



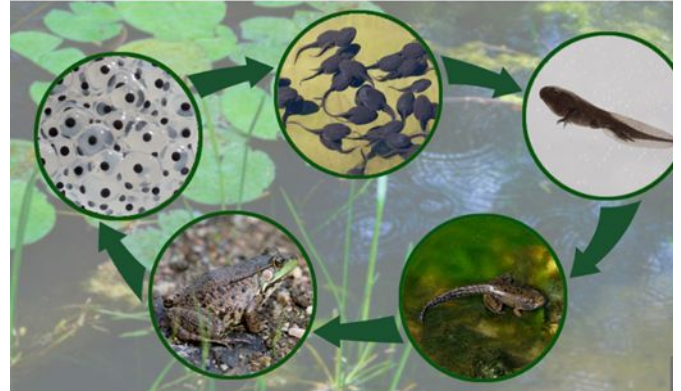
Knowledge Organiser

SCIENCE : Cycles in Nature

Year 3 AUTUMN TERM

IN nature, all living things are part of the cycle of life, a process that keeps going around and around. All living things are born, grow and eventually die. To keep life moving, living things need to reproduce, which means to make young like themselves.

We will learn that a life cycle has four parts: birth, growth, reproduction and death. For many living things, the cycle of life follows the cycle of the four seasons of the year. We will look at how the lives of some plants and animals in the UK change with the different Seasons.



Enquiry Questions

Question 1

Where does the word 'cycle' come from?
What is the cycle of life?

Answer:

Links to other words e.g bicycle, It has no beginning or end, it is a circle that goes round and round. It has four parts: birth, growth, reproduction and death.

Question 2

What is the cycle of the Seasons and how are the seasons different from one another?

Answer

- Autumn, Winter, Spring, Summer,
- Autumn: Plants mature/ Fruit ripens/ wheat is harvested / animals prepare for the winter .
- Winter: Plants die, leaving seeds in the ground/ some animals hibernate / birds migrate
- Spring: nature wakes up & comes alive/ earth grows warmer/ seeds begin to sprout/ baby animals are born / eggs are laid
- Summer: weather is warmer/ plants & animals grow larger / Plants grow/ fruits ripen. Baby animals grow bigger.

Question 3

What is the life cycle like for plants?

Answer

- Seeds planted, grows in the right conditions, produces flowers/ flowers are pollinated/ fertilised and seeds are produced.

Question 4

What is the life cycle like for animals?

Answer

- Chicken – egg/ chick/ chicken

- Frog – frogspawn/ tadpole / froglet/ frog
- Butterfly – caterpillar/ pupa/ butterfly

Question 5:

How does the water cycle work?

Answer

- Most of the Earth's surface is covered by water
- The water cycle : Evaporation and condensation /Water vapour in the air/ humidity / Clouds: cirrus, cumulus, stratus / Precipitation, groundwater

Important Facts

- Everything in nature has a cycle.
- The life cycle has four parts: birth, growth, reproduction and death.
- Animals go through the same life cycle as plants.
- The stages of the different life cycles.

Key Vocabulary

Key vocabulary: life cycle season water cycle

Related vocabulary: Spring sprouting mating hatching summer growth autumn migration
winter hibernation birth growth reproduction seed plant egg chicken spawn frog
solid liquid gas water ice evaporation condensation rain sleet hail snow
cloud

Useful websites

<https://www.bbc.co.uk/bitesize/topics/zgssgk7/resources/1>

Plant life cycles:

<https://vimeo.com/218127170>

<https://www.youtube.com/watch?v=KPKM2uc2VNo>

<https://www.youtube.com/watch?v=zPqnYYI2Uq8>

Animal life cycles:

https://www.youtube.com/watch?v=RQn3_LCbl-Y (animal life cycles)

<https://www.youtube.com/watch?v=wAcwjWi6I9Y> (frog)

<https://www.bbc.co.uk/bitesize/articles/zttckqt> (frog)

<https://www.youtube.com/watch?v=O1S8WzwLPIM> (butterfly)

The water cycle:

<https://www.youtube.com/watch?v=TWb4KIM2vts> (song)

<https://www.bbc.co.uk/bitesize/articles/z3wpp39>

<https://www.natgeokids.com/uk/discover/science/nature/water-cycle/>

<https://www.metoffice.gov.uk/weather/learn-about/weather/how-weather-works/water-cycle> (good animation of w cycle)

Useful resources:

Judy Hindley & C. J. Rawson, How your Body Works, (Usborne Publishing) 1995.

Chris Oxlade, The Science Behind Growth, (Raintree) 2013.

Jinny Johnson, How Does it Grow: Butterfly, (Franklin Watts) 2009.

Catherine Chambers, Drought (Wild Weather Series), (Heinemann) 2008.

Beatrice Hollyer, Our World of Water (Frances Lincoln) 2009.

Christiane Dorion & Beverley Young, How the Weather Works, (Templar) 2011.

Useful pictures:

