

Name:

Date:

Activity 3: Evolution

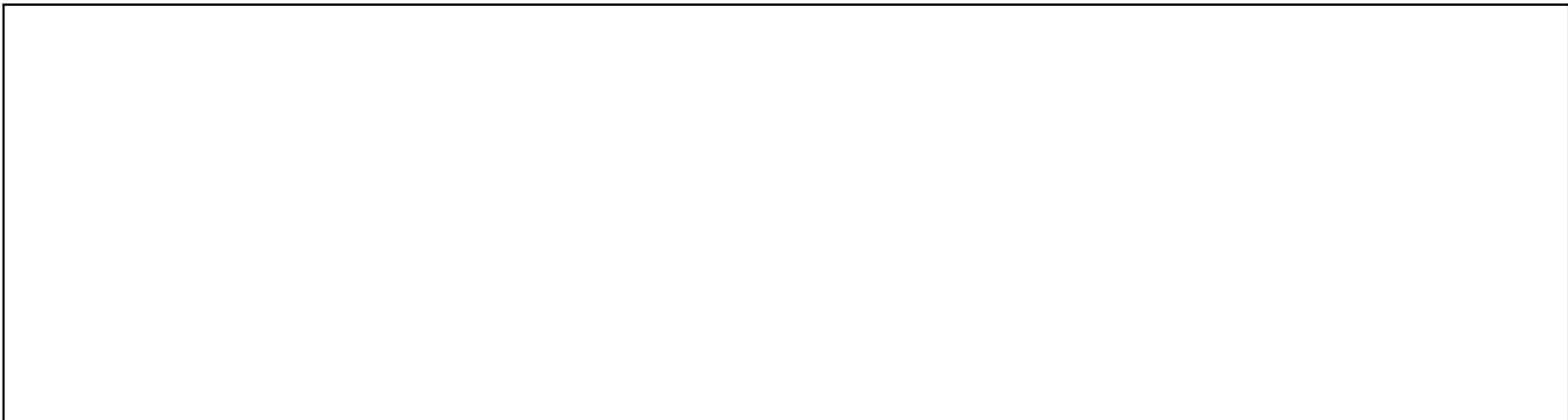
Darwin's Observations - Variation within a species

As you saw in the video Darwin made several observations that led to his theory of natural selection. Natural selection is the theory that living things which are better suited to their environment are more likely to survive.

One of these observations was that there is variation within a species.

Example: On the next page there are photos of two male leopard tortoises. Leopard tortoises come from the savannah in Africa. If spotted they may be at risk of being eaten by wild cats and dogs. Are the two tortoises different? If you look at the patterns on their shell, is one more likely to survive than the other? Or does it depend on the more specific area where it is wondering around? Note any thoughts below:

HINT - Think about their colour and pattern compared to their background.



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There isn't just one answer to this. Possible thoughts might include:

Example answer

It might depend on where they are in their savannah habitat.

If they were under a tree and it was hot and sunny there would be lots of shadows. Therefore the contrasting pattern of the tortoise on the right may camouflage better.

If they were out in more open savannah then perhaps the one on the right would blend in and camouflage better.

Maybe it would depend on the predator and their point of view.

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Now it's your turn!

Variation within a species – drawing scientifically

1. Find two animals of the same species. If you have two pets of the same species (for example, two dogs) you can use these but consider their natural habitat or them being in the 'wild' in this exercise.
2. In the boxes on the next 2 pages use a sharp pencil to draw these animals. The drawings need to be flat or 2D. Use clean lines.
3. Once you have your basic animal – draw the important (natural) features that make the two animals vary! For example if you are using two grey squirrels they may vary in – tail size, fur colour etc. Draw these in!
4. Use a ruler and label these features in your drawings.

Name:

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Animal 1



Name:

Date:

Animal 2



Name:

Date:

Consider the natural environment of this animal. Would one of the animals be better suited for survival than the other? Why would this be?



Like Darwin you have observed that there is variation within the same species. These little differences may mean that certain individuals are more likely to survive.