Lava Lamp

Resources required:

Vegetable oil; water; food colouring (any colour); Alka Seltzer tablets (or any effervescent tablet), container e.g. jar or empty plastic bottle.

Description of investigation:

- 1) Fill half a cup with water and add 3-4 drops of food colouring.
- 2) Break one Alka Seltzer tablet into 2 or 3 pieces.
- 3) Fill up the container, about 3/4 full, with vegetable oil. Then pour in the coloured water until the liquid in the cup has reached a level 3-5 cm from the top.
- 4) Wait for the liquids to settle.
- 5) Add a piece of Alka Seltzer tablet to the cup.
- 6) Observe what happens.

Investigation Questions:

- ✓ What did you notice as soon as you added the coloured water to the oil? Why does this happen?
- ✓ Why does the oil remain clear and not coloured?



More info:

<https://funlearningforkids.com/super-cool-lava-lamp-experiment/>