Science

Living Things and Their Habitats

Years 5 & 6

Lesson 3

The Coombes CE Primary School

Unit/Lesson focus: the aim of this unit of learning is to understand the features of plants and be able to describe how they pollinate and reproduce. It will also look at reproduction in animals and lifecycles.

Credit – www.twinkl.co.uk

Unit Learning Objectives:

L.O.: To describe how some plants reproduce

L.O.: To describe the life cycles of different mammals

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L.O.: To describe the life cycles of different mammals

I can describe different types of mammals.

I can also describe and compare the life cycles of different mammals.

I can even describe the process of reproduction in mammals.

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Reproduction

All living things need to make more of themselves so that their species does not die out.

Reproduction is the process by which new living things are made.

There are two types of reproduction: sexual and asexual.

Sexual reproduction requires two parents to make one offspring.

Asexual reproduction needs only one parent, which creates offspring that are exact copies of the parent.

Life Cycle of a Mammal

A mammal is a particular type of animal. There are two things that make mammals special:

Mammals make milk to feed their babies.

They are all warm blooded. This means they can maintain a constant body temperature, independent of the temperature of their environment.

These creatures are all mammals:

Talk to your grown up about any other animals that are mammals.

Life Cycle of a Mammal

Here are the stages of the life cycle of a rabbit, a mammal. Talk to your grown up about how you know the stages are in the correct order.

Rabbit Life Cycle

Adult

The adult male rabbit will mate with an adult female rabbit and reproduce.

Embryo

The embryo grows inside the female rabbit.

Kitten (baby rabbit)

The kitten drinks milk from the female. As it grows, it develops fur and starts to eat solid food.

Adolescent

The young rabbit grows and develops.

Different Mammals

There are three different groups of mammals:

Placentals: their young grow inside the female's body and are born fully developed.

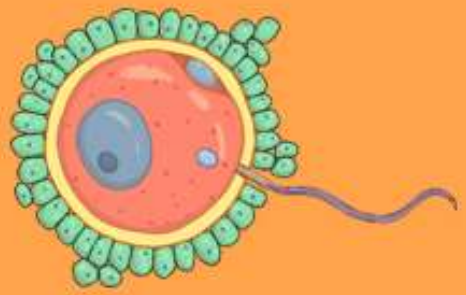
Monotremes: their young hatch from eggs.

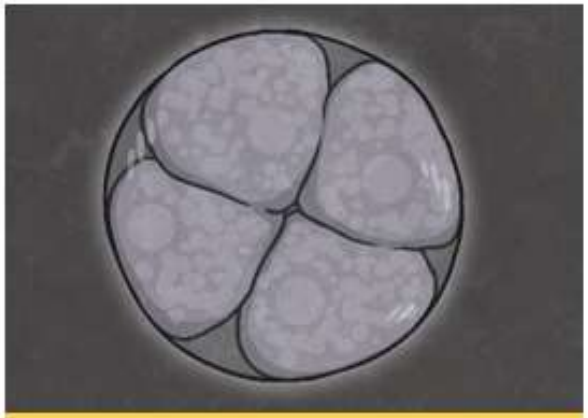
Marsupials: their young are born incompletely developed. They are then carried and fed in a pouch on the female's stomach until they are fully developed.

Sexual Reproduction

Mammals use sexual reproduction to produce their offspring.

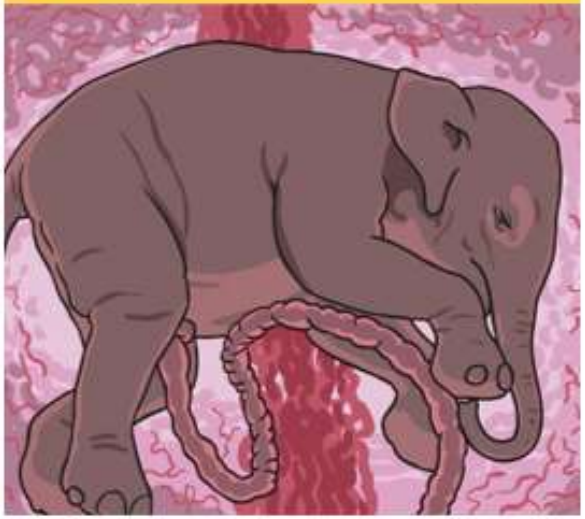
The male gamete is called sperm. The sperm travels down the male's penis and enters the female's body through the vagina. A sperm cell will fuse with the ovum, the female gamete. When this happens, the ovum is fertilised.





This fertilised cell splits in half, creating two cells. These cells continue to divide, so that the number of cells doubles each time. Eventually, the cells will form a baby, and the heart starts to beat.

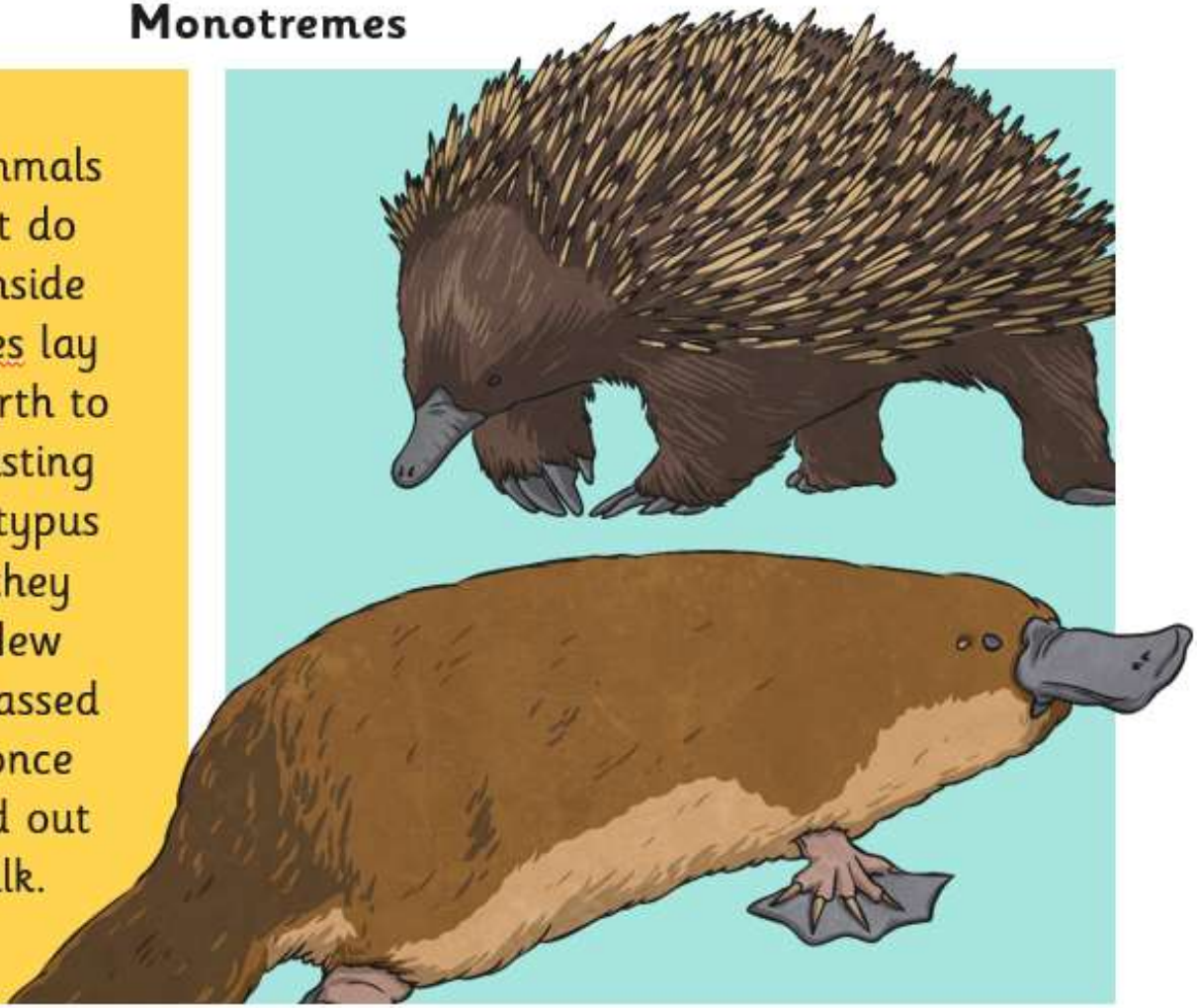
The baby will grow inside the female for the length of the pregnancy. This is known as the gestation period. At the end of the pregnancy, the baby is born.



Sexual Reproduction

Monotremes

There is a group of mammals called monotremes that do not grow their young inside their bodies. Monotremes lay eggs instead of giving birth to live babies. The only existing monotremes are the platypus and the echidna, and they live in Australia and New Guinea. They are still classed as mammals because once their babies are hatched out they do feed them milk.



https://www.bbc.co.uk/bitesize/clips/zpmqxnb

Sexual Reproduction

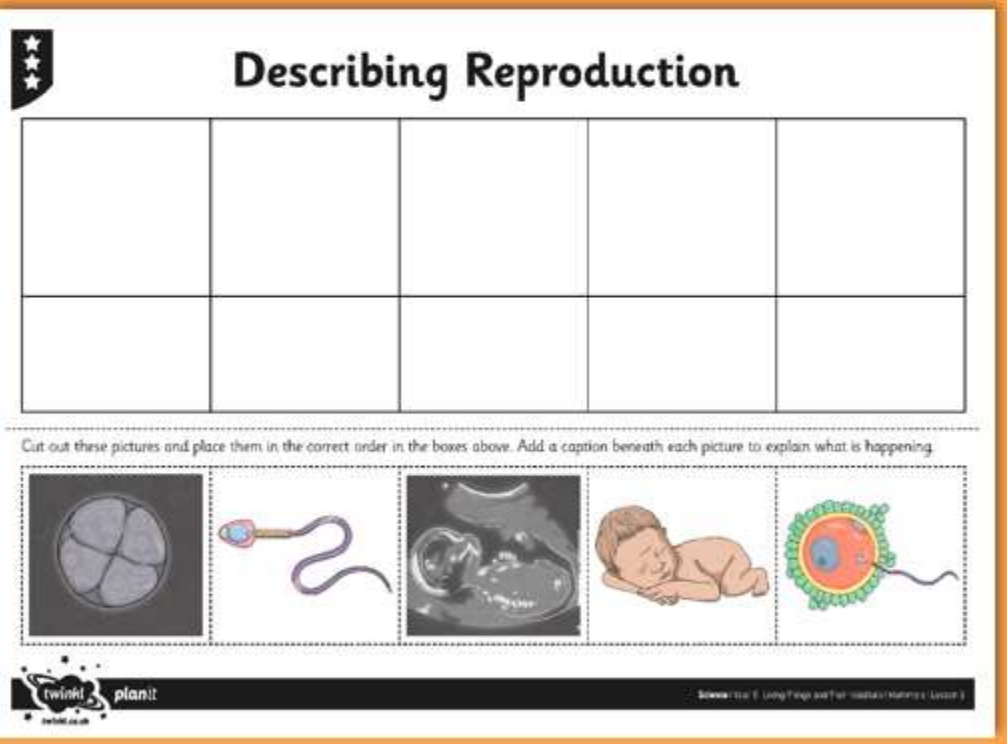
Watch this clip to see how the sperm and the ovum meet and join, and then grow into a baby.

http://www.bbc.co.uk/education/clips/zpmqxnb

Task:

Describing Reproduction

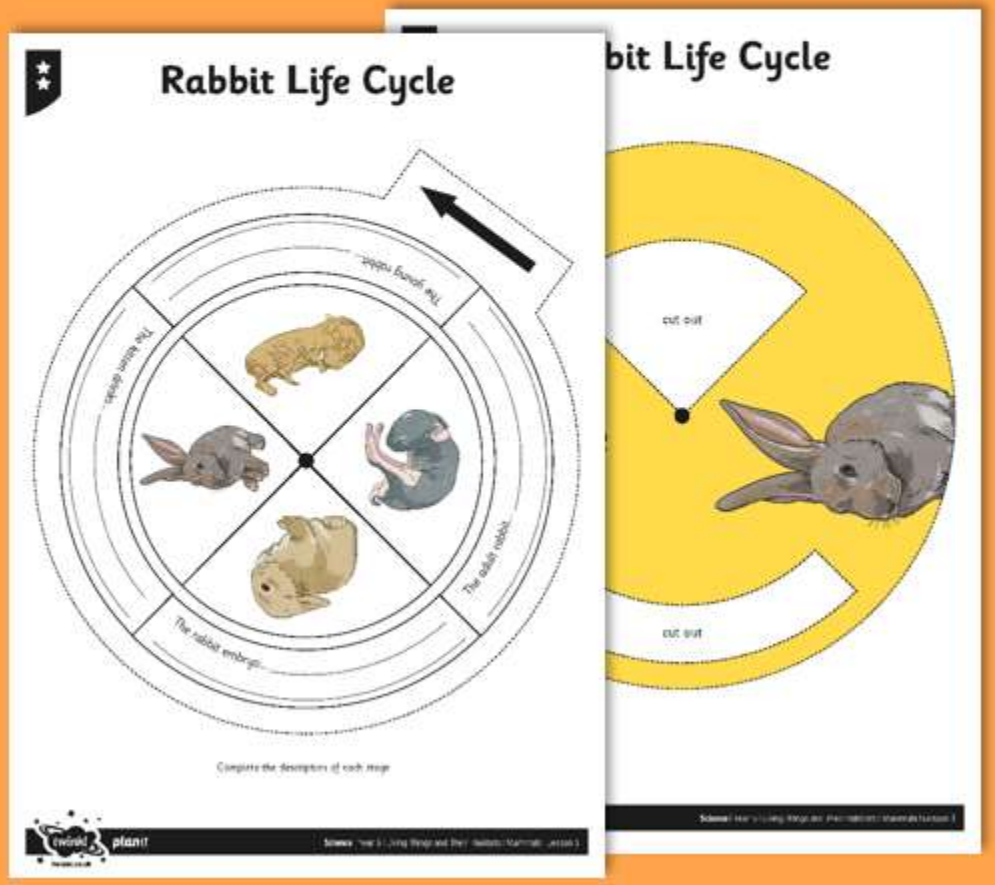
Cut out the pictures on your Describing Reproduction Activity Sheet and stick them in the correct order with their descriptions.



Task:

Life Cycles of Mammals

Make a Life Cycle Wheel to describe the stages of a mammal's life cycle using your Life Cycle Activity Sheet.



Plenary:

Comparing Life Cycles

Compare the life cycles of the different mammals.

How are the life cycles similar? How are they different?

Think of 2 things that are the same about each life cycle, and 2 differences between them.

Reflection:

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