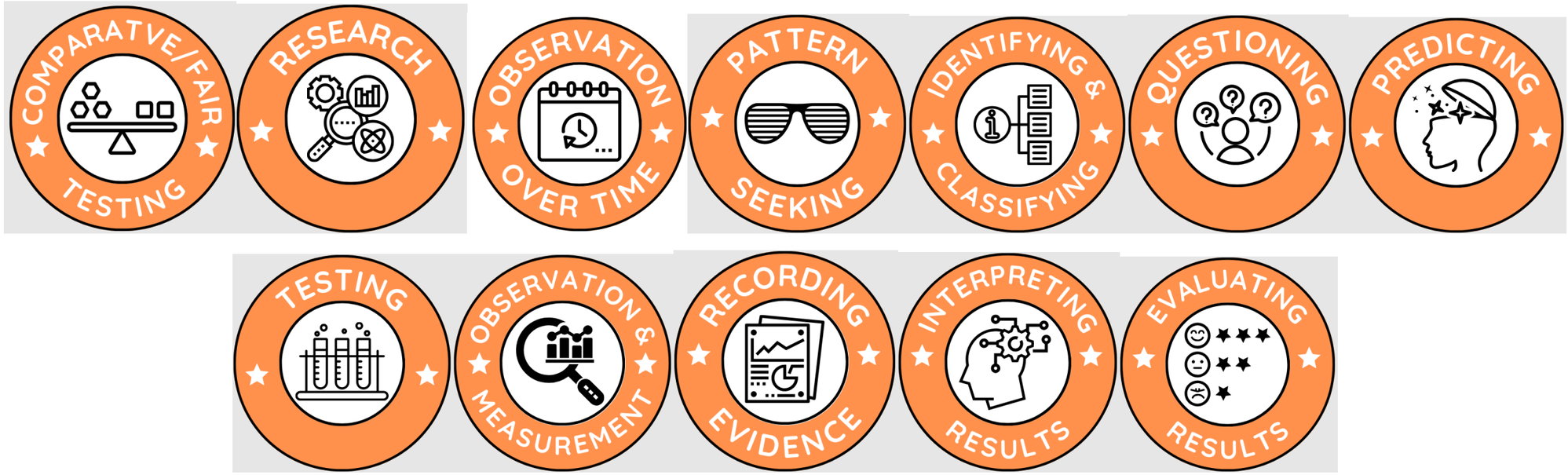
Breage CE School Curriculum
Subject: Science

We are committed to providing a curriculum that is underpinned by three essential drivers: aspiration, curiosity, and diversity. We aim to empower our learners to develop the knowledge, skills, and values they need to not only succeed in their education but also to become successful global citizens. Through our rigorously and consciously crafted curriculum, we teach clear sequences of enquiry-based learning encompassing the National Curriculum, reflecting the unique and special part of the world in which we live. We believe in helping our children flourish, realising their full potential, and fostering a caring and nurturing community where every child is valued.

Our Science Concepts



Curriculum Overview

EYFS CYCLE 1		
AUTUMN	**SPRING**	**SUMMER**

EYFS - Animals

Name different animals.
Know where different animals live.
Know what animals need to survive.
Compare animals.

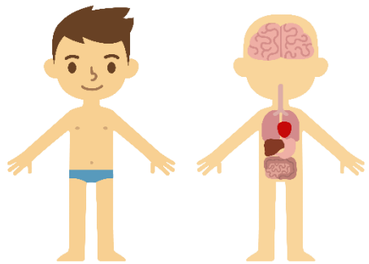
Seasons

Understand some of the changes we can see in the natural world and the differences in the seasons and weather.
Explore the impact of the weather and seasons on their day to day life.

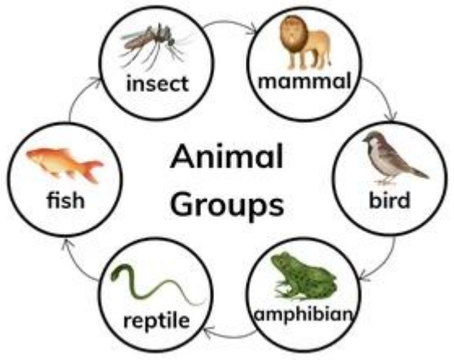
Plants

Know that plants are living things.
Explore plants around them.
Plant and grow their own plants.

EYFS CYCLE 2

AUTUMN	SPRING	SUMMER
 **Our Body** Explore the body, learning the names and functions of the main body parts. Discuss how the body changes as they grow and how we need a healthy diet. Explore similarities between themselves and others and how they are all unique.	 **Materials** Know what is living and not living. Know that some materials can change shape. Explore and understand what 'waterproof' means. Explore materials that float and sink.	 **Growing** Know what plants need to grow. Plant and grow their own plants. Observe plants growing and changing over time. Know the life cycle of a plant.

Key Stage 1 CYCLE 1

AUTUMN	SPRING	SUMMER
 **Why do seasons change (Autumn / Winter)?** *Note, seasonal changes discussed throughout the year and through CP* 1. What are signs of Autumn? 2. What is the weather like in Autumn? 3. What are signs of Winter? 4. What is the weather like in winter? 5. What happens to the day length in winter?	 **Why do we use different materials for different things?** 1. What are materials? 2. How are materials di-fferent? 3. What are the properties of materials? 4. How can materials change shape? 5. How can we sort materials? 6. Which material would be best for an umbrella?	 **How can we identify different plants and trees?** 1. What will happen when we plant a bean? 2. What is a plant? 3. What are the parts of a plant called? 4. Are all plants the same? 5. Are trees a type of plant? 6. How can we identify different plants and trees?
 **How can we group animals?** 1. What is this animal? 2. How are animals different? 3. Do all animals eat the same thing? 4. What are our body parts called? 5. What are senses? 6. Are all humans the same?	 **What happens when seasons change? (Spring / Summer)** 1. What are signs of Spring? 2. What is the weather like in Spring? 3. What are signs of Summer? 4. What is the weather like in Summer? 5. Why do the days get longer in Summer?	 **How are living things adapted to their habitat?** 1. Is it living, dead or never been alive? 2. What is a microhabitat? 3. How are habitats different around the world? **4.** What conditions do woodlice prefer? 5. Can we find out what animals eat in their 6. How are living things adapted to their habitat?

Key Stage 1 CYCLE 2

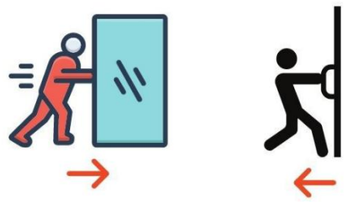
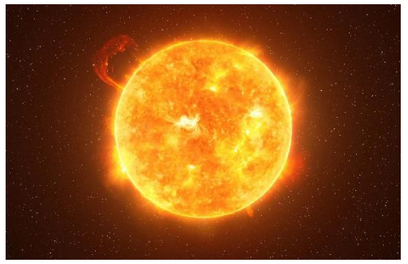
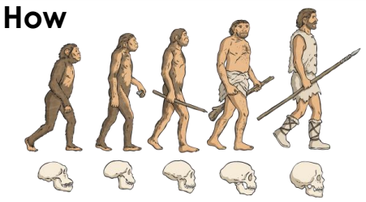
AUTUMN	SPRING	SUMMER
 **Can we name the parts of our body and describe our senses?** 1. Can we identify some parts and functions of the human body? 2. What can we learn about our ears and hearing? 3. Can we explore our tongue and taste? 4. Can we explore our sense of touch? 5. How does our nose smell? 6. Can we name the parts of our body and describe each of the five senses?	 **Which material is best to make a boat?** 1. What are materials? 2. Why are things made from different materials? 3. Can we change materials? 4. Which materials float and sink? 5. Does a boat need to be waterproof? 6. Which material is best to make a boat?	 **How do seeds and bulbs grow into healthy plants?** 1. Which plants can we eat? 2. Are all seeds the same? 3. What do seeds and bulbs need to grow? 4. How and why do seeds disperse? 5. Where will plants grow best? 6. How do plants grow and change? 7. How do we grow cress? 8. Can we observe changes to our cress seeds? 9. Describe the life-cycle of a plant 10. How do seeds and bulbs grow into healthy plants?
 **Why do we need to keep healthy?**	 **What do animals need to stay alive?**	

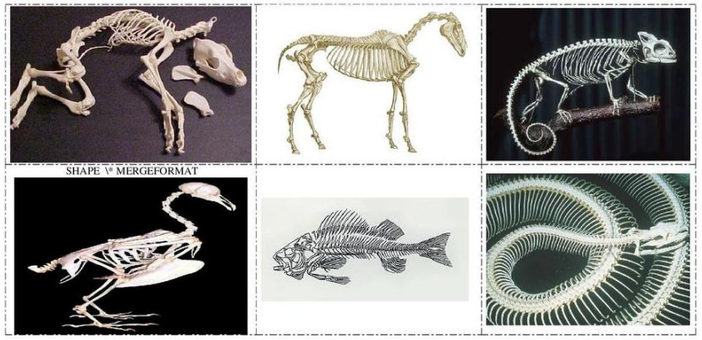
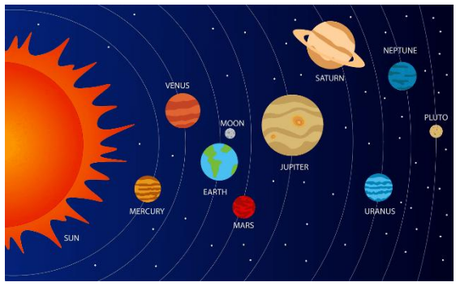
1. What do humans need to survive? 2. What are offspring? 3. How do humans change as they grow into adults? 4. Do we all grow the same? 5. Do we need to exercise? 6. Why do we need to stay healthy and be hygienic?	1. How do I know if something is alive, dead or never been alive? 2. How is new life made? 3. Do animal offspring look the same as their parents? 4. How do animals grow and change? 5. What is a lifecycle? 6. What do animals need to stay alive?	

Curriculum Overview

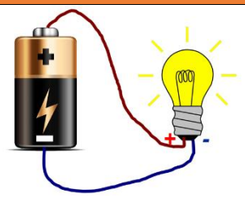
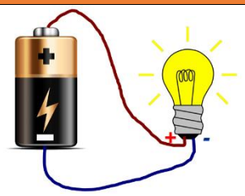
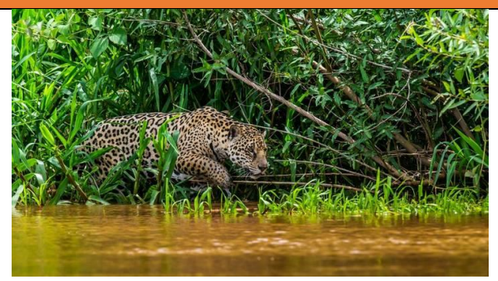
KS2

Key Stage 2 CYCLE 1

AUTUMN	SPRING	SUMMER	
 **How do forces help us?** 1. How do objects move on different surfaces? 2. Do forces need contact? 3. Do magnets always attract? 4. Which materials are magnetic? 5. How do forces help us?	 **What if the sun didn't shine?** 1. What is a light source? 2. Which materials are reflective? 3. How are shadows formed? 4. How can I change the size of a shadow? 5. How can I stay safe in the sun? 6. What if the sun didn't shine?	 **Do plants eat?** 1. What do plants need to survive? 2. What are the parts of a plant? TAPS assessment – Close observation of a flowering plant (year 3) 3. What are the functions of the different parts? 4. How do plants use and transport water? 5. What is the life cycle of a plant?	How  **has life changed over time?** 1.How do offspring vary and which are not identical to their parents? 2.How do animals adapt to their environment and how do their adaptations help them to survive? 3.How are plants adapted to their environment and how do their adaptations help them to survive?

		6. How do plants reproduce? 7. TAPS assessment – flower sampling (year 6)	4.What can we learn from fossils? 5.What is the theory of evolution by natural selection? 6.How have humans evolved?
 **Are we what we eat?** 1. What are the 5 key food groups? 2. What nutrition is in the food we eat? 3. What are the different types of skeletons? 4. Which bones are in the human skeleton? 5. Which bones are in animal skeletons? 6. What roles do muscles play in moving?	 **What makes our solar system so special and how does it affect life on Earth?** 1. Can I name the order of the planets and recognise their characteristics? 2. Can I explain about the heliocentric nature of the solar system? 3. How does the Earth move around in space? 4. Can I explain how the Earth's rotation gives us day and night? 5. Can I explain the movement of the moon and how the phases are created? 6. What makes our solar system so special and how does it affect life on Earth?	 **Do rocks talk to us?** 1. What are rocks? 2. What are the different types of rocks? 3. What are the properties of different types of rock? 4. TAPs assessment 5. How are fossils formed? 6. What is soil?	

Key Stage 2 CYCLE 2

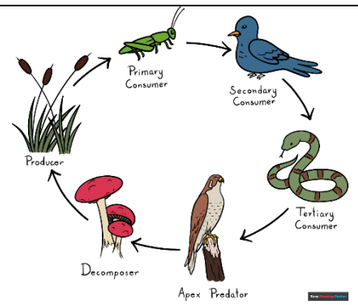
AUTUMN		SPRING	SUMMER
 **What happens when I turn a switch on?** 1. What is electricity? 2. How can we make electricity safe? 3. Good conductor, bad conductor? Y3/4 - TAPS assessment – Does it conduct electricity? 4. Can I solve an electrical problem? 5. Y3/4 - How can I turn a lamp on and off? 6. Y3/4 - Can I turn a door into an alarm?	 **Do I have the power to control electricity?** 1. What is electricity? 2. How can we make electricity safe? 3. Good conductor, bad conductor? Y5/6 - TAPS assessment – Conductor dough 4. Can I solve an electrical problem? 5. Can I change the brightness of a lamp? 6. Can I affect how quickly a motor spins?	 **What animal am I most like?** 1. How well do I know the animals around me? 2. How do life cycles differ between living things? 3. Does reproduction always occur in the same way? 4. What's the point in 'grouping' or 'classifying' living things? 5. What's the best way to group (classify) the living things around me? 6. How different are living things really?	 **What is sound?** 1. How does sound travel? 2. How do we hear things? 3. How are different sounds made? 4. Why do sounds have different pitch? TAPS assessment. 5. Can you hear me?

How many miles does my food travel?

1. Are these your teeth?
2. How can I keep my teeth healthy?
3. What happens to my food?
4. How many miles does my food travel? (TAPS assessment – Digestion modelling).

Why can't I hold gases?

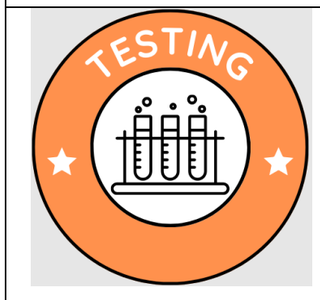
1. What state am I?
2. What is a particle?
3. Can something be more than one state?
4. Investigation. (heating and cooling)
5. How does this affect our weather? (Water cycle)



Who is at the top of the food chain?

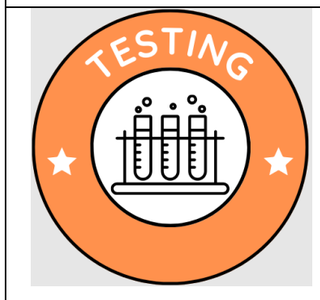
1. What is a food chain?
2. What role do producers play in a food chain?
3. What role do consumers play in a food chain?
4. Can you describe predators and prey?
5. Who is at the top of the food chain?

KS1 Skills Coverage	Cycle 1 Autumn	Cycle 1 Spring	Cycle 1 Summer	Cycle 2 Autumn	Cycle 2 Spring	Cycle 2 Summer
						
						
						
						

 IDENTIFYING & CLASSIFYING						
 QUESTIONING						
 PREDICTING						
 TESTING						
 OBSERVATION & MEASUREMENT						

 RECORDING EVIDENCE						
 INTERPRETING RESULTS						
 EVALUATING RESULTS						

KS2 Skills Coverage	Cycle 1 Autumn	Cycle 1 Spring	Cycle 1 Summer	Cycle 2 Autumn	Cycle 2 Spring	Cycle 2 Summer
						
						
						
						

 IDENTIFYING & CLASSIFYING						
 QUESTIONING						
 PREDICTING						
 TESTING						
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