

DARWIN LEARNING TRAIL

AT DOWN HOUSE



Hello, I'm Charles Darwin. Welcome to my home. I lived and worked here for 40 years. My family and staff will show you around.

At Down House, I developed my theory of evolution and wrote my most famous work called *On the Origin of Species* (1859). Scientists, like me, look at the natural world and collect evidence to make conclusions.

Your job is to find evidence around my home so that you can come to your own conclusions about my life and work.

Get into groups of three and decide who is going to be the object finder, the room/garden observer and the family investigator. You might want to work as a team on some of the more difficult questions.

You can start anywhere but make sure you see every location. Use the answer sheet to record your answers, find definitions for key words and note down any new words you discover. At the end of the trail, you can use the summary questions to conclude your investigation.



OBJECT FINDER



ROOM/GARDEN OBSERVER



FAMILY INVESTIGATOR

DOWNSTAIRS

DRAWING ROOM... Hello, I'm Etty. In the evenings, mother played the piano in this room while father listened on the chaise longue. Father sometimes placed pots of worms on top of the piano to see if they would move to the vibrations!



Find mother and father's backgammon board. They played almost every evening and kept score.

By 1876 father had won 2490 games and mother had won 2795. How many points was she winning by?

Father said the first wallpaper in this room was 'the exact colour of mud streaked with rancid oil', so it was replaced.

Describe or sketch the wallpaper you see today.

There are different portraits around the room showing my family and people who were important to us.

Look at the pictures and write down two items of Victorian clothing you can see.

OLD STUDY... Hello, I'm Leonard. When I was little, I wanted father to leave his study and play with me during work hours. I even tried to bribe him with sixpence! English Heritage used the photos I took of the study to restore this room.



LEONARD

All around father's study, you will see the equipment which he used to conduct his scientific experiments.

Write down three objects that interest you. What do you think my father used them for?

This study faces north, away from the sunshine. Father liked to work in light which produced no or little heat, known as 'cold light'.

Why do you think he preferred cold light conditions for experiments?

When father got ill, he changed his office furniture to keep him mobile.

Look at the chair, table and stool - what do they all have in common? Why did he adapt them in this way?



PARSLOW

BILLIARD ROOM... Hello, I'm Parslow, the family butler. This used to be the dining room until Mr. Darwin turned it into the billiard room. Whenever he wanted to play, he would tug the bell-pull in the Old Study to call me in for a game.

When there wasn't enough space in his study, Mr. Darwin used to spread his work out on the billiard table.

Find the small skulls and bones. Which animals from the garden do you think they belong to?

Find Darwin's favourite photograph of himself, by Julia Margaret Cameron.

What did Darwin write on this photograph? Copy it down.

In 1857 Mr. Darwin sold his father's gold watch to pay for an expensive billiard table. His children were horrified.

Discuss: Do you agree or disagree with Mr. Darwin's actions? Why?

DINING ROOM... Hello, I'm Mrs Evans, the household cook. The dining room was designed to have great views over the garden. At 1pm every day, the whole family stopped what they were doing so they could eat together.



MRS. EVANS

The dinnerware displayed on the table is part of the famous 'waterlily' Wedgwood collection.

Why can't we let you touch the objects on the table? Write down two possible reasons.

The Darwins put in a large bay window in order to improve the view of the garden.

Describe or sketch three things you can see in the garden through the window.

Mr. Darwin liked to eat bananas for pudding. He tried to grow tropical plants in a case in the drawing room but it was too small.

What did Mr Darwin build alongside the greenhouse to fix this problem?

UPSTAIRS



EMMA

BEDROOM... Hello, I'm Emma, Charles's wife. This was our bedroom from 1858. It is the biggest room in the house, with excellent views of the garden. I used to read to Charles while he rested on the sofa after he finished reading and writing letters at 3pm.

Find a book called *The Jumping Frog* by Mark Twain. Charles kept a copy by his bed and would read from it when he had trouble sleeping.

Read some of the story. Is it fiction or nonfiction? How do you know?

Look at the garden through the window. What is the first thing that catches your eye?

Write it down and investigate it more closely when you go outside.

Find our dressing closet. My daughter, Ety, remembers dressing up in my clothes.

Feel free to do the same! Draw your favourite item of clothing.

SCHOOL ROOM... Hello, I'm William, the eldest son. This room was first used as a nursery and then a school room when we got older. My parents were not typical, strict Victorian parents. They actively encouraged us to have fun.



WILLIAM

Find the stair slide displayed on the wall. I remember we used to cover a run of eight steps and slide down it!

Write down one memory you have of having fun or playing at home.

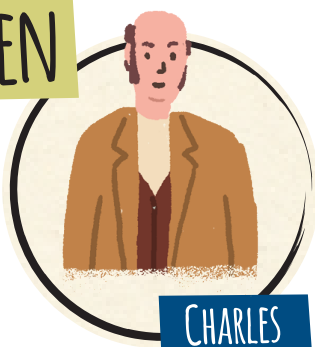
When I was a teenager, I scratched my name on the cupboard shelf in the school room.

Copy down exactly what I wrote.

Find the school room window. We used to lean out of it and try to touch the mulberry tree.

Guess the distance, in centimetres, between the windowsill and the tree.

GARDEN



CHARLES

LAWN... Hello, it's Charles. I did my 'lawn plot' experiment here. For three years, I allowed a patch of lawn to grow long. I wrote down all of the plant species I could see. In year one I counted 20 different plants and by year three, only 11 had survived. A small change to the lawn plot had let some plants take over.

Find a clear patch of lawn and measure out a rectangle which is about 4 feet wide and 3 feet long (use your own feet to help).

Write down all of the different plants you can see on this patch.

Walk around and look at the lawn beneath your feet. Are there any light, dark, dry or wet patches?

Write down any differences you observe as you walk around.

My daughter, Ety, remembers 'the lawn burnt brown, the gardens a blaze of colour'.

List ten colours you can see in the garden today.



FRANCIS

GLASSHOUSE & LAB... Hello, I'm Francis. The glasshouse still houses the same specimens that father used for his experiments. The study of plants is called 'botany'. I learnt a lot about plants during my childhood and eventually became a botanist. There is also a lab attached to the glasshouse.

Father was fascinated by the insect-trapping tentacles of the sundew. He also observed wild cucumber to find out how climbing plants actually climb.

Choose a plant in the glasshouse and draw it as accurately as you can.

Father added a hothouse into the greenhouse so he could grow exotic plants.

Look at the vents at the top of the roof - why do you think they are there?

Find the beehive in the lab. Father observed bees and recorded changes in their nests to support his theory of evolution.

What shape is found in honeycomb? How many sides does it have? Draw it.

WORMSTONE... Hello, I'm Horace, the youngest son. With father's help, I built the 'Wormstone' experiment under the chestnut tree. I discovered that soil was being moved by earthworms wiggling around underground. The scientific word for this is 'displacement'. Each year, the stone sank 2mm due to the worms displacing the soil.



HORACE

Father and I invented a measuring device which we placed on top of the Wormstone. It is now on display in the exhibition.

Design your own device to measure how much soil has been moved by the earthworms.

Outdoor experiments can be tricky because of the weather.

Name three types of weather that could make it difficult to conduct an outdoor experiment.

I learnt about science by asking lots of questions. I eventually became a scientific instrument manufacturer.

Write one question you could ask your teacher about something you've seen today.



GEORGE

SANDWALK... Hello, I'm George. You are now at the Sandwalk. During his daily walks around the shady path, my father would think about his day's work. Since the 1930s people have been calling it the 'thinking path'. This would be an excellent place to reflect on what you have learnt today. By this point, you've probably collected lots of evidence which you can share and compare with your class mates. To conclude your investigation, answer these summary questions:

1) Which three words would you use to describe the Home of Charles Darwin?

2) What is the most interesting thing you have discovered about Darwin and his family?

3) If Darwin was still alive, what would you want to ask him about his life or his work?

THANK YOU FOR INVESTIGATING DOWN HOUSE:
THE HOME OF CHARLES DARWIN