

# TORTOISE SHAPES AND SIZE...

? Not all tortoises look the same. What can you learn about a tortoise from looking at the shape of its shell?



Some Galapagos tortoises have **domed shells** like this



Some Galapagos tortoises have **saddleback shells** like this

An adaptation is a feature an animal has which helps it survive. If an animal has a greater chance of surviving then it has a greater chance of having more babies who are also likely to have the same adaptation.

## TASK 1

In the space below, draw one of our Galapagos giant tortoises. Make notes describing the different adaptations of the tortoise and how those features might help the tortoise survive in the wild.

Encourage students to annotate their drawings, thinking about shell size and shape, length of legs and neck, claws, mouth, eyes—how do all of these features help tortoises survive?

Perhaps suggest what adaptations a tortoise may have that we can not see? E.g.. Ribs part of shell shape. Or behavioural ones? E.g. migration, where they lay their eggs.

? Not all the Galapagos Islands have the same habitat. What can you tell about the habitat of a tortoise by looking at the shape of its shell?



Some of the Galapagos Islands are **smaller and dryer**, where tall cacti plants grow.



Some of the Galapagos Islands are **larger and wetter**, where many plants grow close to the ground.

## TASK 2

Of the two tortoise shell shapes, which is likely to be better for reaching tall cacti plants?

The saddle back allows the tortoises neck to reach higher up to eat tall plants such as cacti.

Which of these island types is likely to provide enough food for tortoises to grow to large sizes?

The larger wetter islands have more vegetation which would support animals to grow to larger sizes.

Which island type do you think our tortoises may come from? Why?

ZSL tortoises probably come from larger wetter islands as they don't have the adaptation of a saddle back shell. This means they are more likely to feed on plants close to the ground.

# GIANTS!

- ? How giant are our giants?
- ? Why are Galapagos giant tortoises so large?
- ? It is thought tortoises first arrived on the Galapagos Islands by being swept into the ocean and floating there all the way from South America! Do you think a large tortoise or small tortoise is likely to survive a long journey like that with no food or water?

DID YOU KNOW THAT GIANT TORTOISES ARE KNOWN AS 'HABITAT ENGINEERS'?



They change the spread of native vegetation by transporting their seeds over long distances.

DID YOU KNOW?

## TASK 3

Weigh yourself on the scales at our Galapagos giant tortoise enclosure. Calculate how many of your class would equal a large 300kg tortoise! Use the space below to show your mathematical working out:

## Answers

Your weight = \_\_\_\_\_ kg

Approximately how many of your class equal a 300kg tortoise? \_\_\_\_\_

## TASK 4

Find the sign with "Island Gigantism" information on it and use it to complete the gaps in the following passage with these words:

generations

Larger

evolved

small

predators

survival

The Galapagos Islands do not have any large predators that might eat the tortoises. In other places, animals may avoid such danger by being small. In Galapagos, however, the tortoises were able to grow large without being eaten by predators. Larger tortoises can also fight for food and mates. Being large has given these tortoises a greater chance of survival and a greater chance of having more babies who are also likely to be big. Over many generations, the Galapagos tortoises have evolved to be giants!

### ? What other animals do we have at ZSL London Zoo that might be island giants?

See if you can find out about other animals that are island giants by visiting the world's largest lizard, the Komodo Dragons of the Indonesian Islands. Also, in our reptile house, what can you find out about one of the world's largest frogs, the Mountain Chicken Frog, of the Islands of Montserrat and Dominica ([www.mountainchicken.org](http://www.mountainchicken.org))?

Be a scientist and record your observations in the space below: