

Subject: Science

Year 2: Life Cycles and Health

NC/PoS:

- 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.

Prior Learning (what pupils already know and can do)

Check the children can recall the following key facts from [\*Science, Year 1, Animals, including humans: Comparing animals.\*](#)

- Name and describe the physical features of a range of animals.
- Sort animals into groups based on their similarities and differences.
- Identify characteristics specific to mammals, birds, reptiles, amphibians and fish.

Children should also know:

Animals can be grouped into amphibians, reptiles, birds, mammals and fish. Different animals have different diets depending on whether they are a carnivore, herbivore or omnivore.

End Goals (what pupils MUST know and remember)

- Know all animals, need food, water, air, and shelter
- Know animals, need to stay fit by eating sensibly and taking regular exercise
- Know all animals, need to eat a balanced diet
- Know the food groups are carbohydrates, proteins, fats, fruits and vegetables and dairy
- Know all animals, have offspring which then grow into adults
- Know some offspring are different from their adults e.g., caterpillar-butterfly, tadpole-frog
- Know the four stages in a life are: birth, growth, reproduce and death
- Know animals also need exercise and sleep to keep a body healthy
- Know humans are hygienic to stop the spread of germs

Key Vocabulary:

offspring, adult, birth, growth, reproduce, death, metamorphosis, life cycle, food, water, air, oxygen, survive, survival, shelter, food groups, fruits and vegetables, carbohydrates, proteins, dairy, fats, balanced diet, sleep, exercise, hygiene, germs, physical

Session 1: review prior learning

Before starting this unit, check the children can recall the following key facts from [\*Science, Year 1, Animals, including humans: Comparing animals.\*](#)

- Name and describe the physical features of a range of animals.
- Sort animals into groups based on their similarities and differences.
- Identify characteristics specific to mammals, birds, reptiles, amphibians and fish.

Remind the children that animals can be grouped in amphibians, reptiles, birds, mammals and fish. Discuss structures of these animals. Different animals have different diets depending on whether they are a carnivore, herbivore or omnivore. Name animals that are carnivores, herbivores and omnivores.

Use resources from Kapow Lesson 1: The Human Life cycle

LO: To identify different stages of the human life cycle

Main focus of the lesson is to draw/create a life cycle of a human and label it correctly.

Children learn there are four main stages in every life cycle: birth, growth, reproduce, death

Vocabulary: life cycle, offspring, adult, birth, growth, reproduce, death

### Session 2:

Use resources from Kapow Lesson 2: Life cycles

Recap and recall: The stages of the human life cycle.

LO: To know which offspring come from which parent animal.

Match photographs of adult animals with their offspring. Teacher can make and use life cycle wheels provided or can just use the images. Children learn that all animals have offspring which grow into adults.

Focus of the lesson is that children can identify the offspring that matches each animal. In particular: frogspawn-frog chick-chicken caterpillar-butterfly lamb-sheep

Children should also be able to describe the similarities and differences between the offspring and the adult.

Vocabulary: offspring, adult, lamb, sheep, chick, chicken, caterpillar, butterfly, frogspawn, frog

### Session 3:

Use resources from Kapow Lesson 3: Growth

Recap and recall: Match offspring with corresponding adult

LO: To ask questions about growth in animals

<https://www.bbc.co.uk/bitesize/topics/z6882hv/articles/zd4dkty> how animals grow

Videos include various lifecycles: caterpillar, frog, human, chicken

Highlight that there are four stages in all the different lifecycles: birth, growth, reproduce, death

Children ask questions about other animals' lifecycles: are all lifecycles the same length?

Which animal has the shortest life cycle? What is a baby squirrel called? Etc.

Children record their questions and research the answers

Vocabulary: birth, growth, reproduce, death, metamorphosis, life cycle

### Session 4:

Use resources from Kapow lesson 4: Survival

Recap and recall: What are the four stages in an animal's life?

LO: To identify and list the basic needs for survival for humans and animals.

- Water - need fresh water for their bodies to function. It is vital.
- Food - need food to provide energy to existing cells and to provide the raw materials and energy for the construction of new cells.
- Air – need oxygen to live and there are also air pockets in soils and water that help tiny living things survive in water and beneath the soils.

N.B. all need a place to shelter

The main focus of the lesson should be the three things animals need to survive. This could be done by creating posters, as suggested by Kapow, or by using the information above to write an explanation.

Vocabulary: food, water, air, oxygen, survive, survival, shelter

### Session 5:

Use resources from Kapow lesson 5: Exercise and hygiene

Recap and recall: what do all animals need to survive?

LO: To recognise the importance of exercise and personal hygiene.

Can use the information from Kapow lesson 5 to help the children list health or hygiene activities that they complete during the day in their books (these do not have to be written on the worksheet provided).

Vocabulary: sleep, exercise, hygiene, germs, physical activity

Session 6:

Use resources from Kapow lesson 6: Balanced diet

Recap and recall: At least four things they can do to keep healthy

LO: To identify how to have a balanced diet.

Children use the balanced plate presentation to create a balanced shopping bag; they identify the different food groups and each food belongs to.

N.B. Eat different foods, including fresh fruit and vegetables. Five portions of these per day is best! Drink 6-8 glasses of water every day

Vocabulary: food groups, fruits and vegetables, carbohydrates, proteins, dairy, fats, balanced diet, water

Link to career:

wildlife biologist,

sports scientist [https://www.youtube.com/watch?v=mG7B\\_Y-HAk](https://www.youtube.com/watch?v=mG7B_Y-HAk)

medical physicist <https://www.youtube.com/watch?v=IF0WqVk0cTY> (up to 1 minute)

Scientists who have helped develop understanding in this field: Aristotle