

Science Curriculum

KS1 Knowledge Organisers

Knowledge Organiser

Science Strand: Humans **Year:** B **Term:** Autumn

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know the names of the basic parts of the human body.	N	To know the human life cycle.	N
To know the names of the five senses and which part of the body it is associated with.	N	To know what humans need to survive.	N
To know about the sense of smell and taste.	N	To know the names of parts of the human body.	N
To know what humans need to survive.	N/H	To know the job roles of parts of the human body (ribs, skull, muscles, bones, skin, brain, heart, lungs) and link body parts to the senses.	N
To know the names and talk about immediate and extended family.	N	To know the effect exercise has on the body.	N
To know what is needed to stay healthy (e.g. exercise, food, vitamins).	N/H	To know how to ask simple questions and make predictions based on previous experiences and knowledge.	N
To know about the different food groups and the importance of eating a well-balanced diet.	N/H	To carry out Plan, Do, Review to investigate or make observations.	C
To know how to plan a simple investigation.	N	To know how to record data using simple charts and tables.	C/N
To know how to carry out a simple investigation and record the results.	C/N	To know how to talk about what has been found and identify patterns and relationships.	N
To know the importance of exercise.	N/H	To know the importance of a healthy, balanced diet.	N/H

Key Vocabulary	
human	a human being.
senses	a faculty by which the body perceives an external stimulus; one of the faculties of sight, smell, hearing, taste, and touch.
bones	any of the pieces of hard whitish tissue making up the skeleton in humans and other vertebrates.
muscle	a band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body.
skeleton	an internal or external framework of bone, cartilage, or other rigid material supporting or containing the body of an animal or plant.
exercise	activity requiring physical effort, carried out to sustain or improve health and fitness.
predict	say or estimate that (a specified thing) will happen in the future or will be a consequence of something.
record	set down in writing or some other permanent form for later reference.
healthy	in a good physical or mental condition; in good health.
diet	the kinds of food that a person, animal, or community habitually eats.
family	a group of one or more parents and their children living together as a unit
survive	continue to live or exist
life cycle	the series of changes in the life of an organism including reproduction.
organ	a part of an organism which is typically self-contained and has a specific vital function.

Useful Diagrams

Diagram 1

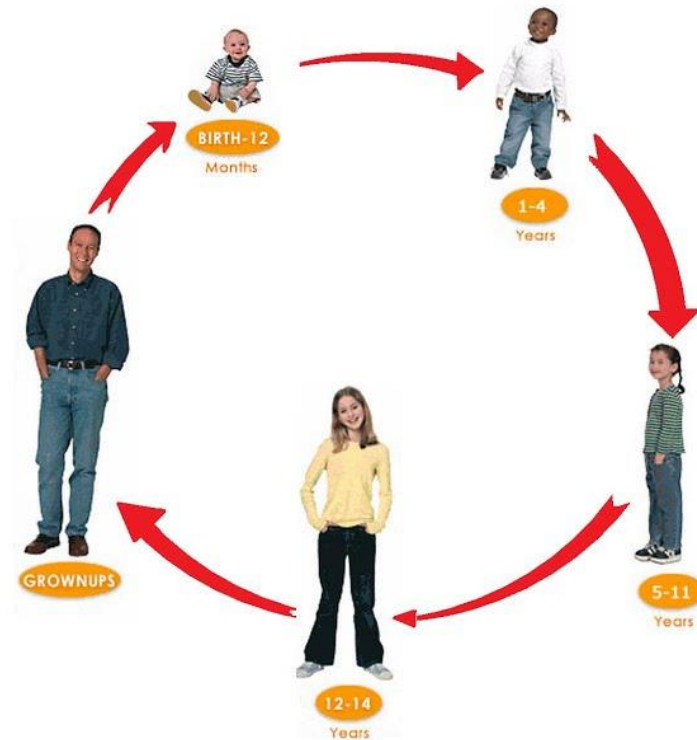


Diagram 2

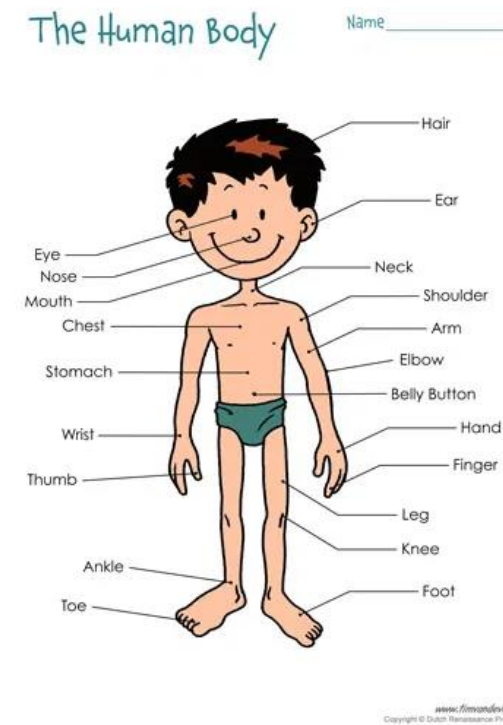
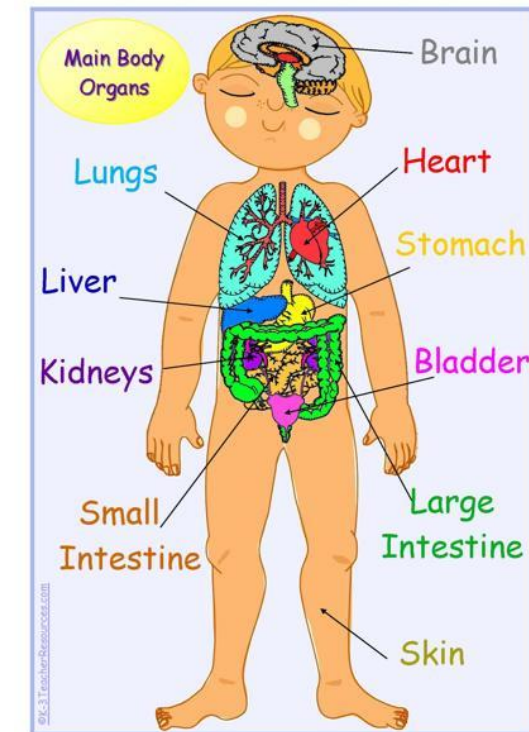


Diagram 3



Useful Websites or Resources

<https://www.bbc.co.uk/bitesize/clips/zsjsbk7>
<https://www.bbc.co.uk/bitesize/topics/z9yycdm/articles/zxvkd2p>
<https://wordwall.net/resource/235893/english/body-parts>
<https://wordwall.net/resource/3643985/body-parts>

Knowledge Organiser

Science Strand: Seasonal Changes **Year:** B **Term:** Spring

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know the different types of weather and the symbols	N	To know the 4 seasons and identify similarities and differences.	N
To know the name of the 4 seasons.	N	To know how plants and trees change throughout the year.	N
To know how to observe, record and discuss the weather.	N	To know different types of weather and the symbols associated with them.	N
To know that we wear different clothes in winter than in summer, and why we do this	N	To know how to write a weather report.	N
To know how trees change with the seasons	N	To know the weather for a location using a weather map.	N
To know how to design a weather station -make a rainfall gauge and record the results	N / C	To know how the hours of daylight change throughout the year and discuss the reason behind this.	N
To know how to make a windsock to measure wind direction	N / C	To know about and use a simple rain gauge to collect information about the weather.	N
To know how to observe and record rainfall / wind direction over time and notice patterns between rainfall and wind, and changes in direction.	N / C	To know how to display our results in a simple table and block graph.	C

Key Vocabulary	
Rain	drops of water that form in the clouds and fall from the sky to the Earth
Snow	soft, white flakes of ice that fall from the sky to the Earth.
Storm	a violent disturbance in the atmosphere that brings rain, snow, wind, thunder, or lightning
Thunder	the loud cracking noise or low distant rumble that follows a flash of lightning
Lightning	natural electricity produced in thunderclouds
Cold	without heat or warmth
Warm	having or giving off some heat
Forecast	to state as likely to happen; predict
Summer	the warmest season of the year, falling between spring and autumn
Autumn	the season of the year between summer and winter; fall
Winter	the season of the year between autumn and spring
spring	a season of the year between winter and summer
Seasons	one of the four parts of the year; spring, summer, fall, and winter; a certain part of the year that is marked by a particular condition or activity
Rainfall	the amount of rain that falls over a certain area during a certain period of time

Useful Diagrams		
Diagram 1	Diagram 2	Diagram 3

Useful Websites or Resources
www.bbc.co.uk/wales/bobinogs/games/game.shtml?1
www.bbc.co.uk/learningzone/clips/the-changing-seasons-apples/10449.html
https://www.bbc.co.uk/bitesize/topics/zkvv4wx/articles/zcx3gk7
https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-wonders-of-nature-the-changing-seasons/zh4rkmn

Knowledge Organiser

Science Strand: Animals (including humans) **Year:** B **Term:** Summer

Learning Objectives – Knowledge			
C1 - Year R/1	Key Driver	C2 - Year 1/2	Key Driver
To know that the young of humans and animals can have different names.	N	To know that the young of humans and animals can have different names and their differences when they are born e.g. a human baby can see and hear, a puppy is born with their eyes sealed as their eyes are not mature until 10-16 days old, some animals hatch from eggs.	N
To know the difference between an invertebrate and a vertebrate		To know the difference between an invertebrate and a vertebrate and identify them by their external features and the way they move.	N
To know how animals can be classified as carnivores, herbivores and omnivores.	N	To know that animals can be classified into different groups based on their features e.g. animals with skeletons, animals with feathers, animals that can breathe underwater, animals that lay eggs etc.	N
To know that animals can be classified into different groups (fish, amphibians, reptiles, birds and mammals) and their different features	N	To know that animals (including humans) can be classified into different groups (fish, amphibians, reptiles, birds and mammals).	N
To know the names of the basic parts of the human body.	N	To know how to use a simple classification key to identify animals.	N
To know what is needed to be healthy and clean.	N	To know the basic needs of an animal.	N
To know that we have different ways of exploring the world and that often our senses work together to help us do that.	N	To know how to draw and label parts of the human body.	N / H
To know which parts of the body we use to see, hear, taste, smell and feel.	N	To know which organs are linked to our senses.	N /H
To know that we taste with our tongue and that taste is one of our senses.	N	To know how exercise and a balanced diet can lead to a healthy lifestyle for humans.	N/ H
To know that we hear sounds with our ears and that hearing is one of our senses.	N	To know how to keep our teeth healthy and the importance of personal hygiene.	N/ H
To know that we have different ways of exploring the world and that often our senses work together to help us do that.	N		N/ H

Key Vocabulary	
senses	any of five ways to understand or experience one's surroundings. The senses are touch, smell, taste, sight, and hearing.
taste	to experience and recognize the flavour by putting it into the mouth.
tongue	the movable organ in the bottom of the mouth, used for licking, tasting, swallowing, and human speech.
ears	the organ of hearing in people and some other animals.
hear	to receive sound with the ears.
sight	the ability to see.
eyes	the organ of the body that gives animals sight, and the area close around it.
smell	to sense the odour by means of the nose.
nose	the part of the face on people and certain animals through which they breathe and smell.
touch	to put one's hand or fingers on in order to feel
fish	an animal that lives in water and has fins for swimming and gills for breathing. Fish are cold-blooded animals with skeletons inside their bodies. Most fish have scales on their skin. There are many kinds of fish, including salmon, goldfish, tuna, and sharks.
amphibians	a small animal that spends part of its life cycle in water and part of its life cycle on land. Amphibians hatch in water and breathe with gills. Then they develop lungs so the adults can breathe air. Amphibians are cold-blooded animals with skeletons inside their bodies. Frogs, toads, and salamanders are amphibians.
reptiles	a cold-blooded animal with a skeleton inside its body and dry scales or hard plates on its skin. Most reptiles lay eggs with soft, leathery shells. Some kinds of reptiles live in water, but use their noses to breathe air into their lungs. Lizards, turtles, snakes, and crocodiles are kinds of reptiles. Most reptiles have short legs, but snakes creep on the ground without legs.
birds	an animal with two wings, two feet, and a body covered with feathers. Most birds can fly. Birds are warm-blooded animals with skeletons inside their bodies. Birds lay eggs with hard shells. Robins, eagles, chickens, and ostriches are a few of the many kinds of birds.
mammals	a warm-blooded animal with fur or hair on its skin and a skeleton inside its body. Mammal mothers produce milk to feed their babies. Most mammals have four legs or two arms and two legs. Dogs, cows, elephants, mice, whales, and humans are all mammals.
carnivores	an animal that eats the flesh of other animals.
herbivores	an animal that only feeds on plants.
omnivores	an animal that lives on a diet of both plant and animal food.
invertebrate	an animal that does not have a backbone or skeleton inside its body. Insects, spiders, worms, snails, clams, crabs, and squids are some kinds of invertebrates.
vertebrate	an animal that has a skeleton with a backbone inside its body. Mammals, birds, amphibians, reptiles, and fish are large groups of vertebrates.
hygiene	the practice of keeping clean to stay healthy and prevent disease.
classify	arrange in classes or categories according to shared characteristics or qualities.

Useful Diagrams

Diagram 1

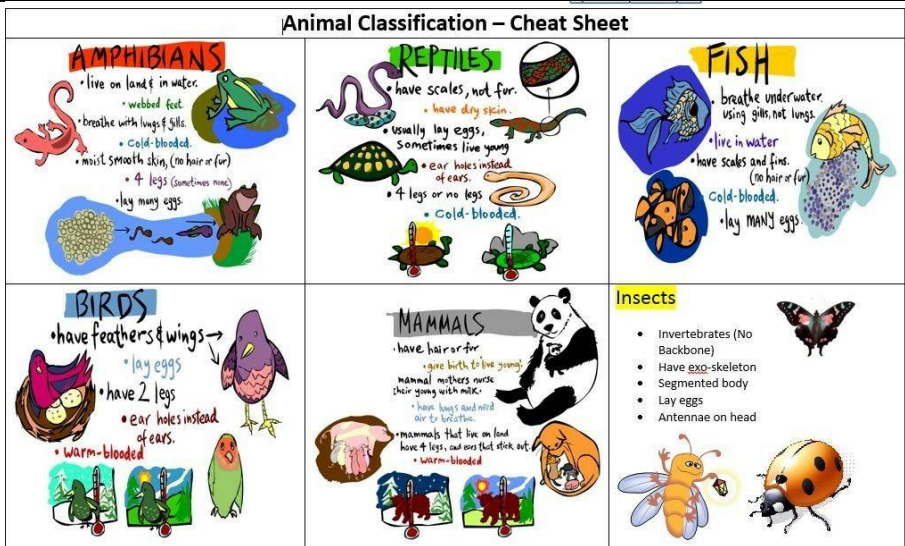


Diagram 2

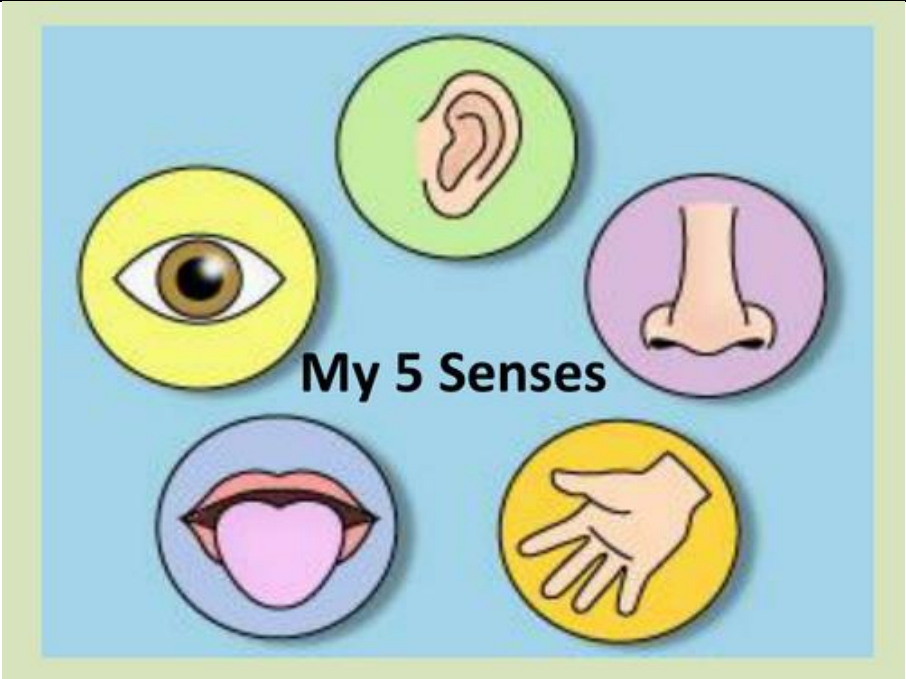


Diagram 3



Useful Websites or Resources

www.bbc.co.uk/bitesize/clips/zsjsbk7

<https://www.youtube.com/watch?v=aOebfGGcjVw> - The importance of brushing our teeth.

<https://www.youtube.com/watch?v=gwH8xGmqGmo> - Classifying animals.

<https://www.youtube.com/watch?v=pap2a3PSkbw> - BBC Identifying animals based on their features.