

## Year 3 and 4 - Plants

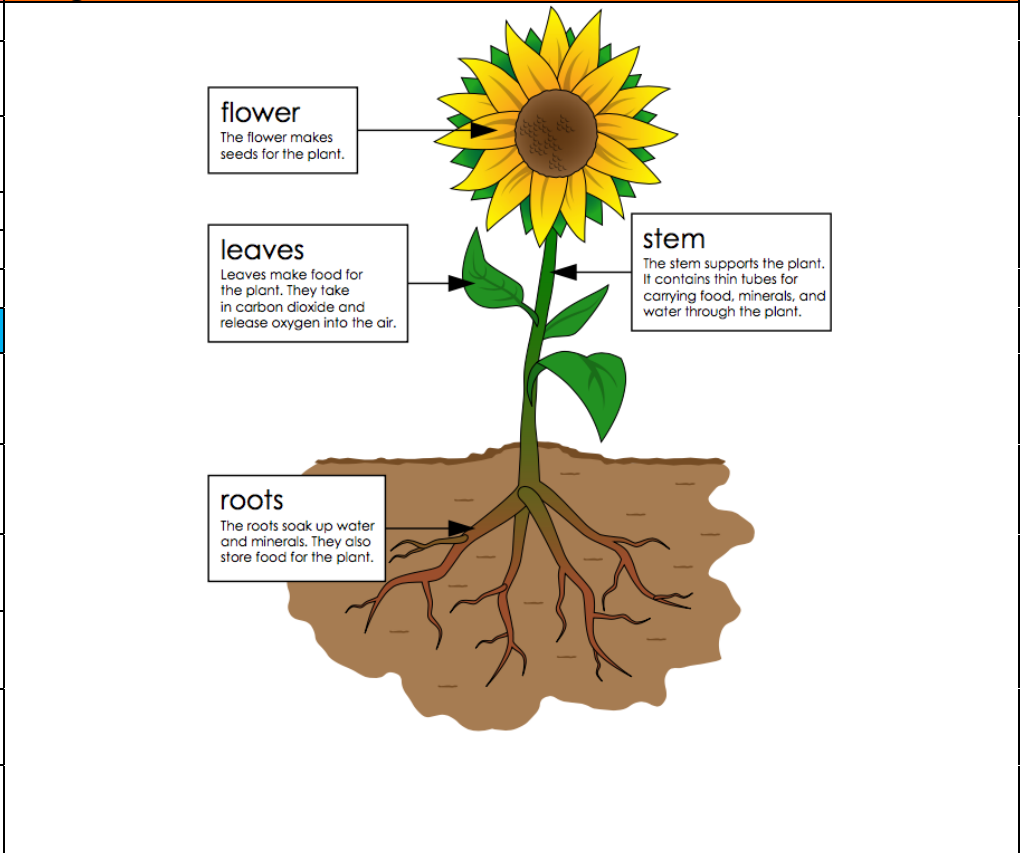
| Prior Learning   | Concepts  |  |
|--|-----------|--|
| <ul style="list-style-type: none"> <li>I know plants are living.</li> <li>I know plants need water, light and suitable temperature.</li> <li>I can explain the meaning of deciduous (sheds its leaves annually) and evergreen (does not lose its leaves) plants.</li> <li>I can name and explain functions of parts of a plant including roots (anchor and collect water), flower (attract bees), leaves (make food), stem (support and transport water).</li> </ul> | Formation | the way in which a thing is formed.                                      |
|  | Function  | the purpose or role that an object or a person fulfils or is suited for. |

| Vocabulary | Diagram |
|------------|---------|
|------------|---------|

|                     |   |
|---------------------|---|
| <b>Dispersal</b>    | to drive away in all directions; scatter.                               |
| <b>Nutrient</b>     | something in food that helps people, animals, and plants live and grow. |
| <b>Pollination</b>  | to move or carry pollen to a plant, causing the seeds to be fertilised. |
| <b>Reproduction</b> | the process by which living things create young or offspring.           |
| <b>Survival</b>     | the act or fact of continuing to be alive or survive.                   |
| <b>Transported</b>  | a means of carrying or transporting.                                    |

| Key Facts |
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1. The roots take water and nutrients from the soil.
2. The stem holds the plant upright and transports water around the plant.
3. The leaf is where food is made. Plants make their own food.
4. The flower attracts bees to ensure pollination.
5. Flowers produce seeds to make new plants.
6. Seeds can be dispersed by the wind, explosion, water and animals.



## Year 3 and 4 - Animals Including Humans

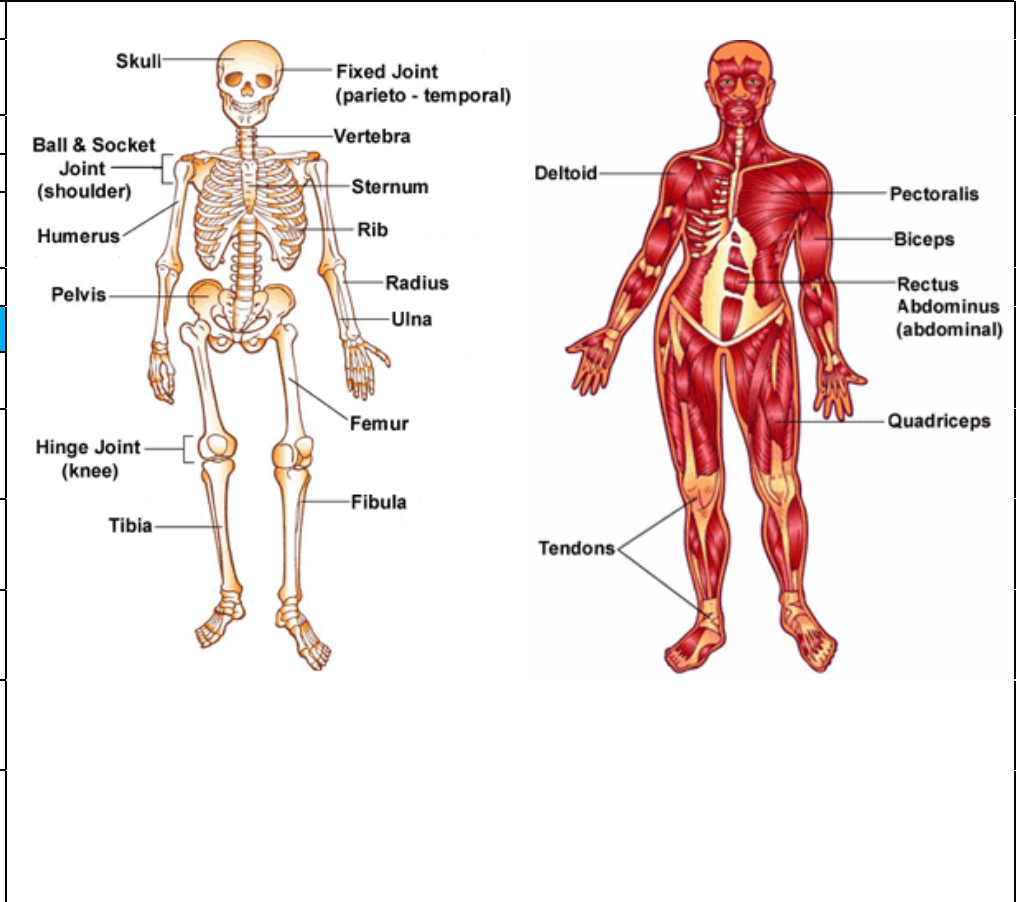
| Prior Learning  | Concepts          |  |
|---|-------------------|--|
| <ul style="list-style-type: none"> <li><b>I know it is good for my body to</b> exercise regularly, eat a balanced diet, sleep around 10-12 hours per night and be hygienic.</li> <li><b>I know plants and animals are</b> suited to their habitat <b>such as a polar bear in the Arctic.</b></li> <li><b>I can identify parts of a simple food chain</b> such as grass, rabbit and fox <b>and know animals often</b> hunt to obtain their food.</li> <li><b>I know the body parts that relate to the senses are</b> the nose, eyes, ears, hands and mouth.</li> </ul> | <b>Protection</b> | the act of keeping something safe from harm or the condition of being protected. |
|   | <b>Support</b>    | bear all or part of the weight of; hold up.                                      |

| Vocabulary | Diagram |
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|-------------------|---|
| <b>Diet</b>       | the food and drink usually eaten and drunk by a person or animal.   |
| <b>Food Group</b> | separate food groups with different functions for the body such as protein, carbohydrates, dairy, fats, fruit and vegetables, |
| <b>Movement</b>   | a particular action or way of changing place or position  |
| <b>Muscle</b>     | tissue in the body of animals and humans that moves parts of the body.  |
| <b>Nutrition</b>  | the act or process of eating and using the nutrients in food for living and growing.  |
| <b>Skeleton</b>   | the inner framework of bones and cartilage in vertebrate animals.   |

| Key Facts |  |
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1. **All animals have a skeleton.**
2. **There are three functions of the skeleton these are to protect, support and for movement.**
3. **Names of the main bones in the body are: skull, ribcage, femur, kneecap, tibia , fibula and spine.**
4. **Muscles work in pairs to allow movement such as the biceps and triceps in the arm.**
5. **As one muscle contracts becoming shorter and fatter, the other muscle relaxes becoming longer and thinner.**
6. **There are five food groups that we eat for different reasons carbohydrates, fruits and vegetables, fats and oils, dairy and protein.**



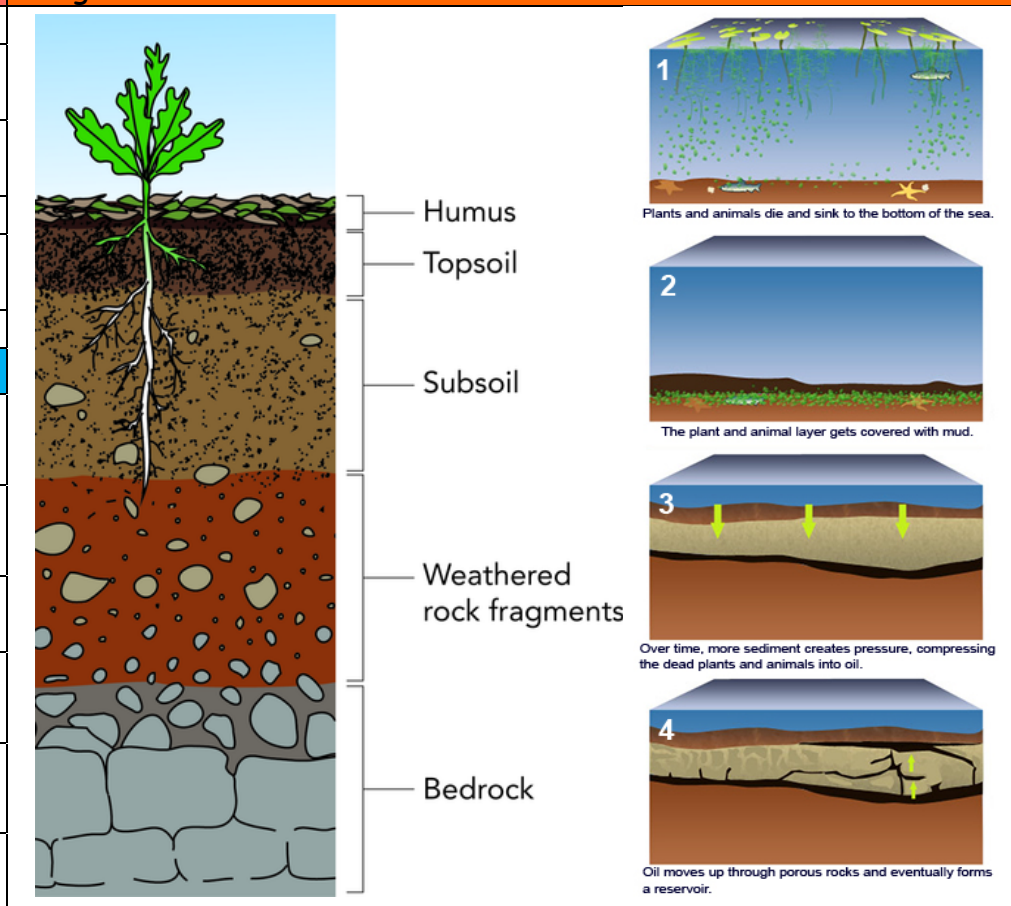
## Year 3 and 4 - Rocks

| Prior Learning   | Concepts          |   |
|--|-------------------|---|
| <ul style="list-style-type: none"> <li>I know there are different types of materials such as plastic, metal, wood and fabric and that materials have different uses.</li> <li>I know rocks are used to make different types of buildings.</li> <li>I know rocks are different properties such as the shape, texture and colour.</li> <li>I know soil is part of the ground and plants grow in soil.</li> <li>I can identify what is dead, alive or never lived.</li> </ul> | <b>Formation</b>  | the way in which a thing is formed.                   |
|  | <b>Properties</b> | a quality that something is known by; characteristic. |

| Vocabulary | Diagram |
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|------------|---------|

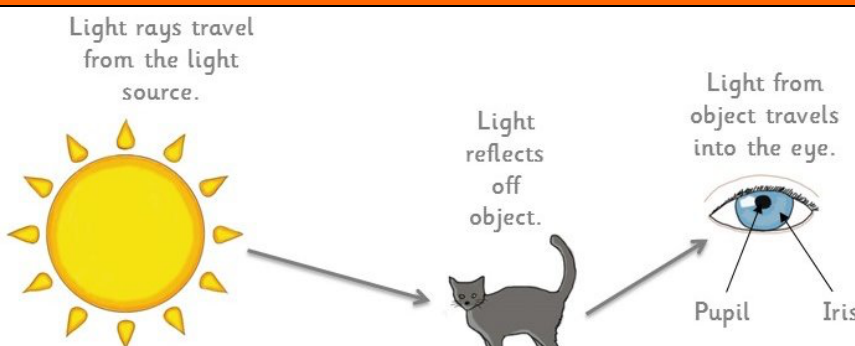
|                |   |
|----------------|---|
| <b>Fossil</b>  | the remains or trace of a living animal or plant from a long time ago.  |
| <b>Humus</b>   | a material that is made up of partly decayed leaves and plants. Humus adds nutrients to soil and helps it hold water. |
| <b>Layers</b>  | a section of something that alternates with a different material from top to bottom.                                  |
| <b>Natural</b> | of or produced by nature; not made by humans.   |
| <b>Organic</b> | produced or producing naturally, without using pesticides or other added chemicals.                                   |
| <b>Soil</b>    | the top layer of the earth's surface  |

- | Key Facts   |
|---|
| 1. Soil is made up of elements such as <u>grit, organic matter and minerals.</u>                              |
| 2. <u>Rocks</u> come in many <u>different forms</u> and they can look very different.                         |
| 3. Rocks that allow water to pass through are <u>porous</u> rocks.  |
| 4. Rocks can change shape, appearance or texture due to <u>weathering.</u>                                    |
| 5. <u>Fossils</u> help us to learn about the past, they are often formed when an <u>animal or plant</u> dies. |
| 6. Fossils are only found in <u>sedimentary</u> rock.   |

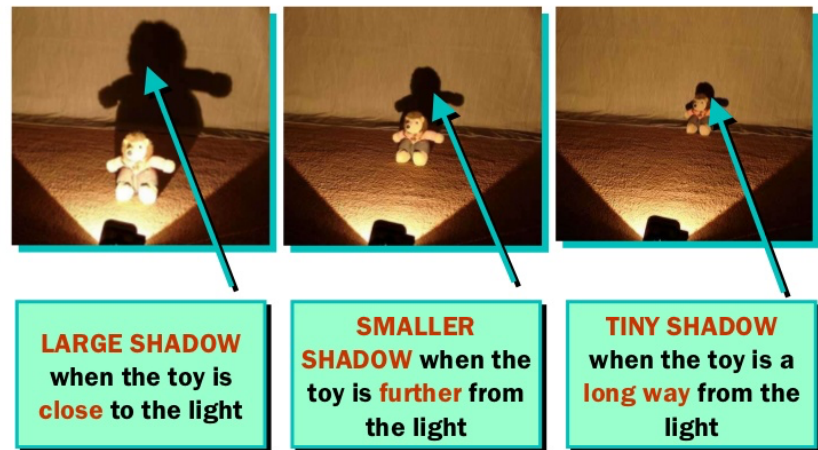


## Year 3 and 4 - Light

| Prior Learning   | Concepts      |  |
|--|---------------|--|
| <ul style="list-style-type: none"> <li>I know that it is dangerous to directly look at the sun.</li> <li>I know the amount of light we have in a day changes during the different seasons.</li> <li>I know materials reflect light and some are better than others at doing this such as mirrors or shiny surfaces.</li> <li>I know shadows are created when something goes in front of a light source.</li> </ul> | <b>Source</b> | the start or cause of something.                               |
|  | <b>Travel</b> | to move forward in any way.<br>to journey from place to place. |

| Vocabulary     |   | Diagram   |  |
|----------------|---|---|--|
| <b>Dark</b>    | having little or no light.  | <p>Light rays travel from the light source.</p>  |  |
| <b>Eye</b>     | the organ of the body that gives animals sight, and the area close around it.   |   |  |
| <b>Light</b>   | the form of energy that makes it possible for the eye to see.   |   |  |
| <b>Reflect</b> | to throw back an image of or from a surface; mirror.  |   |  |
| <b>Shadow</b>  | the dark image cast on some surface by a something blocking the source of light.  |   |  |
| <b>Sun</b>     | the star in the middle of our solar system. The earth and other planets revolve around it and receive heat and light from it. |   |  |

| Key Facts |  |
|-----------|--|
| 1.        | We need light to <u>see</u> with our <u>eyes</u> .   |
| 2.        | Light can only travel in <u>straight lines</u> .   |
| 3.        | Light sources can be <u>natural</u> (fire and the sun) or <u>manmade</u> (torch and electric lamp). The <u>moon</u> is not a light source. |
| 4.        | Light <u>reflects</u> off surfaces and some surfaces <u>reflect</u> light better than others.  |
| 5.        | It is <u>dangerous</u> to look directly at the <u>sun</u> and it can hurt our <u>eyes</u> .  |
| 6.        | <u>Shadows</u> are formed when the light is blocked by a solid object.   |



## Year 3 and 4 - Forces and Magnets

### Prior Learning

- I know magnets "stick" to materials such as metal.
- I know magnets are used in different objects such as doors, laptops and toys.
- I can identify different types of materials like plastic, metal, wood and rock, including different surfaces around us.
- I know there are different forces such as pushing and pulling.

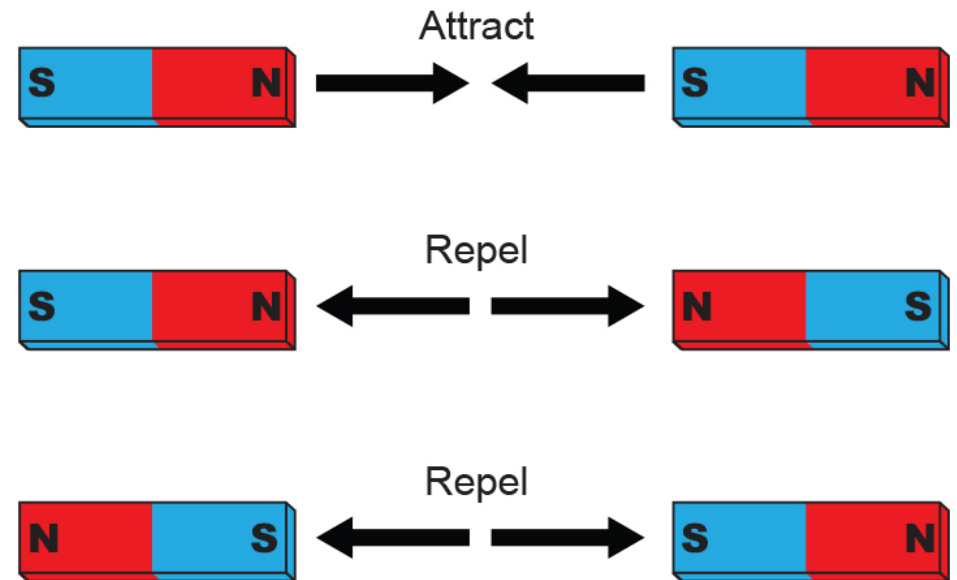
### Concepts

- |                |  |
|----------------|--|
| <b>Force</b>   | power, energy, or physical strength.   |
| <b>Surface</b> | the outside or top layer of something. |

### Vocabulary

|                 |  |
|-----------------|--|
| <b>Attract</b>  | to cause to come near.   |
| <b>Magnet</b>   | an object that has the power to pull items made of iron toward itself. |
| <b>Magnetic</b> | having to do with magnets and the way they work.                       |
| <b>Material</b> | anything used for building or making something else.                   |
| <b>Pole</b>     | either of a magnet at which the field of the magnet is most intense.   |
| <b>Repel</b>    | to ward off or force back.   |

### Diagram



### Key Facts

1. Magnets have two poles North and South.
2. Opposite poles of a magnet attract and same poles repel.
3. Materials that magnets attract are called magnetic.
4. Not all metals are magnetic.
5. Many forces need contact of objects, magnets do not need contact to create a force.
6. Objects move differently on different surfaces. Rough surfaces create more friction and smooth surfaces create less friction.