

Topic: Life Cycles Phase: KS2 Strand: Biology **Key Knowledge** We are MANOR! As Scientists we will ... A life cycle is the different stages of life for a living thing. In science it is usually displayed as a circular diagram showing each stage in words and/or pictures. A life cycle is presented as Develop a respect and understanding for the Manners a circle to show that seeds /offspring are created as part of the cycle. natural world, its people, animals and plants. Share ideas, celebrate good work, value others' contributions, or discussions and debates. Learn by being challenged in a series of well-Aspiration designed scientific enquiry and investigation tasks linked to meaningful contexts and develop a plant Life Cvcle knowledge of scientists and careers to broaden our horizons. Be aspirational in developing scientific a Chicken knowledge and conceptual understanding through biology, chemistry and physics. To recognise that we live in a wonderful world Nurture Adults made up of many different people and living things. We will develop an appreciation and respect for the diverse world and environment in which we live, showing care and compassion for the environment around us. We will be open-minded so that we can conduct Openexperiments or observe what is happening in order What should I already At the end of the unit. I will be able to: Mindedness to see patterns that might emerge or to gain new know? knowledge. We will use maturity and curiosity Describe the differences in the life cycles of a mammal, an when learning to wonder why something behaves a amphibian, an insect and a bird. • That animals, including humans, have certain way. Describe the life process of reproduction in some plants and offspring which grow into adults. Engage confidently with the science curriculum and Resilience animals • The part that flowers play in the life learn that anything is possible and failure is not Understand and explain that most animals reproduce cycle of flowering plants, including something to fear but to learn from. We will sexually and plants reproduce both sexually and asexually. pollination, seed formation and seed develop our scientific enquiry and investigation Draw the life cycles of a range of animals identifying dispersal. skills with patience and care, repeating similarities and differences between the life cycles. investigations to check the accuracy of results.

Reproduction

Some living things, such as plants contain both the male and females sex cells. In others, such as humans, they contain either the male or female sex cell.

Mammal	Plant;	
Grows into an adult pig	Most plants contain both the male sex cell (pollen) and female sex cell (ovules), but most plants can't fertilize themselves. Wind and insects help to transfer pollen to a different plants. The pollen for the stamen of one plants is transferred to the stigma of another. The pollen then travels down a tube through the style and fuses with an ovule. Some plants such as strawberry plants, potatoes, spider plants and daffodils use asexual reproduction to create a new plant. They are identical to the parent plant.	
Mammals use sexual reproduction to produce their offspring		
The male sex cell, called the sperm, fertilizes the female sex cells, called eggs or ovum. The fertilized cell divides into different cells and will form a baby with a beating heart. The baby will grow inside the female until the end of the gestation period when the baby is	A Pollen B Anther Pollen tube Egg cell Sperm Ovule	

(Hermaphrodite

born.

birth to live young.

Did you know? Echidnas and platypus are

mammals, but they lay eggs rather then give

Female

Outcrosser (Dioecious)

Life Cycles

Humans develop inside their mothers and are dependent on their parents for many years until they are old enough to look after themselves.



Amphibians such as frogs are laid in eggs then they hatch. They go through many changes until they become adults.

School Boy (5 -

(3 - 5)

Teenager (13 – 19 (36 – 55 years)

Some animals such as butterflies go through metamorphosis to become an adult



Birds are hatched from eggs and are looked after by their parents until they are able to live independently.



Gestation is the period of time that a mammal carries her offspring, or babies, inside her body before giving birth. The length of gestation is different for each type of mammal.

Larger animals usually have longer gestations than smaller animals.

Human gestation, or pregnancy, lasts about nine months.

An elephant's gestation lasts about 22 months.

In squirrels, gestation lasts only about six weeks.

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life cycle	The journey of changes that take place throughout the life of a living things including birth, growing up and reproduction.	1) Name a mammal that does not give birth to live young.
reproduce	The process of new living things being made.	2) Which mammal has the longest gestation period.
sexual reproduction	Two parents are needed to make an offspring which are similar but not identical to either parent	3) Name the male and female sex cells.
asexual reproduction	One parent is needed to create an offspring, which is an exact copy of the parent.	4) True or false? Amphibians lay eggs.
gestation	The length of a pregnancy	5) Which type of reproduction create a clone of the adult.
fertilise	The action of fusing the male and female sex cells in order to develop an egg.	6) How long does a huma gestation last?
metamorphosis	An abrupt and obvious change in. the structure of an animals body and their behaviour	7) What is a newly hatcher chicken called?
pollination	The transfer of pollen to a stigma to allow fertilisation	8) Name a plant that is created by asexual reproduction.