

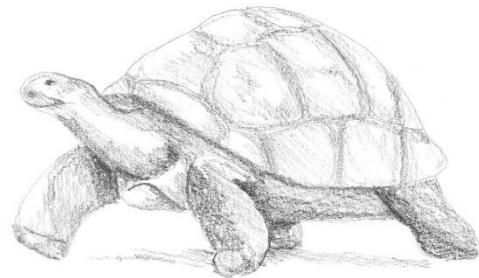
Monday 25th March

Jenny Shaw, biologist, reporting for duty! I'm writing this on a small boat heading to the **archipelago** of the Galapagos Islands, due west of South America. My interest in the work of Charles Darwin lead me to study these islands. Darwin, who is a **renowned** biologist, also sailed to these islands in 1835 and was puzzled by the unique wildlife he found there. Years earlier, after a failed attempt at a career in medicine, he was unexpectedly offered the job of a '**naturalist**' on board the 'Beagle', a small sailing vessel set for a voyage around the world. During the long and **arduous** journey, he spent five weeks on the Galapagos Islands, where Darwin studied and collected specimens which kept him thinking, studying and writing for the next fifty years. Darwin's new ideas – known as **Evolution** and Natural Selection – **revolutionised** the way people think about the natural world and it is still influencing scientists today – including me!

As soon as I learned about Darwin at school, I wanted to see some of the unique creatures which he studied. Not many people get to witness the natural splendour of these islands and their rare wildlife with their own eyes...and I longed to be one of the lucky few. So that is why I'm on my way to the Galapagos right now...and I'm feeling a bit sick because of the rough seas we've encountered...blergh!! I've been thinking, studying and writing about the species which live on these **mesmerizing** islands just like Darwin and now I'm actually going, I'm full of **anticipation** and excitement!! Writing a diary, making notes and sketches during – what I hope will be – an awe-inspiring expedition, will provide me with a lasting memory of a trip which I've always dreamed of.

Tuesday 26th March

Sailing into the Galapagos Islands, I felt rather like Darwin; an **intrepid** explorer. I was dazzled by the sunlight on the water's surface and my eyes widened to take in the **hypnotising** vivid azure blue and emerald green colours. It was overwhelming and more beautiful than I ever expected.



At first, we seemed to be the only living things around. However, as I surveyed the rocky crags, I noticed the rocks...weren't rocks.....but Galapagos Tortoises! These islands are actually named after these creatures and they have been known to live for more than 100 years! Strangely, they differ from tortoises on the mainland and I was amazed to see these variations for myself. Local people told Darwin that the tortoises were different on each separate island; they were much larger and had different shaped shells for example. Incredibly, the tortoises have adapted their shells over time to help them survive on their own individual island. The stunning tortoise I watched had a saddle-back shell. On other islands they have dome shaped shells. (I hope I get the privilege of observing them too.) Most species inherit features from both its mother and father. However we all have natural variations or differences, which make us different from our parents. Some variations are an advantage and make survival easier but some are a disadvantage and make an individual weaker. Long ago, some of these tortoises were lucky enough to be born with the natural variation of a saddle-back shell, making survival easier as they could reach food higher off the dry ground, which other tortoises could not reach. Darwin called this process 'natural selection'. This means, individuals with **traits** suited to their environment survive and weaker **specimens** die out. This is also known as survival of the fittest. Because the adults with the adapted shell were more likely to survive, they were also more likely to reproduce and pass on the positive variation. Now all adults on this island have the saddle-back shell and therefore pass this on to all of their young, allowing the species to be fit for survival on this island and so these wonderful tortoises live on. The **species** has evolved – gradually changed and adapted over time. The power of nature astounds me! Darwin was a genius! I thought about this natural miracle and watched them feeding and **foraging**, the remarkable shell allowing them to do so with ease and charm. As the daylight now **wanes**, I'm glad I've shared some of their secrets.

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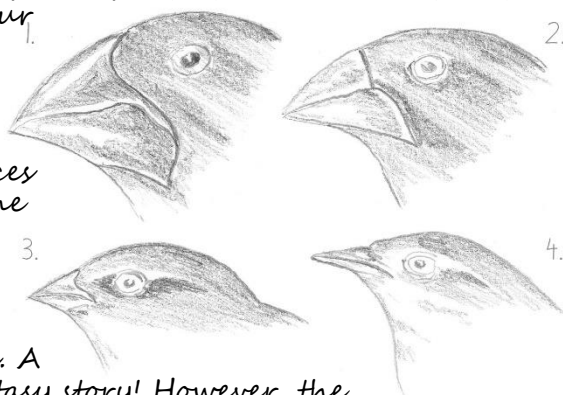
A Week on the Galapagos Islands – 4b – Text

Wednesday 27th March

This morning I awoke to a beautiful, **melodious** bird song. Looking out of the window, I saw a small finch chirping tunefully. Surely a Galapagos finch. Darwin had made sketches of these unusual finches and I had studied them at university, fascinated by their evolution. Darwin had counted about 13 different types of finch living on the Galapagos Islands. All found only on these islands, and nowhere else in the world! Originally, they all had the same shaped beaks and probably came from the mainland. But now their heads – and particularly their beaks – were not all the same. Darwin realised that each finch's beak had gradually adapted to eat the different food available on their particular island. So finches on islands where large, hard-shelled nuts were **prevalent** developed **robust** beaks (far left), and finches on islands where insects or flowers were available developed delicate, pointy beaks (far right). Now I watched an insect-eater with its long, thin beak digging out the insects. Observing **intently**, I tried to sketch the finch just as Darwin had. I watched the result of evolution right in front of my eyes! A-maz-ing! Right now, I am in complete **awe** of the **intricate** beauty of our natural world.

Friday 29th March

Today was different. I wanted to broaden my experiences so I joined with a team of **palaeontologists** to explore the species which may have lived here during prehistoric times. Was evolution apparent even so long ago? I was taken on an exhausting (and sweaty!) hike through the mountains to the site where, only recently, the fossilised remains of a dwarf elephant were discovered. A dwarf elephant...it sounded like something from a fantasy story! However, the team informed me that on small islands, large species can adapt and evolve smaller bodies so as the limited availability of food would be enough to **nourish** them. Wow, I'm astonished! Even millions of years ago, species were adapting and evolving so as they could try to survive! At some point though and for some reason this species became extinct. Maybe it just couldn't adapt enough. Now the delicate fossil in my hand was all that remained. Holding it carefully, I tried to imagine the animal which this fossil once was and its struggle for survival. Nature had **dictated** the fate of this species. Like detectives, the team here continue to research dwarf elephants and their fossils. I wonder what clues they will discover next!



Saturday 30th March

I'm writing as I sit watching a marine iguana. Its short, blunt nose is well-adapted to feeding on sea algae. On one or two islands, marine iguanas have been seen feeding on land plants or grasshoppers, perhaps an adaptation because sea algae, at certain times of year and during certain types of weather, can be very scarce. Lately, scientists here have found that, when food is scarce, the adult marine iguanas will shrink in length and then regrow as food becomes plentiful again. They can switch between growing and shrinking repeatedly throughout their life. A perfect adaptation to the food cycles in Galapagos – nature at its best!



Sunday 31st March

Well my time here is sadly coming to an end. I have marvelled at the incredible beauty of the natural world; observed rare species which only live on the Galapagos Islands; witnessed creatures which have adapted in magnificent ways, allowing animals to survive then reproduce meaning the adaptations can be passed on to future generations and how all this leads to evolution. Even more now, I admire and respect the variations and transformations of life in our world. Let's treasure it forever. Following in the footsteps of Charles Darwin has been a true honour.

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A Week on the Galapagos Islands – 4b – Text

A Week on the Galapagos Islands – Oral Teacher Questions

How is Jenny the same as Darwin? (AF2/AF3) **She writes, thinks and studies the animals of the Galapagos, she is an intrepid explorer, she sailed to the Galapagos Islands, she sketched the finches.**

Explain fully why Jenny visited the Galapagos Islands. (AF2/AF3) **She wanted to follow in the footsteps of Darwin, she wanted to see the unique wildlife for herself, she wanted to observe and investigate the evolution of the wildlife on the islands. It was a life long dream. Expect at least three reasons.**

Explain how Jenny feels about being on the Galapagos Islands. (AF3) **She feels honoured to be able to witness the unique and distinctive wildlife with her own eyes. She feels excited to be following in Darwin's footsteps and feels amazed at the evolution of the wildlife there. She feels in awe of the beauty she witnesses. Accept other feelings which are appropriate and are backed up with evidence from the text.**

Give two reasons why Jenny sketched the finches. (AF3) **To copy Darwin, so she could then compare the beaks of these finches with the beaks of finches on other islands, as a lasting memory of her trip, to capture the beauty of the birds.**

Give two features which tell you this text is a diary. (AF4) **First person, dates are used as sub-headings, personal thoughts and feelings, some informal and chatty language.**

Suggest a suitable caption for the finch sketches. (AF4) **Beak adaptations, evolution of the Galapagos finch's beak, how the Galapagos finch evolved.**

What are the 'secrets' which Jenny refers to about the tortoises? (AF3) **Their adapted shell, the way it feeds and forages, the way it has evolved to survive.**

Why does Jenny use the phrase 'Let's treasure it forever'? (AF5) **She wants us to realise that the natural world is unbelievable and that it is up to us to wonder at and look after every species no matter how small. She also wants us to realise that there are species today which are endangered which our grandchildren may never see and to try to help these species however we can. She wants us to take a moment to appreciate the natural beauty all around us.**

Why does Jenny use the word 'intricate' to describe the beauty of the natural world? (AF5) **To show that even complex and tiny details can be amazing in our natural world. It also suggests that nature is complicated.**

'Was evolution apparent even so long ago?' Jenny asked this question. What does it tell us about her? (AF3) **That she is very inquisitive, that she is always thinking about nature, that she thinks about the past as well as the present, that she wants to understand what is happening/has happened on the islands.**

'Nature had dictated the fate of this species.' What does this phrase mean? (AF5) **Natural circumstances lead to its extinction. Nature is powerful and can allow species to survive or die out.**

How does the author make you feel about the natural world? (AF6) **Accept answers which refer to appropriate feelings using ideas from the text as evidence or reasoned evidence of their own.**

How is this text also persuasive? (AF6) **It could persuade us to: visit the Galapagos Islands, to take more interest in wildlife, to take up biology or palaeontology as a career.**

What three questions would you ask Jenny about her trip or about the wildlife she encountered? (AF3) **Accept any questions which show thinking about the text and Jenny's journey and interests, such as:**

What other animal adaptations did you see?

What other animals did you see?

What other fossils have been found on the islands?

Which is your favourite animal and why?

Will you return to the Galapagos Islands and why?

Write three facts from the diary. (AF2/AF5) **The finches on the individual islands have different shaped beaks, the tortoises on each individual island have different shaped shells, Charles Darwin sailed to the islands in 1835, Charles Darwin was a renowned naturalist, the dwarf elephant is now extinct. Accept other facts derived from the diary.**

Write two examples of informal language used in the diary. (AF2/AF5) **Blergh!, A-maz-ing! Wow! And sweaty!**

How is Jenny the same as Darwin? (AF2/AF3)

Explain fully why Jenny visited the Galapagos Islands. (AF2/AF3)

Explain how Jenny feels about being on the Galapagos Islands. (AF3)

Give two reasons why Jenny sketched the finches. (AF3)

Give two features which tell you this text is a diary. (AF4)

Suggest a suitable caption for the finch sketches. (AF4)

What are the 'secrets' which Jenny refers to about the tortoises? (AF3)

Why does Jenny use the phrase 'Let's treasure it forever'? (AF5)

Why does Jenny use the word 'intricate' to describe the beauty of the natural world? (AF5)

'Was evolution apparent even so long ago?' Jenny asked this question. What does it tell us about her? (AF3)

'Nature had dictated the fate of this species.' What does this phrase mean? (AF5)

How does the author make you feel about the natural world? (AF6)

How is this text also persuasive? (AF6)

What three questions would you ask Jenny about the trip or the wildlife she encountered? (AF3)

Write two facts from the diary. (AF2/AF5)

Write two examples of informal language used in the diary. (AF2/AF5)

A Week on the Galapagos Islands – Vocab 1

Write the meaning of each of these words. (AF2)

archipelago _____

renowned _____

naturalist _____

arduous _____

evolution _____

revolutionised _____

mesmerizing _____

anticipation _____

intrepid _____

hypnotising _____

traits _____

specimens _____

species _____

foraging _____

wanes _____

melodious _____

prevalent _____

robust _____

intently _____

awe _____

intricate _____

palaeontologist _____

nourish _____

dictated _____

Write the meaning of each of these words. (AF2)

archipelago – a group of islands

renowned – known and praised by many, famous

naturalist – a person who studies the natural world, particularly plants and animals

arduous – entailing great difficulty or endurance, laborious

evolution – the process of gradually changing and adapting to an environment over time, which may result in a new species

revolutionised – to radically alter in ways that have widespread effect

mesmerizing – to hold the attention of, as if in a trance

anticipation – expecting or hoping

intrepid – feeling or showing no fear, brave, courageous

hypnotising – to put into a trance like state

traits – characteristics which makes an animal or person different from others

specimens – examples (of a species)

species – a group of animals or plants which are similar and can produce young

foraging – to search for food

wanes – to become slowly less in size

melodious – having a pleasant melody or tune

prevalent – widespread, plenty

robust – strong and sturdy

intently – concentrating hard and being very focused

awe – a very strong feeling of wonder mixed with respect or fear

intricate – having many complex or elaborate parts, angles or aspects

palaeontologist – a scientist who studies animal and plant fossils

nourish – to supply with food needed for life and growth

dictated – to state or order with authority

A Week on the Galapagos Islands – Vocab 2

Think of an antonym for each of these words from the diary.

<u>word</u>	<u>antonym</u>
robust	
arduous	
prevalent	
intricate	
intrepid	
renowned	

Use each of your antonyms in a sentence, using your knowledge from Jenny’s diary to help you.

Think of an antonym for each of these words from the diary.

<u>word</u>	<u>antonym</u>
robust	weak, fragile
arduous	easy, effortless
prevalent	rare, scarce
intricate	simple, straightforward
intrepid	cowardly, timid
renowned	unknown

Use each of your antonyms in a sentence, using your knowledge from Jenny's diary to help you.

Word endings -able/ -ible

Jenny uses some words which end in *-able* or *-ible*. Choose the correct ending for the words below.

TOP TIP 1; A complete root word usually comes before *-able*.

comfort_____

poss_____

avail_____

incred_____

enjoy_____

reason_____

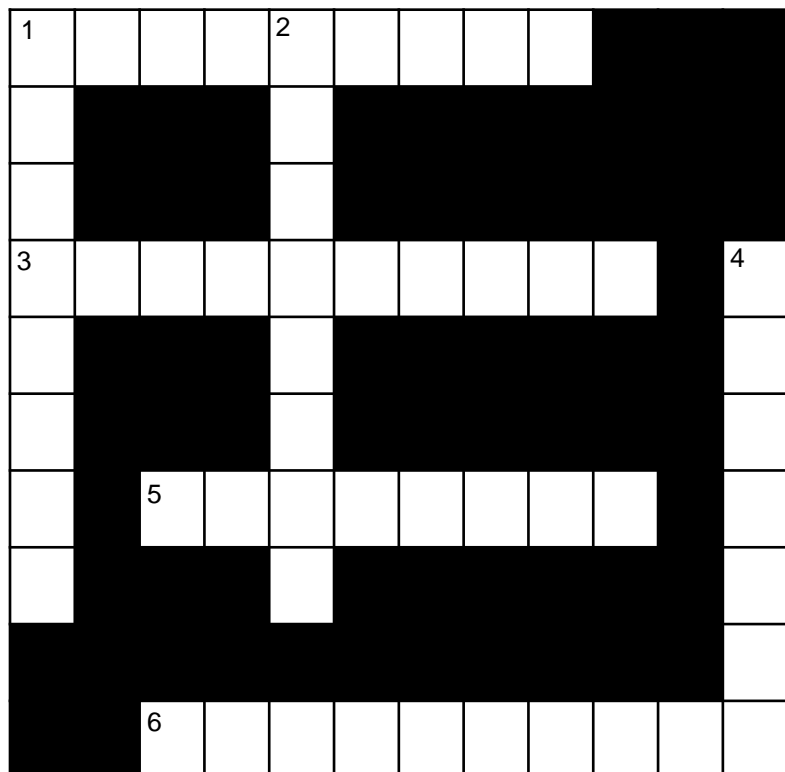
horr_____

understand_____

TOP TIP 2; Usually, if the root word ends in an 'e', chop it off before adding *-able* or *-ible*.

TOP TIP 3: If the root word ends with *-ce* or *-ge*, then keep the e. For example; changeable

Complete the crossword, using the clues to help you. The answers are all *-able* or *-ible* words. Use the top tips to help you spell each word correctly.

Across

1. The iguana's size is ad__ t ____ depending on the weather or time of year.

3. The evolution of the tortoises' shell is _ e _ a _ k ____.

5. The information from the palaeontologists was r _ l ____.

6. The tortoise's adapted shell shape was n _ t _ c ____.

Down

1. The finches were _ d _ r ____.

2. The journey to the island was _ e _ r ____.

4. The finch was __ s ____ from Jenny's window.

Word endings -able/ -ible

Jenny uses some words which end in *-able* or *-ible*. Choose the correct ending for the words below.

TOP TIP 1; A complete root word usually comes before *-able*.

comfortable

possible

available

incredible

enjoyable

reasonable

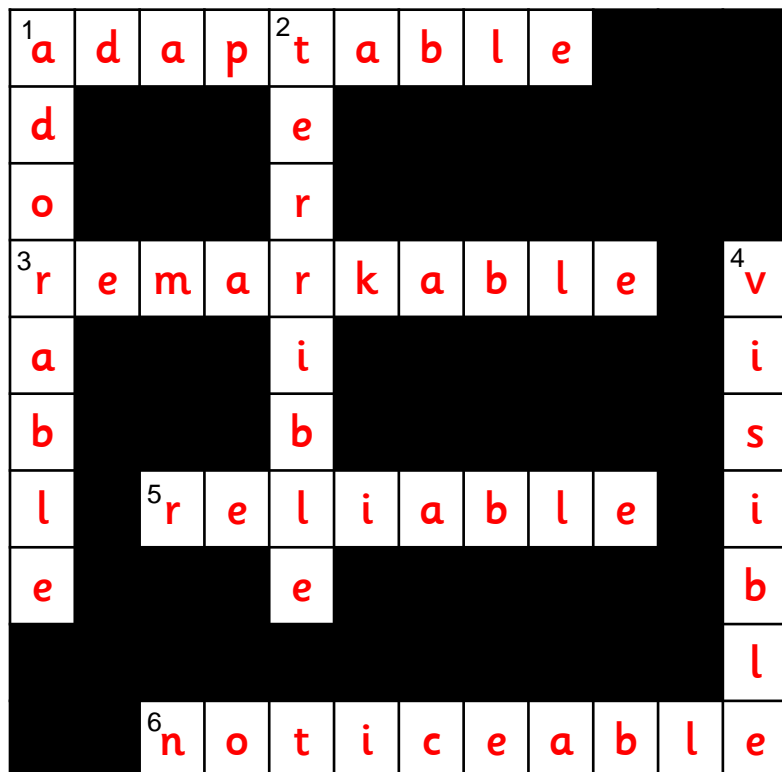
horrible

understandable

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