

## Why are humans not like tigers? **BIOLOGY**

Term: Autumn 1 and Autumn 2

### Statutory NC Objectives:

- Y1 PoS : **Animals including humans**
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals;
- 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 (fish, amphibians, reptiles, birds and mammals, including pets)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

### Key Vocabulary

### Knowledge Overview

#### ANCHOR WORDS

**Birds** – all birds have a beak, feathers, two legs and wings.

**Feathers** – cover some animals’ skin and keep them warm and dry.

**Fish** – fish live and breathe under water. They have scaly skin, fins to help them swim and they breathe through gills.

#### GOLDSILKS WORDS

**Diet** – the foods we eat.

**Senses** – animals have 5 senses: sight, touch, taste, hearing, smell

**Skin coverings** – the different types of skin that cover the body.

**Scales** – small, thin pieces that protect the skin of some animals.

#### STEP ON WORDS

**Carnivore** – animals that mostly eat other animals (meat)

**Herbivore** – animals that only eat plants.

**Omnivore** – animals that eat plants and other animals (meat).

**Reptiles** – all reptiles breathe air and have scales on their skin.

**Amphibians** – amphibians live in the water as babies and on land as they grow older. They have smooth, slimy skin.

**Mammals** – animals that breathe air, grow hair or fur and feed on their mother’s milk as a baby.

#### By the end of this unit, the pupils should know that:

- Animals have different structures, e.g. – wings, tails, ears etc.
- **Animals can have different skin coverings, e.g. – scales, feathers, hair etc.**
- A carnivore is an animal that eats meat and other animals.
- A herbivore is an animal that eats plants.
- An omnivore is an animal that eats meat and plants.
- **Animals can be sorted in to 5 groups (mammals, fish, reptiles, birds, amphibians)**
- Examples of mammals are: humans, cats, giraffes
- Examples of fish are: sharks, goldfish, clown fish
- Examples of reptiles are: lizards, snakes, turtles
- Examples of birds are: penguins, owls, chickens
- Examples of amphibians are: toads, frogs, salamanders
- Humans have key body parts in common but that these vary from person to person, e.g. – hair colour, eye colour, height
- **Humans have 5 senses – sight, touch, taste, hearing and smelling.**
- Each sense is linked to a part of the body.

#### **ESSENTIAL KNOWLEDGE**

## Y1 Science

**“Bridging Back”** (previous years/cross-curricular content) **(EY)**

### **Understanding the World**

Explore the natural world around them, making observations and drawing pictures of animals and plants.

### **Reception**

**Which mini-beasts can we see in our school grounds? How do caterpillars turn into butterflies?**

Record what they find using a simple counting system.

Name mini-beasts found.

Understand the life cycle of a butterfly and use the technical vocabulary to describe the four stages.

Know that chicks hatch from eggs and they grow into chickens.

### **Nursery**

Know that a caterpillar turns into a pupa and a butterfly emerges from a pupa.

Know that chicks hatch from eggs.

**“Bridging Forward”** (future years/cross curricular content)

**Y2 PoS : Animals including humans: *What can we do to stay healthy?***

- Notice that animals, including humans, have 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 amounts of different types of food, and hygiene.

**Which is your favourite season? PHYSICS**

Term: Spring 1

**Statutory NC Objectives:**

- Y1 PoS : **Seasonal changes**
- Observe changes across the four seasons;
- Observe and describe weather associated with the seasons and how day length varies.
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**Key Vocabulary**

**Knowledge Overview**

**ANCHOR WORDS**

**GOLDILOCKS WORDS**

**STEP ON WORDS**

**Weather** – the weather tells us about sunshine, rain, wind, snow and how warm it will be each day.

**Autumn** – in Autumn the days start to get shorter and darker. The leaves turn orange/brown and it gets colder.

**Forecast** – this is a prediction of what the weather might be like.

**Winter** – in Winter the days are short and there are less hours of sunlight. The weather is much colder.

**Spring** – in Spring the days begin to get lighter. We see plants begin to grow again and the weather gets warmer.

**Summer** – in Summer there is more sunshine. The day is long and the nights are short and the days are warmer.

**Sunrise** – this is the time of day when the sun comes up in the sky.

**Sunset** – this is the time of day when the sun goes down.

By the end of this unit, the pupils should know that:

- There are 24 hours in a day
- **Day length varies as the seasons change.**
- Days (daylight hours) are longer in summer (approx. 16 hours)
- Days (daylight hours) are shorter in winter (approx. 8 hours)
- **There are 4 seasons: spring, summer, autumn, winter**
- **The weather changes with the seasons.**
- In winter we expect weather such as: rain, snow, hail, sleet, wind, heavy cloud.
- It is usually colder in winter.
- In summer we expect weather such as: sunshine, blue skies, light clouds
- It is usually warmer in summer.
- When the weather changes, other things change in the environment, such as more insects are found in summer, there are less leaves on the trees in autumn/winter.
- People wear different clothes depending on the season.
- The weather forecast helps us to find out what the weather might be like that day/week.
- We can use tables and charts to present information about the weather.

**ESSENTIAL KNOWLEDGE**

## Y1 Science

	<p><b>Day length</b> – every day has 24 hours. But some days have more sunlight hours than others.</p> <p><b>Seasons</b> – a time of year. There are 4 seasons: Autumn, Winter, Spring, Summer</p>		
<p><b>“Bridging Back”</b> (previous years/cross-curricular content) <b>(EY)</b></p> <p><b><u>Understanding the World</u></b> Explore the natural world around them, making observations and drawing pictures of animals and plants. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. <b>Why are there so many leaves on the floor? How do we know it is spring?</b> <b>Reception</b> Children know that in autumn leaves fall off the trees, the weather gets colder and some animals start to hibernate. Children know that in winter some trees are bare, that the weather is cold and some animals hibernate over winter. Children know that in the spring buds appear on trees and plants start to grow. They know that lambs are born in the spring time and the weather starts to get warmer. Children know that in the summer the weather is warmer and lots of plants and flowers bloom. <b>Nursery</b> Children know that leaves fall off some trees in autumn. Children know that the weather is colder in the winter. Children know that plants start to grow in spring. Children know that it is warmer in the summer.</p>		<p><b>“Bridging Forward”</b> (future years/cross curricular content)</p> <p><b>Y2 Geography: <i>What are seasons?</i></b></p> <ul style="list-style-type: none"><li>• Weather changes and can be predicted</li><li>• Snow, ice, sleet is associated with winter months</li><li>• Sun, high temperatures and blue sky is associated with summer months</li></ul>	

## Which materials would you use to build an alien's spaceship? CHEMISTRY

Term: Spring 2

### Statutory NC Objectives:

- Y1 PoS : **Everyday materials**
- Distinguish between an object and the material from which it is made;
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock;
- Describe the simple physical properties of a variety of everyday materials;
- Compare and group together a variety of everyday materials on the basis of their simple physical properties.

Key Vocabulary			Knowledge Overview
<b>ANCHOR WORDS</b>	<b>GOLDILOCKS WORDS</b>	<b>STEP ON WORDS</b>	<p>By the end of this unit, the pupils should know that:</p> <ul style="list-style-type: none"> <li>• All objects are made of one or more materials.</li> <li>• Wood, plastic, glass, metal, water, rubber and rock are examples of different materials.</li> <li>• We can describe objects using their properties, e.g. – shiny, stretchy, rough, smooth etc.</li> <li>• Plastic can have different forms, e.g. – hard, rough, stretchy, bendy</li> <li>• Materials can be put in to groups depending on the materials they are made from.</li> </ul> <p><b>ESSENTIAL KNOWLEDGE</b></p>
<p><b>“Bridging Back”</b> (previous years/cross-curricular content) <b>(EY)</b></p> <p><b>Reception</b></p> <p>Children know how to sort and compare different materials.</p>			<p><b>“Bridging Forward”</b> (future years/cross curricular content)</p> <p><b>Y2 PoS : Use of everyday materials: Are all materials the same?</b></p> <ul style="list-style-type: none"> <li>• Sometimes the same material can be used to make different objects, e.g. – metal is used for tin cans, keys, cars etc.</li> <li>• All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task.</li> <li>• Properties of materials include things like being: hard, shiny, stretchy, soft, absorbent, transparent etc.</li> </ul>

**Which plants would Little Red Riding Hood find in our local park? BIOLOGY**

Term: Summer 1 and 2

**Statutory NC Objectives:**

- Y1 PoS : **Plants**
- 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.

Key Vocabulary			Key Knowledge
<p><b>ANCHOR WORDS</b></p> <p><b>Seed</b> – when seeds are planted, new plants grow.</p> <p><b>Leaf</b> – a leaf is usually green and attached to the stem of a plant.</p> <p><b>Flower</b> – the colourful part at the top of the stem. This is where the seeds are.</p> <p><b>Branch</b> – a woody stick that is grown on a tree. Usually holds the leaves.</p> <p><b>Petal</b> – each of the pieces of the flower.</p>	<p><b>GOLDBLOCKS WORDS</b></p> <p><b>Blossom</b> – a group of flowers on a tree or bush.</p> <p><b>Wild plants</b> – a plant that grows where the seed falls.</p> <p><b>Bud</b> – a small growth on plant that develops in to a lead or flower</p> <p><b>Bark</b> – a bark is a woody covering on the trunk.</p> <p><b>Fruit</b> – grown on plants. Can often be eaten by animals or humans.</p> <p><b>Stem</b> – the longer, thin part of the plant that holds up the flower.</p> <p><b>Trunk</b> – the main woody stem of a tree.</p> <p><b>Root</b> – at the bottom of a plant/tree. Grows in the soil.</p>	<p><b>STEP ON WORDS</b></p> <p><b>Evergreen</b> – a plant/tree that keeps its green leaves all year, even in winter.</p> <p><b>Deciduous</b> – a tree that loses its leaves each year.</p>	<p>By the end of this unit, the pupils should know that:</p> <ul style="list-style-type: none"> <li>• For a plant to grow it needs soil, water and sunlight</li> <li>• Wild plants grow around and near to our school – wherever their seeds fall.</li> <li>• Dandelions, daisies, buttercups and clovers are all examples of wild plants.</li> <li>• Evergreen trees keep its green leaves all year round, even in winter.</li> <li>• Deciduous trees lose their leaves each year (in Autumn/Winter)</li> <li>• Evergreen leaves are: thick, waxy, small and narrow like needles.</li> <li>• Deciduous leaves are: broad, flat and have veins running through them.</li> <li>• Oak, ash and birch trees are likely to grow in our local area.</li> <li>• Plants have common parts but they vary between different types of plants.</li> <li>• Plants have: leaves, a stem, seeds, roots and a flower.</li> <li>• Trees have: roots, a trunk, branches, leaves, fruit (sometimes)and twigs.</li> </ul> <p><b>ESSENTIAL KNOWLEDGE</b></p>

## Y1 Science

**“Bridging Back”** (previous years/cross-curricular content) **(EY)**

### **Understanding the World**

Explore the natural world around them, making observations and drawing pictures of animals and plants.

Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

### **How do we know it is spring?**

#### **Reception**

Children know that seeds need soil, water and warmth to grow.

#### **Nursery**

Children know that seeds need soil and water to grow.

**“Bridging Forward”** (future years/cross curricular content)

### **Y2 PoS : Plants – *How can we grow our own plants?***

- Plants can grow from either seeds or bulbs.
- Seeds and bulbs germinate and grow into seedlings.
- Some plants grow better in full sunlight whereas others are more suited to shade or partial light.
- Plants need water and space to grow and stay healthy.
- 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.