Year 6

Home Learning Pack: 6

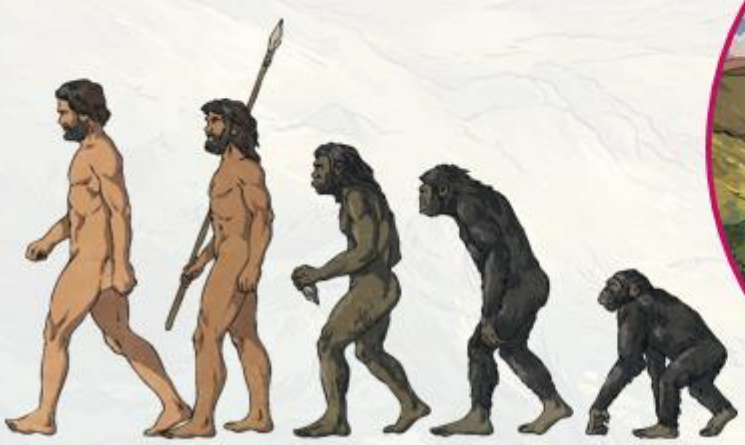
Subject: Topic

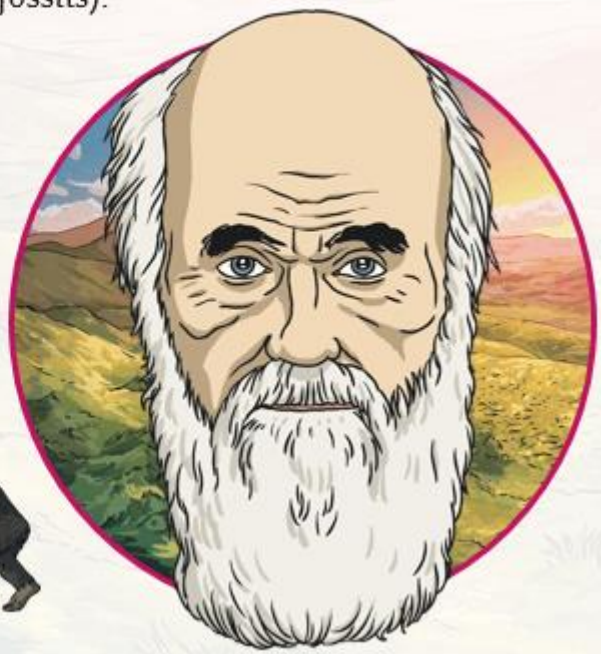
Fact Sheet

Evolution	The way something gradually develops and makes changes over time.
Adaptation	The way something changes for the better to suit something new or different.

Charles Darwin (1809-1882) introduced the theory of evolution. He was a famous English naturalist (an expert in studying nature), biologist (an expert in living things) and geologist (an expert in rocks and fossils).

He discovered that humans and apes shared **ancestors** which led to this famous image...

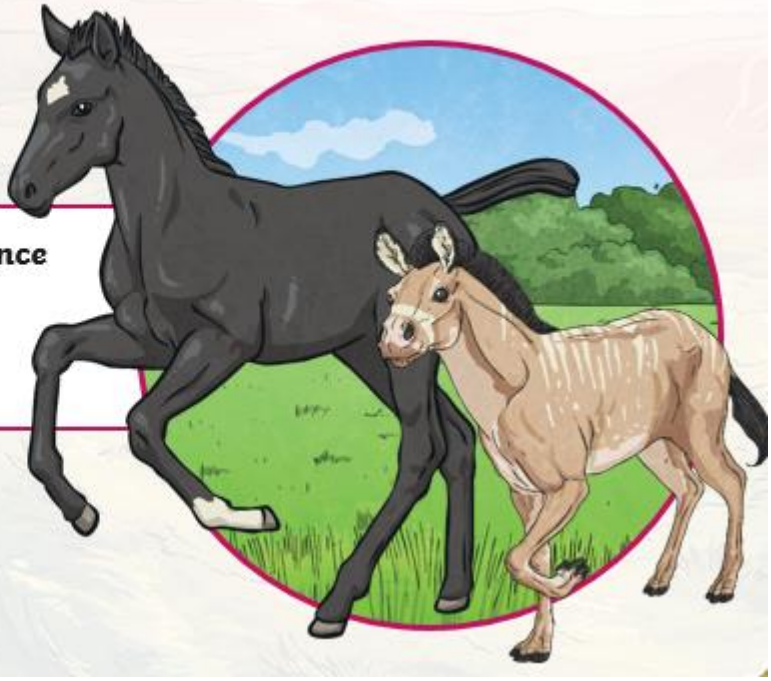




The thing about **evolution** is that it happens over the space of a long, long, long time so we don't really notice it happening.

One animal, plant or person doesn't just change... there are small changes with each new **generation**.

Evolution happens through **inheritance** – meaning that tiny changes only happen as traits pass to the next generation.



Over time, the result of a few generations start to make noticeable differences.

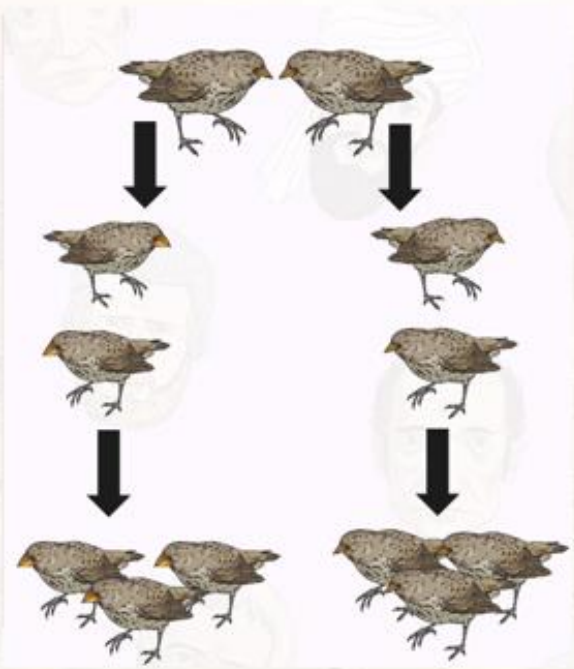
Looking at the Galapagos finches

The ones with large beaks reproduced and had offspring.

More of these offspring inherited large beaks and survived.

In other parts of the Galapagos, smaller beaks ensured better survival than larger ones.

The adaptations meant that over a long period of time, the Galapagos finches evolved adaptive traits that caused differences between them.

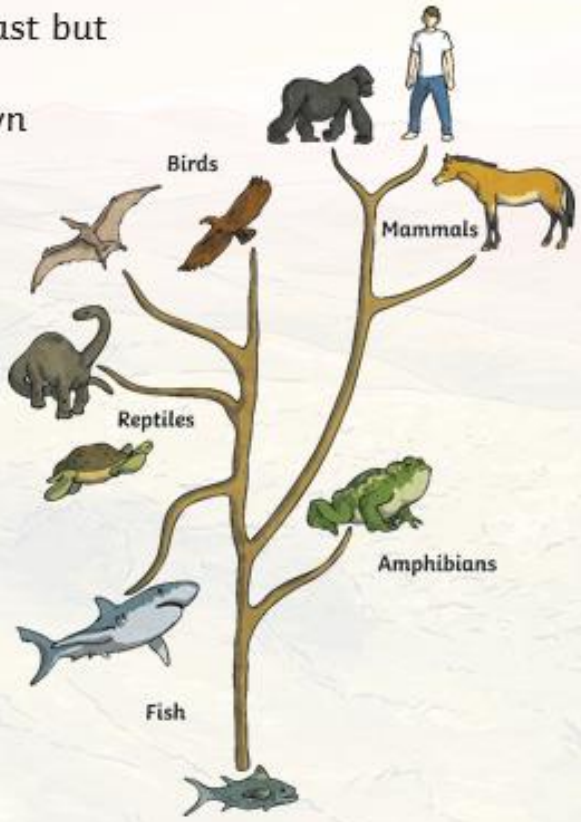


Animals and plants evolve to make adaptations to not only survive but to survive better. Some of these changes are down to habitats.

Darwin studied different finches living in different parts of the Galapagos Islands and realised, even though they were different, they all had the same ancestors! Some had evolved to have larger beaks in certain areas, some with smaller beaks in other areas due to different food being available.

Each generation is slightly different from the last but different families make their own generational changes and this can lead to species going down different evolutional paths.

This is part of the tree of life that shows how birds, reptiles and even humans developed from fish... but remember... over millions of years!



Topic day 1 – Questions

Bronze

1. Evolution is the way in which something gradually develops and makes changes over time. True or false?

2. Charles Darwin created the Theory of Evolution. True or false?

3. Charles Darwin was a Spanish scientist who studied nature. True or false?

Silver

1. Evolution is the way in which something gradually develops and makes changes over time. True or false?

2. Charles Darwin created the Theory of Evolution. True or false?

3. Charles Darwin was a Spanish scientist who studied nature. True or false?

4. What does 'adaptation' mean?

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5. What is one of the reasons that animals or plants must adapt?

6. Why had the beaks of the finches on the Galapagos Islands changed over time?

Gold

1. Evolution is the way in which something gradually develops and makes changes over time. True or false?

2. Charles Darwin created the Theory of Evolution. True or false?

3. Charles Darwin was a Spanish scientist who studied nature. True or false?

4. What does 'adaptation' mean?

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5. What is one of the reasons that animals or plants must adapt?

6. Why had the beaks of the finches on the Galapagos Islands changed over time?

7. Ben said this about evolution. ‘My big brother has grown in height this year. I think that this means he has evolved’.

Do you agree or disagree with Ben’s statement?

If you disagree, explain why and try to back your argument up using evidence.

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Topic Day 2 and 3 – Finches

warbler finch
slender beak for catching small insects on the wing

vegetarian tree finch
curved parrot-like beak for crushing nuts

insect-eating tree finch
curved parrot-like beak for feeding on beetles and other insects

woodpecker finch
strong beak to pick up a stick which it pokes into trees to find insects

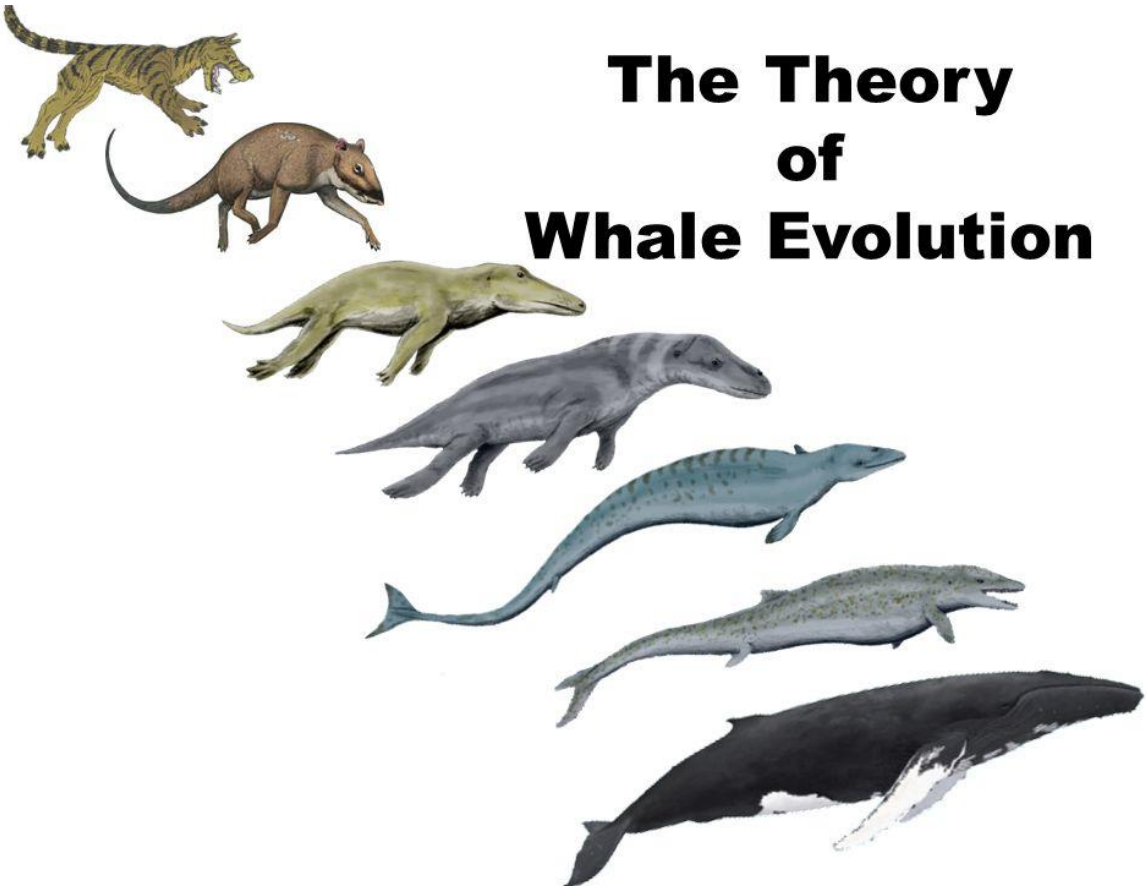
cactus ground finch
long straight beak for getting nectar out of cactus flowers

large ground finch
blunt beak for crushing seeds

BRONZE ACTIVITY
1. Draw pictures of the 6 finches shown above. Make sure each beak is different.
SILVER ACTIVITES
1. Draw pictures of the 6 finches shown above. Make sure each beak is different. 2. Next to each finch, write what food it eats.
GOLD ACTIVITIES
1. Draw pictures of the 6 finches shown above. Make sure each beak is different. 2. Next to each finch, write what food it eats. 3. Explain how each beak has evolved to suit the type of food eaten.

Topic day 4 and 5 – Imaginary animal evolution

Think back to your ‘Anywhere Island’. Create an imaginary animal that lives on the island and show how it has evolved over time. If you didn’t do the Anywhere Island work, you can still make an imaginary animal. Think about: what did it look like thousands of years ago? How and why has it evolved? Look at the picture below to see the evolution of a Blue Whale, which we learned about in Year 5 for help.



BRONZE ACTIVITY

1. Draw 3 different pictures of your animal showing how it has changed over time.

SILVER ACTIVITES

1. Draw 5 pictures of your animal showing how it has changed over time.

GOLD ACTIVITIES

1. Draw 5 pictures of your animal showing how it has changed over time.
2. For each evolutionary change, explain why it has evolved in this way. Think about the changes to its habitat and the food it eats.