

LESSON ONE

What is the theory of evolution?

Quiz



1. A **characteristic** is a physical feature, for example eye colour. Write down 3 of your characteristics (for example your eye colour).
2. A group of living things with similar characteristics that can breed together is called a **species**. Write down three examples of species.
3. What is meant by the word **organism** in science?

You may know the answers to these questions or you may not – just try your best.

If you don't know the answers you will very soon!

Quiz



1. A characteristic is a physical feature, for example eye colour. Write down 3 of your characteristics (for example your eye colour). **Hair colour, height etc.**
2. A group of living things with similar characteristics that can breed together is called a species. Write down three examples of species. **Cats, dogs, tigers, grass etc.**
3. What is meant by the word organism in science? **A living thing**

You may know the answers to these questions or you may not – just try your best.

If you don't know the answers you will very soon!

LESSON ONE

By the end of this lesson you will be able to...

- define key vocabulary

- explain who Darwin is

- explain Darwin's Theory of Evolution

Vocabulary



organism = a living thing (plant, animal, micro-organism)

variation = the difference between species

adaptation = characteristic that helps an animal to survive in its environment

characteristic = physical feature e.g. eye colour

species = group of living things that can breed together e.g. cats, grass, oak trees

evolution = the process by which different kinds of living organism are believed to have developed from earlier forms during the history of the earth.



Read the following passage about Darwin's observations.

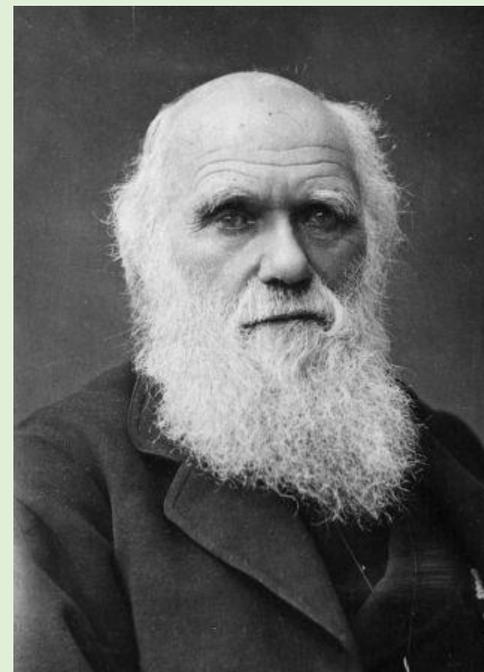
Darwin was born in 1809 in Shrewsbury, England. He was interested in lots of different types of animals from a young age. When he was 22 years old, he went on a trip on a boat called the HMS Beagle that travelled all around the world.

He discovered that different animals seemed to have different characteristics that meant they were well suited to their surroundings. For example, he noticed that different types of birds called 'finches' all lived on islands that were close to each other. However, each island had

finches with different types of beaks that were helpful to get different types of food that could only be found on that island. He

decided that over time, one type of finch must have existed but that each family of finches must have gradually changed over lots of generations to make new finches which were suited to each island. With this in mind, he came up with his 'Theory of Evolution'.

Keyword – a 'characteristic' is a physical feature shown in a living organism (for example, the shape of a bird's beak).



Use the passage on the slide before to answer these questions.



Find the answers to the quick questions below:



1. **When was Darwin born?** _____
2. **Darwin was interested in....** _____
3. **How old was he when he sailed on the HMS Beagle?** _____
4. **Darwin realised that different _____ seemed to have different _____ that meant they were well suited to _____ .**
5. **This helped him come up with the theory of _____ .**



Find the answers to the quick questions below:

1. When was Darwin born? He was born in 1809.
2. Darwin was interested in.... different types of animals.
3. How old was he when he sailed on the HMS Beagle? He was 22 years old.
4. Darwin realised that different animals seemed to have different characteristics that meant they were well suited to their surroundings.
5. This helped him come up with the theory of evolution.

Tick or fix your own work in a different coloured pen or pencil.

BEAK

ADVANTAGE

1



2



3



4



A

Large and slightly turned to remove fruit from branches

B

Long and narrow to pick out grubs from deep inside bits of wood

C

Gripping small branches to use as a tool

D

Big and pointed to be able to break open nuts and get into seeds

Darwin noticed **finches** with different **beaks**.

Each of these **beaks** had **different advantages** that would help them to survive in their **environment**.



Match the beak to the advantage

1 = C

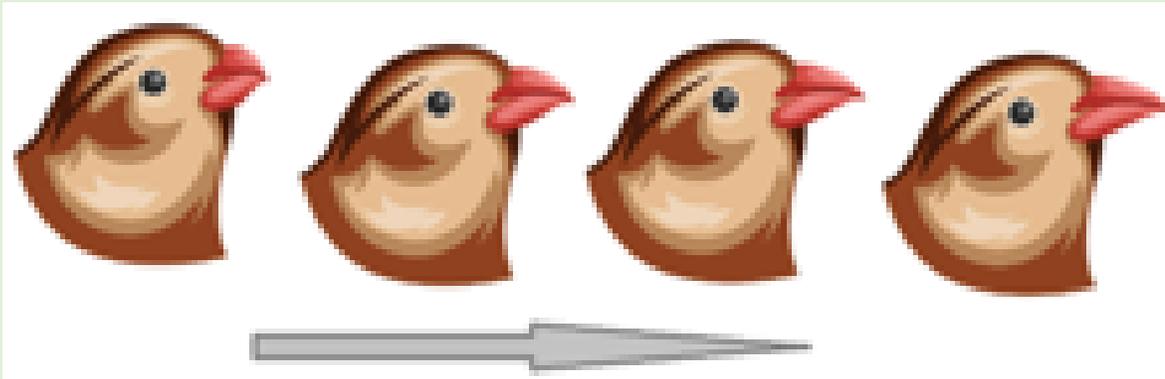
2 =

3 =

4 =



If the finches lived in an environment where the only food available was grubs found deep in the ground, **only the bird with a longer beak would survive.** The ones without this **characteristic** may die out.



We say that the bird with the long beak was '**best adapted**' to survive.

Overtime the species change and the short beaked.....not survive..

Darwin's Theory of Evolution

1. Not all individual **species** are exactly the **same**. There are **variations** between them.
2. The individuals who are **best adapted** to their environment are the most likely to **survive**.
3. These individuals are more likely to **reproduce** and pass on their useful adaptation onto their **offspring**.
4. Individuals that were **poorly adapted** were **less likely to survive**.
5. Over time, the **characteristics** that help survival become more common and a species gradually **changes**.

Along with Evolution, you are also learning about the importance of **transition** and the transition to Secondary School. One of the key skills that you will need when you move to Secondary School is the ability to **take effective notes**.



Practise now! Click on the link below to watch Mr.Davies tell us about **Variation** within a plant species. Take notes whilst you watch. Remember to stop and pause the video if you need to.



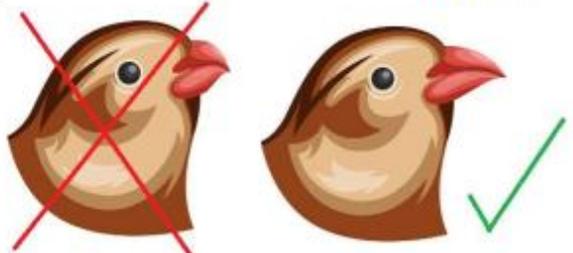
[Mr. Davies' Variation Video](#)



Not all individuals of a species are exactly the _____. There is _____ between them.



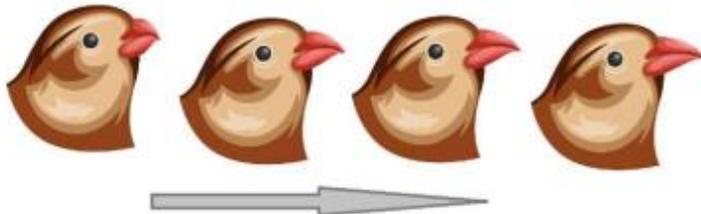
The individuals of a species who are best _____ to their environment are most likely to _____.



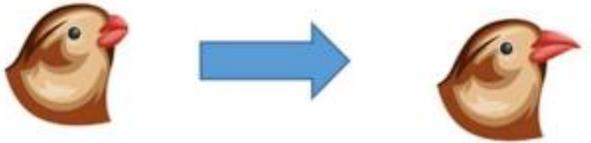
These individuals are more likely _____ and pass their useful adaptations onto their _____.



Individuals that were poorly _____ were less likely to _____.



Over time, the _____ that help survival become more common and a species gradually _____.



Given enough _____, these small changes can add up to the extent that a new _____ altogether can evolve.

Copy the sentences and fill in the blanks using the words at the bottom.

Write out the whole sentence and underline the missing words.



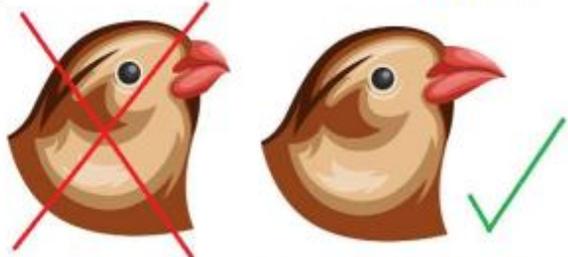
Characteristics | changes | time | Variation | Adapted | Survive | Reproduce | Offspring | Survive | Same | species | Adapted



Not all individuals of a species are exactly the same. There is variation between them.



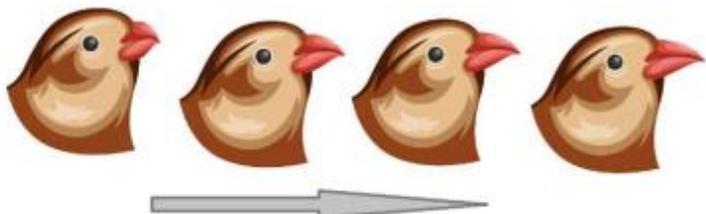
The individuals of a species who are best adapted to their environment are most likely to survive.



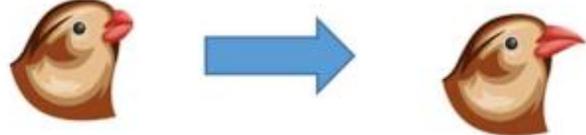
These individuals are more likely reproduce and pass their useful adaptations onto their offspring.



Individuals that were poorly adapted were less likely to survive.



Over time, the characteristics that help survival become more common and a species gradually changes.



Given enough time, these small changes can add up to the extent that a new species altogether can evolve.

Tick or fix your work.



Quiz



- 1. What is an organism?**
- 2. Can you name three characteristics?**
- 3. What did Darwin notice about the finches on the different islands?**
- 4. Which statement best describes Darwin's Theory of Evolution?**
 - a) The individuals best adapted to their environment are most likely to survive.**
 - b) The individuals that do not adapt to their environment are most likely to survive.**
 - c) All animals within the same species are exactly the same.**

Quiz



1. What is an organism? **A living thing**
2. Can you name three characteristics? **beak, eye colour, hair colour, height etc.**
3. What did Darwin notice about the finches on the different islands? **They had different beaks.**
4. Which statement best describes Darwin's Theory of Evolution?
 - a) The individuals best adapted to their environment are most likely to survive.**
 - b) The individuals that do not adapt to their environment are most likely to survive.
 - c) All animals within the same species are exactly the same.

Tick or fix your answers.

Don't forget to email a copy or
a picture of your learning
today!