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Year	4	Topic	Living things and their habitats

Curriculum objectives

1. Recognise that living things can be grouped in a variety of ways.
2. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
3. Recognise that environments can change and that this can sometimes pose dangers to living things.

Classifying

- Based on the children's own criteria:
  - classify a number of living things in their local environment (plants and animals)
  - classify a number of living things in the wider environment (plants and animals) after completing research
  - introduce branching databases/dichotomous keys.

Observing over time

- Observe living things in their local environment at different times of the year.

Pattern seeking

- Do animals with …. have ….?
- Do plants with …. have ….?

Comparative/Fair testing

- Not relevant

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Researching

- Research and be able to name plants and animals in the wider environment e.g. polar, desert, jungle, etc.
- Research global environmental issues and their impact on living things.

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Year	4	Topic	Animals, including humans

Curriculum objectives

1. Describe the simple functions of the basic parts of the digestive system in humans.
2. Identify the different types of teeth in humans and their simple functions.
3. Construct and interpret a variety of food chains, identifying producers, predators and prey.

Classifying

- Compare and contrast different types of teeth (linking to simple functions).
- Classify jaw bones/teeth to aid with making food chains e.g. recognise what eats plants and what eats animals by looking at their teeth.

Observing over time

- Not relevant

Pattern seeking

- Not relevant

Comparative/Fair testing

- Not relevant

Researching

- Research the different parts of the digestive system. (Children present what they've learned in different ways: create a model, write a song, write a story, create a PPT, etc.)
- Research what different animals eat within a specific environment, e.g. coral, polar, African grasslands, in order to construct food chains.

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Year	4	Topic	States of matter

Curriculum objectives

1. Compare and group materials together, according to whether they are solids, liquids or gases.
2. Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
3. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Classifying

- Based on the children's own criteria:
  - classify solids (including grains, crystals, powders: physical properties)
  - classify liquids.

Observing over time

- Watch ice melt (ice hands).
- Watch hand prints dry e.g. water hand prints on coloured paper towel.
- Watch frozen liquids melt.

Pattern seeking

- Not relevant

Comparative/Fair testing

- What affects the melting rate of chocolate (size of pieces, temperature of water, type of chocolate)?
- What affects the rate an 'ice pole' melts?
- What affects the rate of evaporation?
- Test the 'runniness' of liquids.

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Researching

- Research the melting point of metals.
- Research the water cycle. (Children present what they've learned in different ways: create a model, write a song, write a story, create a PPT, etc.)

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Year	4	Topic	Sound

Curriculum objectives

1. Identify how sounds are made, associating some of them with something vibrating.
2. Recognise that vibrations from sounds travel through a medium to the ear.
3. Find patterns between the pitch of a sound and features of the object that produced it.
4. Find patterns between the volume of a sound and the strength of the vibrations that produced it.
5. Recognise that sounds get fainter as the distance from the sound source increases.

Classifying

- Based on the children's own criteria, sort musical instruments.

Observing over time

- Not relevant

Pattern seeking

- Not relevant

Comparative/Fair testing

- Measure volume from different instruments.
- Measure how volume changes away from a source.
- Investigate string telephones.
- Explore pitch e.g. through a carousel of activities using milk bottles, straw pipes, rulers, elastic band guitars.

Researching

- Research, make and play their own instruments based on what they learned about pitch and volume.

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Year	4	Topic	Electricity

Curriculum objectives

1. Identify common appliances that run on electricity.
2. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
3. Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
4. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
5. Recognise some common conductors and insulators, and associate metals with being good conductors.

Classifying

- Based on the children's own criteria, classify household appliances and/or toys (leading to electrical/not electrical, batteries/mains).
- Test materials to classify into insulators and conductors.

Observing over time

- Not relevant

Pattern seeking

- Not relevant

Comparative/Fair testing

- Not relevant

Researching

- Not relevant