

Year 3: Animals

What should I already know?

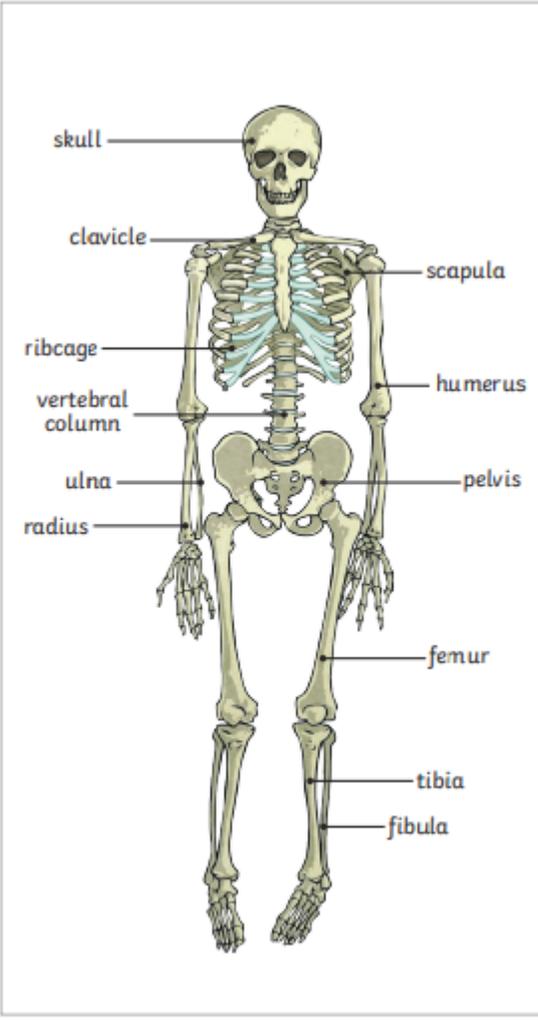
Know that animals, including humans, have offspring, which grow into adults
 Know the basic stages in a life cycle for animals, including humans.
 Find out and describe the basic needs of animals, including humans, for survival (water, food and air).
 Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Science - science is A subject where you ask questions about how the world works and find out the answers

National Curriculum Objectives:

- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Significant Information

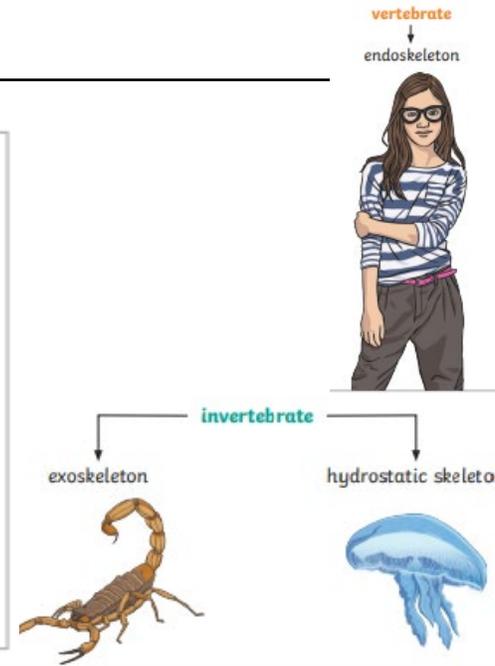
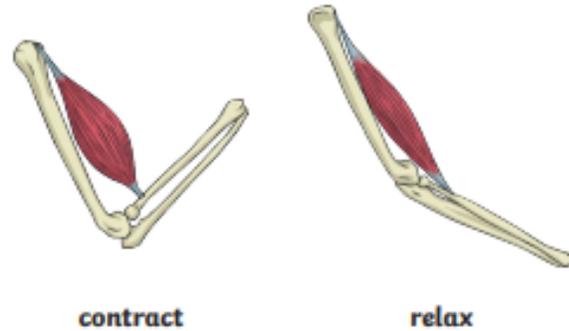


Powerful knowledge

Skeleton Jobs:

- Protect organs inside the body
- Allow movement
- Support the body and stop it from falling on the floor.

Skeletal **muscles** work in pairs to move the bones they are attached to by taking turns to contract (get shorter) and relax (get longer).



Interesting Facts - The human skeleton has 206 bones! Pythons have the most bones. They have around 600 vertebrae, which equals around 1800 bones! Sharks have the least amount of bones! They only have their jaws!

Glossary/Key Questions

Vertebrate	animals with backbones
Invertebrate	animals without backbones
Skeleton	The bones that make up your body.
Exoskeleton	An exoskeleton is a hard covering that supports and protects the bodies of some types of animals. The word exoskeleton means "outside skeleton."
Nutrients	substances that living things need to stay alive and healthy
Saturated Fats	types of fats, considered to be less healthy, that should only be eaten in small amounts
How do animals move?	
How do animals stay healthy?	
How can I get stronger muscles?	

Nutrient	Found in... (examples)	What it does/they do
carbohydrates		provide energy
protein		helps growth and repair
fibre		helps you to digest the food that you have eaten
fats		provide energy
vitamins		keep you healthy
minerals		keep you healthy
water		moves nutrients around your body and helps to get rid of waste



Significant People: Vera Mikhailovna Danchkoff

1879 - 1950

Vera was Russian anatomist, cell biologist and embryologist. In 1908 she was the first woman in Russia to be appointed as a professor and she became a pioneer in stem cell research. She moved to USA in 1915 where she was leading research that all types of blood cell develop from a single type of cell. She has sometimes been called "the mother of stem cells".

- Living things need food to grow and to be strong and **healthy**.
- Plants can make their own food, but animals cannot.
- To stay **healthy**, humans need to exercise, eat a **healthy** diet and be hygienic.
- Animals, including humans, need food, water and air to stay alive.

Science Year 3 - Animals Including Humans

<p>National Curriculum Objectives:</p> <ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>Prior Objectives:</p> <ul style="list-style-type: none"> Know that animals, including humans, have offspring, which grow into adults Know the basic stages in a life cycle for animals, including humans. Find out 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.
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<p style="text-align: center;">Lesson 1</p> <p style="text-align: center;"> Skill - Group</p> <p style="text-align: center;"> Knowledge - Name the 5 food groups.</p>	<p style="text-align: center;">Lesson 2</p> <p style="text-align: center;"> Skill - Group</p> <p style="text-align: center;"> Knowledge - Identify the foods that go into each group.</p>	<p style="text-align: center;">Lesson 3</p> <p style="text-align: center;"> Skill - Make observations</p> <p style="text-align: center;"> Knowledge - A vertebrate is an animal with a backbone.</p>	<p style="text-align: center;">Lesson 4</p> <p style="text-align: center;"> Skill - Identify</p> <p style="text-align: center;"> Knowledge - Name 5 bones in the body</p>	<p style="text-align: center;">Lesson 5</p> <p style="text-align: center;"> Skill - Explain</p> <p style="text-align: center;"> Knowledge - We need a skeleton to support, protect & help us move.</p>	<p style="text-align: center;">Lesson 6</p> <p style="text-align: center;"> Skill - Label</p> <p style="text-align: center;"> Knowledge - We need muscles to help us move</p>
<p><u>WALT:</u> Identify types of nutrition.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Ask questions -Name the food groups -Sort the food <p>What is your favourite food?</p> <p>Can you name any foods that are healthy?</p> <p>Children generate questions about humans and animals.</p> <p>Teach the nutrients the different food groups provide us.</p> <p>Recording-</p> <p>Chn write the food groups and match the food to the group.</p>	<p><u>WALT:</u> Group foods.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Name the food groups -Label the food -Show the amount of food <p>What would happen if we ate nothing but food containing sugar?</p> <p>Teach children about healthy proportions for humans.</p> <p>Discuss and compare the proportions for different animals.</p> <p>Recording-</p> <p>Children sort foods into groups and create a pie chart.</p> <p>Match the pie chart to the animal.</p>	<p><u>WALT:</u> Sort animals based on their skeletons.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Use observational skills -Give reasons for predictions -Draw a skeleton -Sort vertebrates and invertebrates. <p>Compare different skeletons and predict which animals they could be.</p> <p>Sort vertebrates and invertebrates.</p> <p>Which animal do you think this skull belongs to?</p> <p>What makes you think this is a ____?</p> <p>Do you notice anything about the teeth?</p> <p>Recording-</p> <p>Sketch skeletons to improve observational skills.</p> <p>Put skeletons into groups of vertebrates/invertebrates.</p>	<p><u>WALT:</u> Identify and name the bones.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Identify the bones -Know the name of bones -Know where bones are in the body. <p>Learn different songs and look at different pictures to research the names of bones.</p> <p>Play head shoulder knees and toes using the names of the bones.</p> <p>Play Simon says asking chn to point to where their bones would be.</p> <p>Recording-</p> <p>Children draw in the bones they already know and draw in the bones that they have learnt about at the end in a different colour.</p>	<p><u>WALT:</u> Explain the functions of a skeleton.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Put the bones in the right places. -Explain why we need a bones. -Label the bones <p>What would happen if we had no bones in our body?</p> <p>Chn role play what is would be like to have no bones.</p> <p>Compare slime and your body. What happens if you break a bone?</p> <p>Chn use different types of dog biscuits to create a human skeleton with all the bones.</p> <p>Recording-</p> <p>Make a skeleton using a string puppet that has moving joints.</p> <p>Write why we need a skeleton on speech bubbles.</p>	<p><u>WALT:</u> Understand the importance of muscles.</p> <p><u>WILF:</u></p> <ul style="list-style-type: none"> -Explain how muscles allow movement. -Draw the muscles. -Label the muscles. <p>Create model to help chn visualise.</p> <p>Cut out 2 pieces of stiff card (arm).</p> <p>Create holes in the 2 pieces & push through a paper fastener (will act as a pivot)</p> <p>Cut notches at the top of the upper arm & at either side of the elbow on the lower arm.</p> <p>Attach two elastic bands.</p> <p>Pulling one elastic band muscle will raise the arm while pulling the other lowers the arm.</p> <p>Recording-</p> <p>Draw/label the inside of an arm.</p>

Assessment Use the vocabulary mat to assess the children's prior knowledge and use the mats again to assess what the children have learnt.

Key Vocabulary: Nutrients, nutrition, food groups, carbohydrates, protein, fats, vitamins, minerals, water, proportions, fibre, skeleton, bones, joints, endoskeleton, exoskeleton, vertebrates, invertebrates, muscles, contract, relax,



nutrients



nutrition



food



groups



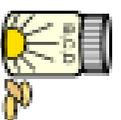
carbohydrates



protein



fats



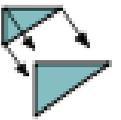
vitamins



minerals



water



proportions



fibre



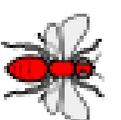
skeleton



bones



joints



exoskeleton



relax



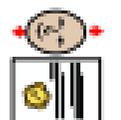
vertebrates



invertebrates



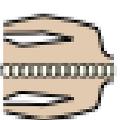
muscles



contract



skull



spine



femur