

Year 2 - Animals including Humans

Prior Learning	In Year 2 What they need to know	Later learning: Children do not need to be taught this year.	Key Vocabulary ASE
• Make observations of animals, explain why some things occur and talk about changes • 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	• 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, air) • Notice that humans have offspring which grow into adults • Find out about and describe the basic needs for survival (food, water, air) • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	In Year 3 pupils will be taught to: • 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 • Identify that 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 have skeletons and muscles for support, protection and movement	offspring, reproduction, growth, child, young, old, stages (examples - chick/hen, baby, child, adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples - meat, fish, vegetables, bread, rice, pasta) <i>tentative language: perhaps, maybe, I was wondering, Does anyone else think.....?</i>
		In Year 4 pupils will be taught to: • Construct and interpret a variety of food chains, identifying producers, predators and prey • Describe the simple functions of the basic parts of the digestive system in humans • *identify the different types of teeth in humans and their simple functions	
		In Year 5 pupils will be taught: • Describe the changes as humans develop to old age	

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		In Year 6 pupils will be taught: • Describe the ways in which nutrients and water are transported within animals (including humans) • Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Describe the ways in which nutrients and water are transported within humans (and other animals)	
Common Misconceptions: Some children may think: • an animal's habitat is like its 'home' • all animals that live in the sea are fish • respiration is breathing • breathing is respiration. • Sweets are bad for you and you should never eat them. • They eat different things but don't recognise food types.		Possible Famous Scientists to study within unit: Florence Nightingale Pioneer of modern nursing in GB Elizabeth Garrett Anderson - First British female physician and surgeon Steve Irwin -Wildlife expert Robert Winston Human Scientist	
Working Scientifically - What they need to be able to do			
1. Ask simple questions			
2. Recognise that questions can be answered in different ways			
3. Perform simple tests			
4. Observe closely			
5. Use simple equipment			

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6. Talk about what they have found out



Images taken from Primary-Science and PSTT.org

Identifying and Classifying 	Comparative Testing Fair Testing 	Pattern Seeking 	Research 	Observation over time 
Which offspring belongs to which animal? Based on the children's own criteria: ▪ classify food items ▪ classify animals	Which drinks are unhealthy for our teeth?	N/A	What do you need to do to look after a pet dog/cat/lizard and keep it healthy? What food do you need in a healthy diet and why? Research adult animals and their young e.g. googling pictures and names of animal babies - swan and cygnet. Which foods are healthy/unhealthy ?	How does a tadpole change over time? How much food and drink do I have over a week? Observe a life cycle (e.g. caterpillars, chicks, farm animals). Which drinks are unhealthy for our teeth? Observe how their body changes during/after exercise. What happens before, during and after exercise to my body?

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SNAP SCIENCE LINK:

Snap Science link to subject content - **Growing Up** (5 lessons)

Snap Science link to subject content - **Taking Care** (5 lessons)

Enrichment activities to be set as challenges weekend/half termly or additional enquiry opportunities

Main Enquiry type covered by SS: Identifying and Classifying, Research, Observations over time and Pattern Seeking.

Book Links:

I know how my cells make me grow.

The Demon Dentist.

Handas Surprise

The ugly Duckling

Tryannosaurus

Big Cat book links

Growing and Changing Teresa Heapy
978-0-00-741298-3
Band 4 Blue

As we grow up, our bodies grow and change with us.

Big Cat book links

Marathon John Foster
978-0-00-718689-1
Band 5 Orange

Find out all about one of the toughest and most popular running events.

Pupils could work scientifically by:

- Ask people questions and use secondary sources to find out about the life cycles of some animals.
- Observe animals growing over a period of time e.g. chicks, caterpillars, a baby.
- Ask questions of a parent about how they look after their baby.
- Ask pet owners questions about how they look after their pet.
- Explore the effect of exercise on their bodies.
- Classify food in a range of ways, including using the Eatwell Guide.
- Investigate washing hands, using glitter gel.

By the end of the unit children should know that.... (Sticky Knowledge)

- Animals move in order to survive.
- Different animals move in different ways to help them survive.
- Exercise keeps animal's bodies in good condition and increases survival chances.
- All animals eventually die.
- Animals reproduce new animals when they reach maturity.
- Animals grow until maturity and then don't grow any larger.

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_____ learns about how babies change as they get older through direct observations and by asking questions of a mother. _____ has the opportunity to see young animals during a farm trip and talks about how they change. _____ develops their understanding of how insects change (previously this was only in the context of a butterfly). _____ talks about what humans, and other animals need to survive, and also how he keeps himself clean and healthy. _____ can group foods and understands that they need to eat the right amount of different food types.

Secure learning indicators **PLAN knowledge matrices**

- Can state the basic needs of animals, including humans, for survival
- Can state the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
- Can name foods in each section of the Eatwell Guide
- Can describe how animals, including humans, have offspring which grow into adults, using the appropriate names for the stages

Please see www.ase.org.uk for PLAN supporting science assessment resources (found also in TEAMS)

Assessment Indicators for working scientifically in Year 2 - Using their observations and ideas to suggest answers to questions (e.g. comparing handspans)

Working Towards: Can make comparisons, e.g. saying which hand is smaller or larger.

Secure: Can make comparisons saying which hands are bigger and smaller and suggest reasons for this, e.g. his hand is bigger / he holds more cubes because he has had longer to grow.

Mastery: Can make predictions relating hand span to height, e.g. a year 6 boy will have bigger hands / will hold more cubes because.... Can raise further questions related to height that could be tested, e.g. when do your hands stop growing?

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Expected - name some common animals and their offspring, <i>e.g. sheep and lamb, horse and foal, dog and puppy, human and baby</i> - order the simple stages of a human life from birth to death, <i>e.g. baby, child, teenager, adult, elderly adult</i> - describes how a newly born animal (other than a human) changes as it grows and ages Expected - knows that an animal needs water, food and air in order to survive - knows that animals need air to breath and food and water to stay alive and healthy - explains the short term effect of not having water (thirst) and the short term effect of not having food (hunger) Expected - explains the word healthy and talks about a human that is unhealthy - knows that it is important to be healthy	Exceeding - names a wider range of animals and their offspring - knows that some animals give birth to live young, some lay eggs - knows that different animals live (on average) different lengths of time, <i>e.g. butterfly, dog, human</i> Exceeding - explains why an animal needs water, food and air - knows that animals can only survive for a very short time without air - knows the short term effects on an animal of having no water/having no food - knows that animals need shelter - explains the dangers to the health of an animal that does not have its basic needs - talks about animals in the wild that can no longer find food/shelter i.e. extinct or endangered species Exceeding - explains why exercise helps to keep a human healthy	<i>Please see primary science consultancy enrichment activities for additional resources in TEAMS, consider use of Activities - Explorify: Big Question, Mission Survive, problem Solvers, Mystery bag for challenging more able pupils.</i>
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• knows that exercise can help a human to stay healthy • knows that eating the right amount of different types of food can help humans to stay healthy. Knows that a human who only ever eats chips will not remain healthy • knows that having good hygiene (keeping clean) can help humans stay healthy	• has some knowledge of the term 'balanced diet' and knows that eating some of every food type can be beneficial to health • knows that eating too much of a particular food type can lead to a human becoming unhealthy, <i>e.g. obesity, diabetes</i> • explain the effects on a human body of not having good hygiene, <i>e.g. tooth decay, upset tummy, disease</i>	
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