Y6 Science

Evolution

I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.

Recap

Can you remember what these words mean?

Explain what they mean to your partner.

Adaptation

Natural selection

Evolution

Recap

Can you remember what these words mean?

Explain what they mean to your partner.

Adaptation

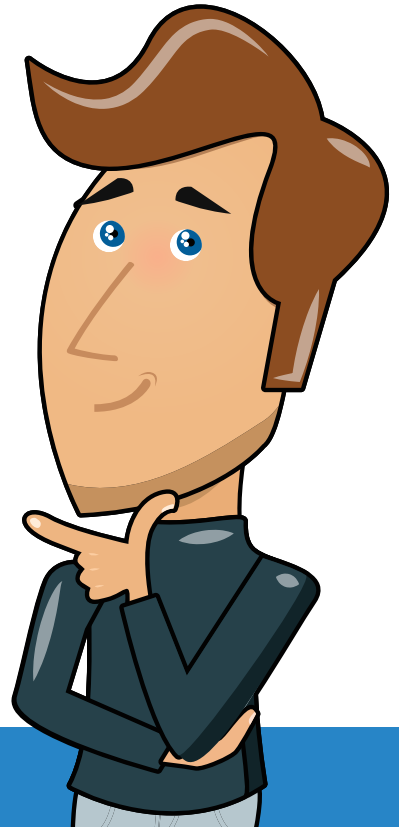
When a plant or animal has changed in some way, usually over a long period of time, to be better suited to the environment in which they live.

Natural selection

When the fittest, most adapted organisms survive and multiply whilst the least adapted die out.

Evolution

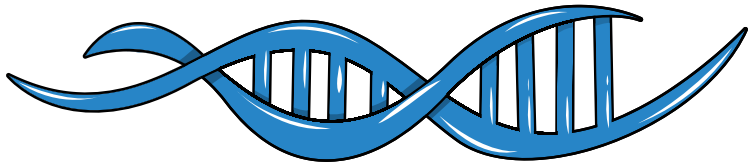
The theory that all the kinds of living things that exist today developed from earlier types.



Genetics

Adaptations and evolution would not occur if species did not continue to have offspring.

When parents have offspring, they pass on their physical traits. The offspring inherit their parents' qualities. This means that most offspring look like their parents but they are not identical. The offspring may take characteristics from the father, the mother or a mixture of both.



New Word Alert

Genetics – the things in your DNA that make you how you are

Inherit – to receive

Parents and their Offspring

Think about your parents. Do you have any characteristics that are the same?

Someone might have said ‘you have your dad’s eyes’ or ‘your hair is lovely and thick, just like your mum’s!’

There are lots of characteristics that you can inherit from you parents.

Which of the characteristics below do you think you can inherit?

Eye colour

Thickness of hair

Shape of face

Hair colour

Size of feet

Their singing voice

Their ability to play football

Shape of nose

Skin colour

Length of hair

height

Parents and their Offspring

These are all characteristics that you can inherit from your parents.

Have you inherited any of these from your parents?

Eye colour

Thickness of hair

Shape of face

Hair colour

Shape of nose

Skin colour

Size of feet

height

These are characteristics you cant inherit. You mum or dad might help to teach you to do these things

but you cannot inherit the ability to do these things. Are you good at anything because your mum or dad have taught you?

Their singing voice

Their ability to play football

Length of hair is another characteristic that you can't inherit.

This one is tricky because everybody's hair grows but we have it cut to suit our own preferences.

Length of hair

An example of Mendel's Investigations

Parents (P)  x

Pure-breeding yellow peas YY yy Pure-breeding green peas

Offspring (F_1) 

All look yellow Yy Yy Yy Yy

Self fertilise one of identical plants:

Offspring (F_2) 

YY Yy Yy yy

Three quarters look yellow and one quarter look green

We can work this out using a Carroll diagram:

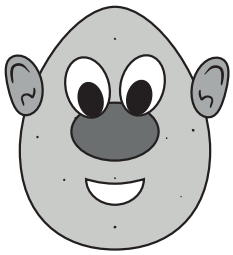
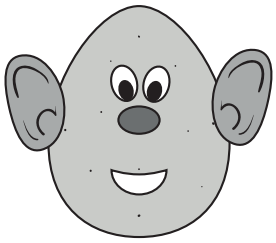
Cross	**Y**	**y**
Y	YY	Yy
y	yY	yy

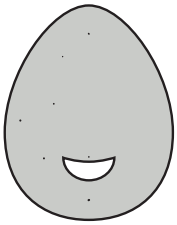
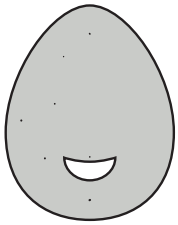
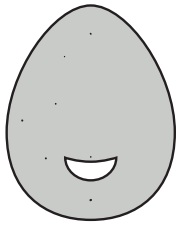
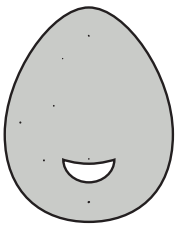
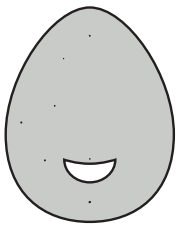
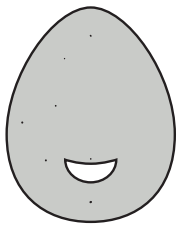
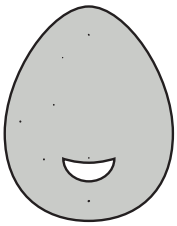
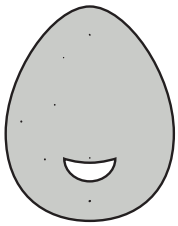
Labradoodle

Parents: Labrador and Poodle

Offspring - Labradoodle

Meet the Potato Heads

Mr Potato Head	Mrs Potato Head
	
Eyes = Big Nose = Big Ears = Small	Eyes = Small Nose = Small Ears = Big

 Eyes = Nose = Ears =	 Eyes = Nose = Ears =	 Eyes = Nose = Ears =
 Eyes = Nose = Ears =	 Eyes = Nose = Ears =	 Eyes = Nose = Ears =
 Eyes = Nose = Ears =	 Eyes = Nose = Ears =	

English Cocker Spaniel

German Shepherd

Great Dane

Italian Greyhound

Miniature Poodle

Border Collie