Reading extract and questions:
Year 5-6
Darwin – the evolution of an idea
Set A/B

Have you ever noticed how you can start off intending to do one thing yet end up doing something completely different? That doesn't necessarily mean that it's been a disastrous waste of time. In fact, it could result in something truly life-changing. Take the life of Charles Darwin, for example.

The theory of evolution

You will, no doubt, know that Darwin (1809 – 1882) was a key figure in the development of the theory of evolution. This idea (still controversial for some) suggested how animals undergo tiny changes from generation to generation. These changes that help creatures adapt to their environments will be passed on to their offspring to improve the species so that it continues to thrive and reproduce. The ones that don't … well, let's just say that nature takes care of them.

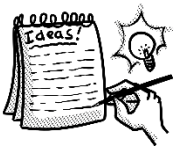
Education

Darwin started by following in his father's footsteps: he began training to be a doctor in Scotland. However, he soon tired of his studies at medical school so his disappointed father sent him to Cambridge University. Here, he was supposed to be working towards a respectable profession in the church. Even though he studied hard, he also became a keen collector of beetles in his spare time, reflecting his growing interest in nature. After that, he started learning about geology – the study of rocks, soil and so on.

As a result, he was invited to join an expedition to South America on a ship called *HMS Beagle*. His job would be to investigate the geology and collect wildlife specimens while the rest of the crew mapped the coastline.

Secrets of the stones

On *HMS Beagle*'s first stop at Cape Verde – a group of islands off the coast of Africa – Darwin made a fascinating discovery. High in the volcanic cliffs, he found a layer of rock containing seashells. This made him think that great changes must be happening to the planet, probably over a very long period of time.

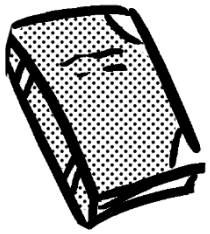


Rocks yielded more remarkable discoveries when they reached South America. Here, Darwin found fossils of extinct mammals alongside shells that suggested these animals had died out fairly recently. What's more, there were no signs of natural disasters or major climate change. This made Darwin begin to wonder what might cause a species to be wiped out.

Life-changing discoveries

Darwin noticed how some of the islands visited by the *Beagle* had their own distinct varieties of certain animals. This was interesting because, in those days, people had believed that all the world's creatures had been made at the same time by the same creator. If that was so, why bother to make slightly different versions of the same animal? Could it be that the design of life was not as fixed as had previously been thought?

By the time *HMS Beagle* had completed its five-year, round-the-world voyage and returned to England, Darwin's thoughts were beginning to take shape. It would take many years, plenty of further research and numerous conversations with other scientists before he published probably his most famous work, *On the Origin of Species*. It would take even longer for his ideas to become widely accepted by the scientific community and the public in general.



Questions for *Darwin* Set A

Vocabulary:

1. Look at the first paragraph. **Find and copy** a word that means *planning*.

_____

2. … *from generation to generation* … This means …

_____

3. … *Rocks yielded more remarkable discoveries* … What does the word **yielded** mean in this sentence?

_____

Retrieval:

4. In which year was Darwin born?

_____

5. Where did Darwin start training to be a doctor?

_____

6. Where did *HMS Beagle* stop first?

_____

Inference:

7. Find and copy a group of words that suggests Darwin was not the only person to help develop the theory of evolution?

_____

8. What was Charles Darwin's father's job?

_____

9. Why did it seem strange to find seashells in a layer of rock on Cape Verde?

_____

Summarise:

10. Here are some summaries of different paragraphs in the text. Number them from 1 to 4 to show the order in which they appear in the text.

- ☐ Darwin found interesting fossils in South America.
- ☐ Darwin's education was not straight-forward.
- ☐ Darwin eventually turned his ideas into a book.
- ☐ Darwin noticed that some types of animals were slightly different from island to island.

Predict:

11. What do you think would happen to any changes in animals that did not help them adapt to their environments? Use evidence from the text to support your answer.

_____

_____

_____

Authorial intent:

12. *… the evolution of an idea…* Suggest **two** reasons why these words were used in the heading.

_____

_____

_____

Questions for *Darwin* Set B

Vocabulary:

1. Look at the second paragraph. **Find and copy** a word that means *children.*

_____

2. …. *followed in his father's footsteps …* This means …

_____

3. Look at the *Life-changing discoveries* section. **Circle** the word below which is closest in meaning to *distinct*.

interesting **strange** **separate** **colourful**

Retrieval:

4. In what year did Darwin die?

_____

5. Which continent was the crew of HMS Beagle going to map?

_____

6. How long did HMS Beagle take to sail around the world?

_____

Inference:

7. Find and **copy** a group of words that suggests the reader should have already studied Darwin.

_____

8. Look at the second paragraph. How does it suggest that evolution is still not accepted by everyone?

_____

9. How can you tell that Charles Darwin's father would have preferred him to stay at medical school?

_____

Meaning as a whole:

10. Draw lines to match each section to its main content.

The theory of evolution	Darwin's discoveries in rocks and fossils.
Education	Darwin's observations of island animals.
Secrets of the stones	How animals adapt to their habitats.
Life-changing discoveries	What Darwin did at University.

Authorial intent:

11. *Life-changing discoveries…* Suggest **two** reasons why the author used these words as a sub-heading.

_____

_____

_____

Compare:

12. The sections headed *Secrets of the stones* and *Life-changing discoveries* both describe Darwin's thoughts and observations but in what ways are they different? Use evidence from the text to support your answer.

_____

_____

_____

_____

Answers for *Darwin*

Set A:

Vocabulary:
1. intending
2. being passed on from parent to child, again and again
3. gave or produced
Retrieval:
4. 1809
5. Scotland
6. Cape Verde
Inference:
7. (Darwin … was) a key figure (i.e. not the only one). Also accept numerous conversations with other scientists
8. doctor
9. because they were high up in the (volcanic) cliffs
Summarise:
10.

2	Darwin found interesting fossils in South America.
1	Darwin's education was not straight-forward.
4	Darwin eventually turned his ideas into a book.
3	Darwin noticed that some types of animals were slightly different from island to island.

Predict:
11. Accept answers that suggest the changes would not be passed on from generation to generation. The text says that changes that help creatures adapt are passed on but nature takes care of those that don't, which means that those changes don't last/stay.
Compare:
12.
a. The theory of evolution is the main idea for which Darwin is famous.
b. Evolution means 'gradually develop' and the text is about how Darwin gradually developed his ideas/Darwin's ideas evolved as he made discoveries/His ideas changed when he found fossils etc.

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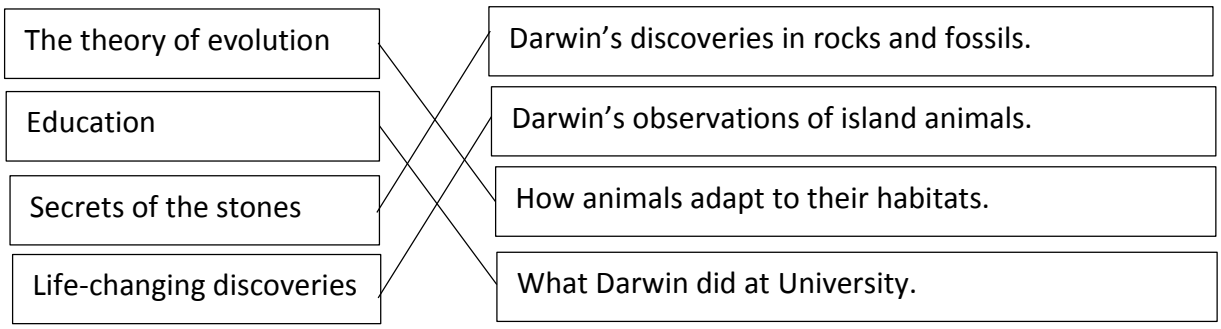
Answers for *Darwin*

Set B:

Vocabulary:
1. offspring
2. He did what his father had done before him (trained to be a doctor).
3. separate
Retrieval:
4. 1882
5. South America
6. five years
Inference:
7. You will, no doubt, know ...
8. It says (still controversial for some)
9. It says he was disappointed when he (took him out of medical school and) sent him to Cambridge University.
Meaning as a whole:
10.



Authorial intent:
11.
a. The section is about how species can change over time and from place to place.
b. Darwin's discoveries changed his own life (making him famous).
Also accept responses referring to Darwin's discoveries changing the way people think about life/belief in how animals change over time etc.
Compare:
12. The difference is whether he was looking at things that were living or non-living. *Secrets of the stones* focuses on rocks, fossils and animals that were no longer living, and includes Darwin's interest in how species become extinct. On the other hand, *Life-changing discoveries* focuses on Darwin's observations of living creatures and how they differed from place to place (hence the opening words: *Back in the land of the living*).

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