

Year 2 Scheme of Learning: Science

Year 2 – Autumn 1 – Plants

Lesson 1	
Learning Objective	To know that seeds grow into different plants and to describe them.
Declarative Knowledge	- Plants grow from seeds. - Different types of seeds will grow into different types of plants.
Procedural Knowledge	Communicating ideas.
Key Vocabulary	Seeds, plants, grow, harvest.

Lesson 2	
Learning Objective	To know plants can be grown from bulbs.
Declarative Knowledge	- Plants may grow from either seeds or bulbs. - Bulbs grow in the winter or spring.
Procedural Knowledge	Making observations.
Key Vocabulary	Bulb, shoot, sprout, harvest.

Lesson 3	
Learning Objective	To why and how seeds are dispersed.
Declarative Knowledge	- Seeds and bulbs need to be planted outside at particular times of the year and they will germinate and grow at different rates. - Dispersal can be done by animals, water, wind and explosion.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Seeds, dispersal, types of dispersal , fruit.

Lesson 4	
Learning Objective	To investigate the conditions that affect germination.
Declarative Knowledge	- Some plants are better suited to growing in full sun and some grow better in partial or full shade. - Plants also need different amounts of water and space to grow well and stay healthy.
Procedural Knowledge	Setting up tests.
Key Vocabulary	Germination, dark, light, shade, sprouted.

Lesson 5	
Learning Objective	To observe and describe how a plant changes as it matures.
Declarative Knowledge	- Seeds then germinate and grow into seedlings which then continue to grow into mature plants. - These mature plants may have flowers which then develop into seeds, berries, fruits etc.
Procedural Knowledge	Making observations.
Key Vocabulary	Germinate, shoot, root.

Year 2 – Spring 1 – Use of everyday materials

Lesson 1	
Learning Objective	To explore the properties of a variety of balls.
Declarative Knowledge	- All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task.
Procedural Knowledge	Making observations.
Key Vocabulary	Bouncy, hard, soft, property, suitable.

Lesson 2	
Learning Objective	To examine fabrics and discuss the requirements of some clothes.
Declarative Knowledge	- When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. - A material can be suitable for different purposes and an object can be made of different materials.
Procedural Knowledge	Interpreting data.
Key Vocabulary	Shape, twisting, squashing, bending, stretching, material.

Lesson 3	
Learning Objective	To understand that some materials need to be able to 'give' a little and not break.
Declarative Knowledge	- When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. - A material can be suitable for different purposes and an object can be made of different materials.
Procedural Knowledge	Making observations.
Key Vocabulary	Strong, weak, stable, materials, bridge.

Lesson 4	
Learning Objective	To identify and discuss the materials/properties of objects and sort them according to criteria.
Declarative Knowledge	- To know and name some material properties (hard, soft, strong, weak, flexible, rigid, stretchy). - To name examples of different properties.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Flexible, hard, soft, stretchy, material.

Lesson 5	
Learning Objective	To understand that paper varies in strength and think of a way to test the strength of different papers.
Declarative Knowledge	- When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. - A material can be suitable for different purposes and an object can be made of different materials.
Procedural Knowledge	Interpreting data.
Key Vocabulary	Strength, flexible, rigid.

Year 2 – Summer 1 – Living Things and Their Habitats

Lesson 1	
Learning Objective	To identify objects that are either living or dead.
Declarative Knowledge	- Living things are plants (including seeds) and animals. - Dead things include dead animals and plants and parts of plants and animals that are no longer attached e.g. leaves and twigs, shells, fur, hair and feathers (this is a simplification but appropriate for year 2 children). - An object made of wood is classed as dead.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Living, dead, object.

Lesson 2	
Learning Objective	To understand that some objects have never been alive.
Declarative Knowledge	- All objects are either living, dead or have never been alive. - Objects made of rock, metal and plastic have never been alive (again ignoring that plastics are made of fossil fuels).
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Never been alive, living, dead, object.

Lesson 3	
Learning Objective	To describe how habitats provide the basic needs for different animals and plants.
Declarative Knowledge	- Animals and plants live in a habitat to which they are suited which means that animals have suitable features that help them move and find food and plants have suitable features that help them to grow well. - The habitat provides the basic needs of the animals and plants – shelter, food and water.
Procedural Knowledge	Communicating findings.
Key Vocabulary	Habitat, suitable, food, shelter, water.

Lesson 4	
Learning Objective	To identify and name a variety of animals and plants in a habitat and micro-habitat.
Declarative Knowledge	- Within a habitat there are different micro-habitats e.g. in a woodland – in the leaf litter, on the bark of trees, on the leaves. - These micro-habitats have different conditions e.g. light or dark, damp or dry. - These conditions affect what plants and animals live there.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Habitat, micro-habitat, types of habitats, types of micro-habitats.

Lesson 5	
Learning Objective	To use a food chain to explain what animals eat.
Declarative Knowledge	- The way that animals obtain their food from plants and other animals can be shown in a food chain.
Procedural Knowledge	Communicating findings.
Key Vocabulary	Food chain, feed, predator, prey.

Year 2 – Summer 2 – Animals inc. Humans

Lesson 1	
Learning Objective	To identify the offspring of a variety of different animals.
Declarative Knowledge	- Animals including humans have offspring which grow into adults. - Offspring means babies.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Offspring, child, growth, young, offspring words – chick, hen, puppy, etc.

Lesson 2	
Learning Objective	To find out about the different ways in which animals reproduce.
Declarative Knowledge	- In humans and some animals these offspring will be young, such as babies or kittens that grow into adults. - In other animals, such as chickens or insects, there may be eggs laid that hatch to young or other stages which then grow to adults - The young of some animals do not look like their parents e.g. tadpoles
Procedural Knowledge	Communicating findings.
Key Vocabulary	Reproduction, growth, parent, offspring, offspring words – chick, baby, tadpole.

Lesson 3	
Learning Objective	To explore how humans grow as they get older.
Declarative Knowledge	- Humans start as babies before growing into children. - Eventually they will grow into adults.
Procedural Knowledge	Recording data.
Key Vocabulary	Height, growth, child, young, old.

Lesson 4	
Learning Objective	To find out what animals, including humans, need to survive.
Declarative Knowledge	- All animals including humans have basic needs of feeding, drinking and breathing that must be satisfied in order to survive. - To grow into healthy adults they also need the right amounts and types of food and exercise.
Procedural Knowledge	Identifying and classifying.
Key Vocabulary	Survival, food, breathing, water.

Lesson 5	
Learning Objective	To find out how to eat a healthy, balanced diet.
Declarative Knowledge	- It is important to eat the right amount of food and not eat too much. - We should not eat too much of any type of food. - I can name examples of healthy foods.
Procedural Knowledge	Communicating ideas.
Key Vocabulary	Healthy, meat, fish, vegetables, bread, rice.

Lesson 6	
Learning Objective	To understand the importance of good hygiene.
Declarative Knowledge	- Good hygiene is also important in preventing infections and illnesses.
Procedural Knowledge	Communicating ideas.
Key Vocabulary	Hygiene, germs, disease, clean.