



Year group: 2 Topic: Living Things

**What should I already know?**

Living, alive and dead

Different classes of animals in Year 1

Basic terms what plants need to stay healthy

**What will I know by the end of the unit? (Substantive Knowledge)**

Explore and compare the differences between things that are living, dead, and things that have never been alive

Describe the characteristics of living things

Know that plants are living things

**Common misconceptions**

Children may overemphasise the idea of movement.

Some may think the branches of trees move because the tree is alive not because the (invisible) wind is blowing.

Key Vocabulary	
alive	human
animal	wormery
earthworm	soil
category	chalk
plant	sand
food	Leaves
Sort	Characteristic
senses	nutrition
living	Growth
non-living	excretion
classify	Sensitivity
natural	seed
stem	water
Growth	Excretion
leaves	roots
reproduction	characteristic
	nutrition

**Working Scientifically (Disciplinary Knowledge)**

observing closely, using simple equipment

identifying and classifying using their observations and ideas to suggest answers to questions

gathering and recording data to help in answering questions.



### What should I already know?

Identify and name a variety of common British animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.

Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

Describe and compare the structure of a variety of common animals.

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

### What will I know by the end of the unit? (Substantive Knowledge)

Notice that animals, including humans, having offspring which grow into adults.

Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).

Describe the importance for humans of exercise, eating the right amount of different types of food and hygiene.

### Common misconceptions

That food is energy - use 'food as fuel for energy' instead.

That all animals come from their mother.

### Key Vocabulary

Mammals	Germ
Eggs	Bacteria
Birth	Cleanliness
Hatch	Wellbeing
Development	Health
Baby	Changes
Toddler	Protein
Teenage	Calcium
Growth	Carbohydrates
Warmth	Energy
Air	Fats
Breathe	Balanced diet
Nutrition	Healthy

### Working Scientifically (Disciplinary Knowledge)

Observing closely newly hatched eggs, lambs with their mothers or birds feeding.

Use observations to answer questions about animal growth.

Gather and record data by drawing or taking photographs

Sort and classify foods



Year group: 2 Topic: Materials

### What should I already know?

In year 1 pupils learned vocabulary to describe material properties.

They carried out simple tests on materials and sorted them in order by property.

They investigated the best material to make a particular object.

### What will I know by the end of the unit? (Substantive Knowledge)

To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

### Key Vocabulary

Material properties	Lycra
Force	Stone
Wood	Steel
Glass	Brick
Metal	Paper
Fabric	Aluminium
Plastic	Clay
Wool	Bone
Stone	Brick
Brick	Cardboard
Rubber	Carbon fibre
Opaque	Inventor
Malleable	Strength
Transparent	Chart
Flexible	Fair test
Rigid	Results
Suitable/unsuitable	Data
Appropriate	Conclusion
	Evaluation
	Improvements

### Common misconceptions

Children sometimes use circular arguments when matching a material and its use, e.g. we use wood for making tables because it's a good material to make tables from.

### Working Scientifically (Disciplinary Knowledge)

Ask simple questions and recognise that they can be answered in different ways.

Perform simple tests

Identify and classify

Use observations and ideas and to suggest answers to questions.

Gather and record data.



Year group: 2 Topic: Plants

### What should I already know?

Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.

Identify and describe the basic structure of a variety of common flowering plants, including trees.

### What will I know by the end of the unit? (Substantive Knowledge)

Observe and describe how seeds and bulbs grow into mature plants.

Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

### Common misconceptions

Some children may still think that seeds contain miniature plants waiting to grow.

### Key Vocabulary

leaf  
stem  
root  
bud  
warmth  
wilt  
shrivel  
compost  
sprout  
germinate  
taproot  
edible  
temperature  
annual  
biennial  
perennial  
evergreen  
deciduous  
propagator  
evaluate

### Working Scientifically (Disciplinary Knowledge)

Ask simple questions and recognise that they can be answered in different ways.

Observe closely, using simple equipment.

Use observations and ideas to suggest answers to questions.

Gather and record data.