











Technology Around Us: The Story of Information Technology

National Curriculum Recognise common uses of information technology beyond school.		Lesson Duration It is estimated that this lesson will take approximately 60 minutes.	
Aim To understand how information technology has changed and developed over time.			
Success Criteria I can describe how computers have changed over time. I can order digital devices on a timeline. I know about some of the people who have helped to change information technology.		Key Vocabulary Change, chronology, development, information technology, timeline.	
Resources Lesson Pack Scissors Glue		Preparation Knowledge Organiser – one per child (This contains all the key knowledge for the unit and will be used during every lesson.) Differentiated Computer Timeline Activity Sheets – one per child as required.	

Prior Learning: In Lesson 4, children learnt about digital devices and how these can be connected to allow the sharing of information. Before starting this lesson it would be helpful, but not essential, if children were familiar with the term chronology and had previous experience of ordering objects, people or events along a timeline.

Learning Sequence

	Remember It: Use the corresponding slides of the Lesson Presentation to remind children about the difference between digital technology and other types of technology. Use thumbs up and thumbs down to encourage participation and to assess whether pupils have a good understanding of this concept. Click on each image to show the answer.				
	Computers Past and Present: Use the corresponding slides of the Lesson Presentation to develop an understanding of the history of computing. Ask the children: Can you think of any machines we use today that do calculations for us? Children may think of computers, tablets, mobile phones, calculators and tills in shops. When comparing the Manchester Baby computer with a modern desktop computer and when exploring the computer timeline ask the children: How have computers changed over time? Encourage children to think about the size and weight of each one, how easy it is for someone to use them, what they might cost, what materials they are made of and what jobs they may perform. Some children may think that the size and complexity of the Manchester Baby would make it more powerful than a modern computer. In fact, the first computers were very slow and could only perform limited tasks whereas modern computers, despite their ever-decreasing size, are very fast and can run many programs.				
	Computer Timeline: Develop children's understanding of chronology and how technology changes over time with the differentiated Computer Timeline Activity Sheets . In this task, children are required to sort images of computing devices into time order to create a timeline. More able children should begin to explain how they have ordered the devices by identifying how the technology has changed and developed.				
	Children to place four computing devices into chronological order.		Children to place four computing devices into chronological order and give one example of how they have changed over time.		Children to place five computing devices into chronological order and give examples of how they have changed over time.



Important People in IT: Use the corresponding slides of the [Lesson Presentation](#) to introduce children to a range of individuals who have made a significant impact on the development of information technology.



When learning about the work of Sir Tim Berners-Lee and the World Wide Web, ask children to discuss the positives and negatives of sharing information on the World Wide Web. Ensure that children understand that being able to share information in this way could not happen before the World Wide Web and that its invention changed the way in which we communicate, work and learn. Encourage children to think about online safety. Being connected to other people means that we have to be careful about the information we share. Ensure that children know that they should not share personal information that could identify them to someone else.

Finish the lesson by asking children to reflect on the people they have learned about. Ask children to choose one person who they feel has made the most impact on IT and explain why.

Explore it

Research it: Ask children to research one of the people introduced in the [Lesson Presentation](#). They could produce a Top 10 Facts About... Poster to display in the classroom.

Order it: Develop children's skills of chronology by building timelines with other technologies. Challenge children to order the communication devices on the _____ to create a timeline.

Assessment Notes:

Disclaimer

We hope you find the information on our website and resources useful. This resource refers to the use of scissors. You are responsible for the safe use of these resources including following any manufacturer's instructions or guidance. We are not responsible for the health and safety of your group or environment and so, insofar as it is possible under the law, we cannot accept liability for any loss suffered by anyone due to the use of this resource.



Computing

Technology Around Us

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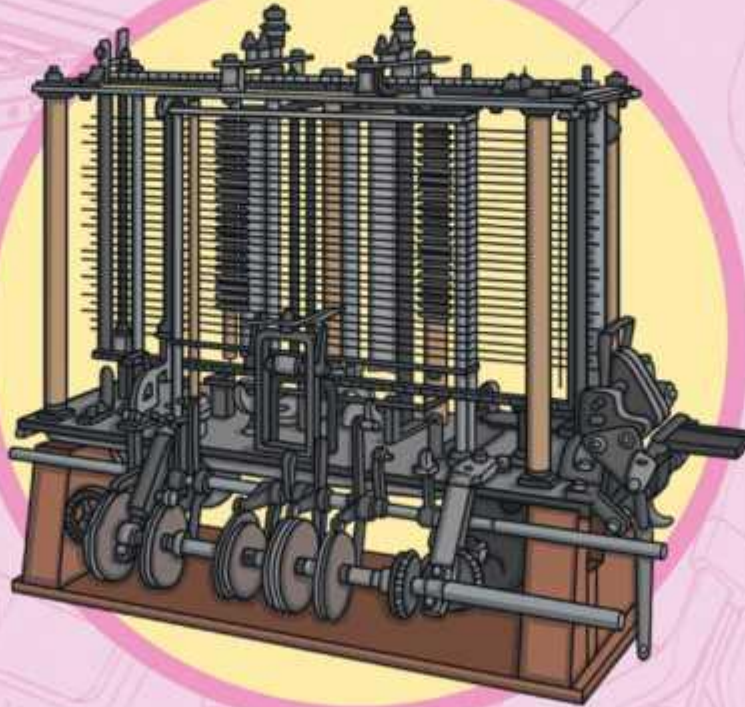
Animations

This resource has been designed with animations to make it as fun and engaging as possible and would therefore be best viewed in PowerPoint, as using other presentation software may cause the misplacement of text and other formatting issues.

To view the content in the correct formatting, please open the presentation in Microsoft PowerPoint and view it in 'slide show mode'. This takes you from desktop to presentation mode. To enter slide show mode, go to the **Slide Show** menu tab and select either **From Beginning** or **From Current Slide**.

You may wish to delete this slide before beginning the presentation.

The Story of Information Technology



Meet Quizby!

Can you spot me in the
Lesson Presentation?



The questions that appear will help you to think about the key learning throughout the lesson.

Aim

- To understand how information technology has changed and developed over time

Success Criteria

- I can describe how computers have changed over time.
- I can order digital devices on a timeline.
- I know about some of the people who have helped to change information technology.

Remember It

Digital technology is something that transfers, processes or stores information.

On the next slide you will see some items.
Decide whether they are examples of digital technology or not.



Put your thumb up if it is digital technology.



Put your thumb down if it is not digital technology.

Remember It

Can you spot the digital technology?
Click on each image to see if you were right.



Computers Past and Present

Did You Know?

The very first 'computer' was actually a person! The word computer was used to describe people who were paid to do complicated sums or calculations.

Many scientists and inventors wanted to make a machine that would be able to do difficult calculations. They thought that a machine would be able to do them more quickly than a person. They also thought that a machine would make less mistakes.



Can you think of any machines we use today that do calculations for us?

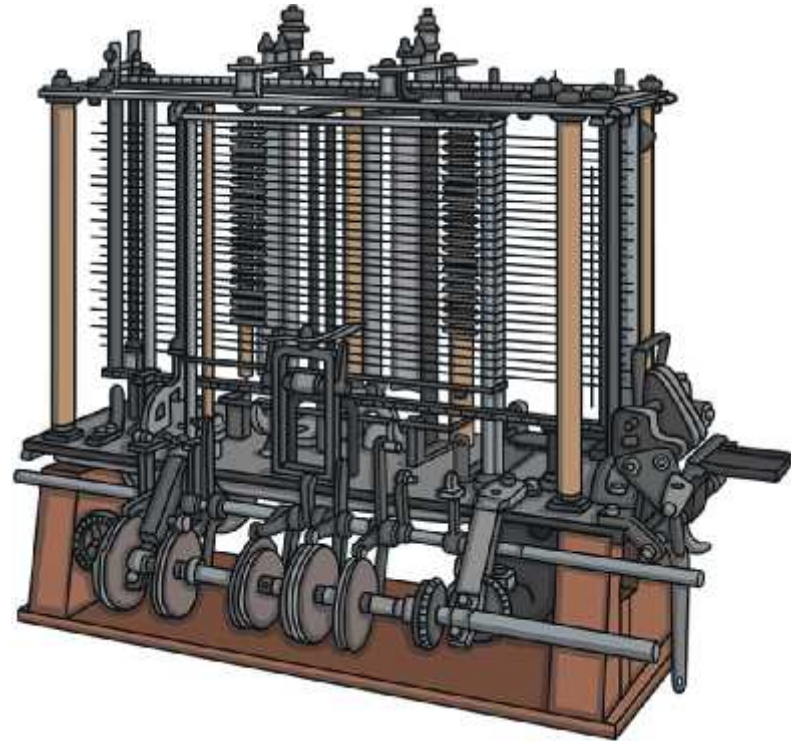


Computers Past and Present

The designs for the first mechanical computers were created by a man called Charles Babbage almost 200 years ago!

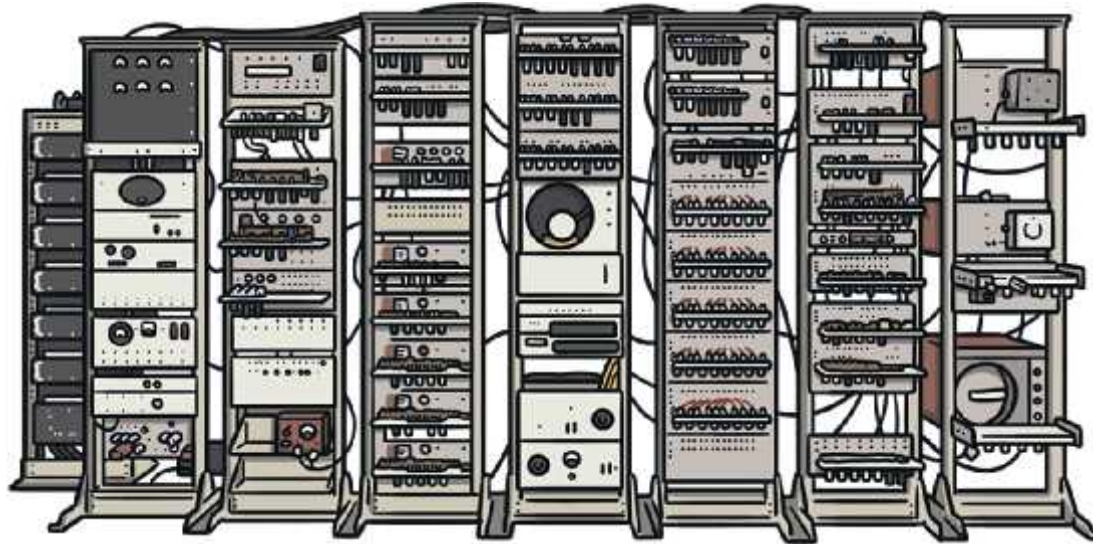
He came up with the idea of how computers might work but never had the chance to build one before he died.

Does this look like any of the computers that we use today?



Computers Past and Present

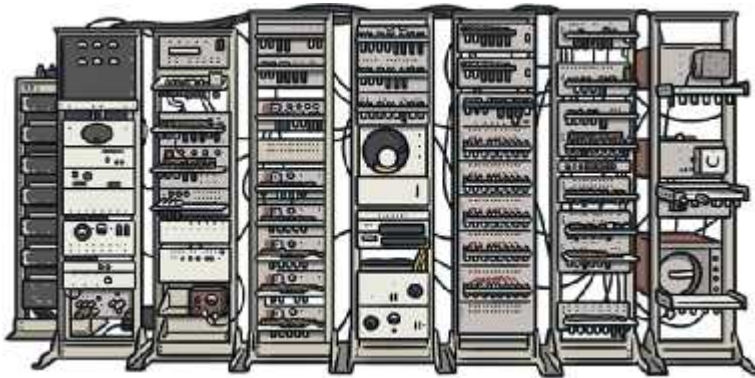
This is a picture of one of the very first modern electronic computers. It is nicknamed the Manchester Baby. It ran its first program in 1948.



The Manchester Baby computer was special because it was the first computer to be built with a memory. A program could be stored on the computer.

Computers Past and Present

Compare the Manchester Baby with a modern day computer.
What is different about them?



Computers Past and Present

Look at this timeline of the modern electronic computer.
Click on each digital device for extra information.

Modern computers are small and lightweight. They can fit into your hand, your pocket or even be worn on your wrist.

Tablets, smartphones and smartwatches are all examples of modern personal computers.

These computers are fast, powerful and easy to operate.



1940

X

How have computers changed over time?



2020

Computer Timeline


Use the **Computer Timeline Activity Sheets** to sort the different computers into chronological order from the earliest to the most modern.


Computer Timeline


To understand how information technology has changed and developed over time.


Look at the pictures of the computers. Cut them out and stick them onto the timeline in chronological order.

earliest latest





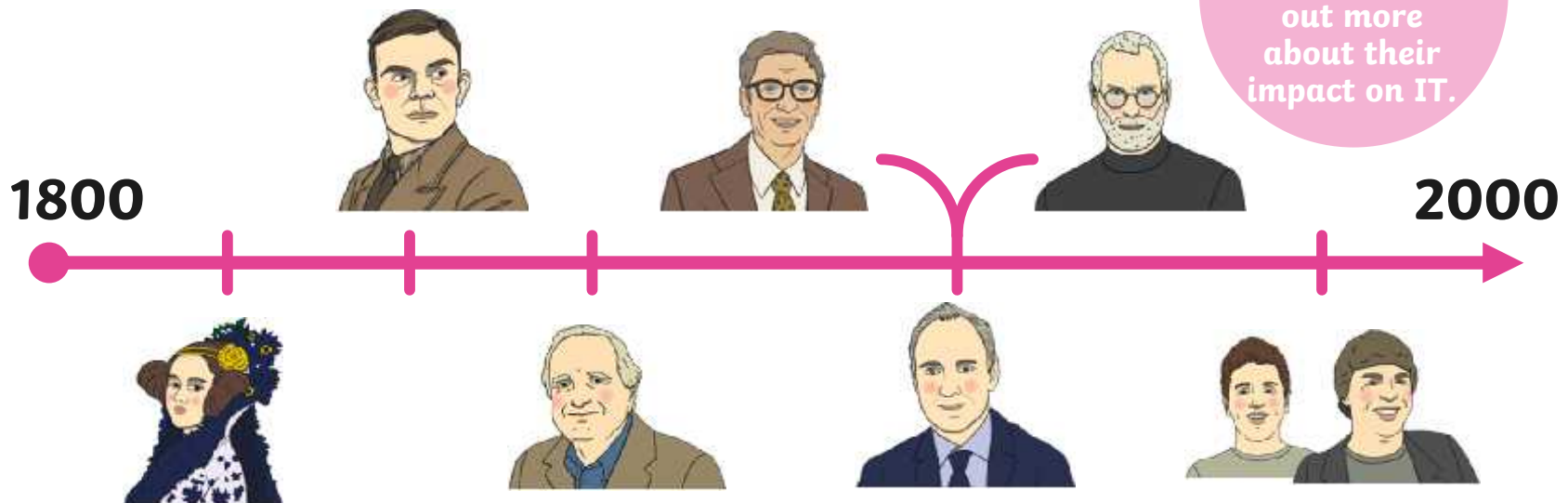




Important People in IT

Look at this timeline. It shows some of the people who have been important in the development of information technology. Click on each person to find out more about them.

Click on each person's picture to find out more about their impact on IT.



Talk About It:

Which of these famous people do you think has made the greatest impact on information technology?

Important People in IT

Ada Lovelace was born more than 200 years ago. She is sometimes called the 'first computer programmer' even though she lived at a time when there were no computers at all!

Ada Lovelace looked at the machines designed by Charles Babbage. She wrote the first ever **algorithm**.

Did You Know?:

An algorithm is a set of instructions for solving a problem or completing a task.

Ada Lovelace
1815 - 1852

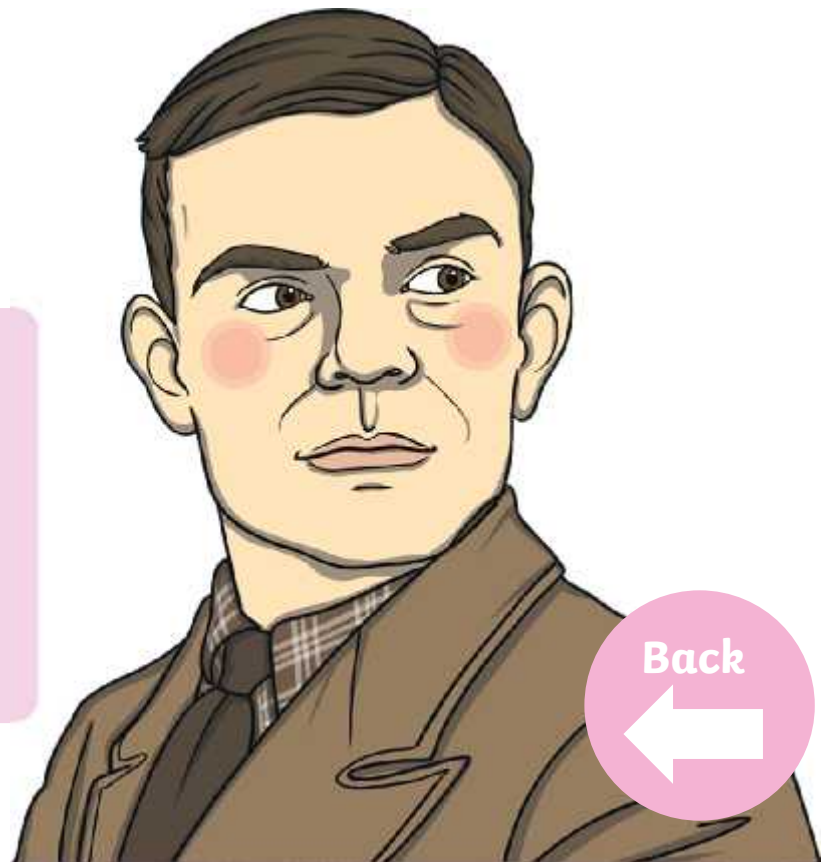


Important People in IT

Alan Turing was a mathematician. He was a brilliant code breaker and he worked for the British Government during the Second World War.

He invented a universal computing machine that could decode and perform any set of instructions. It was never built but his design was used as a model for all of our modern computers.

Alan Turing
1912 - 1954



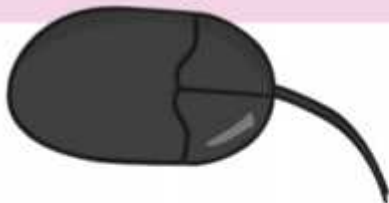
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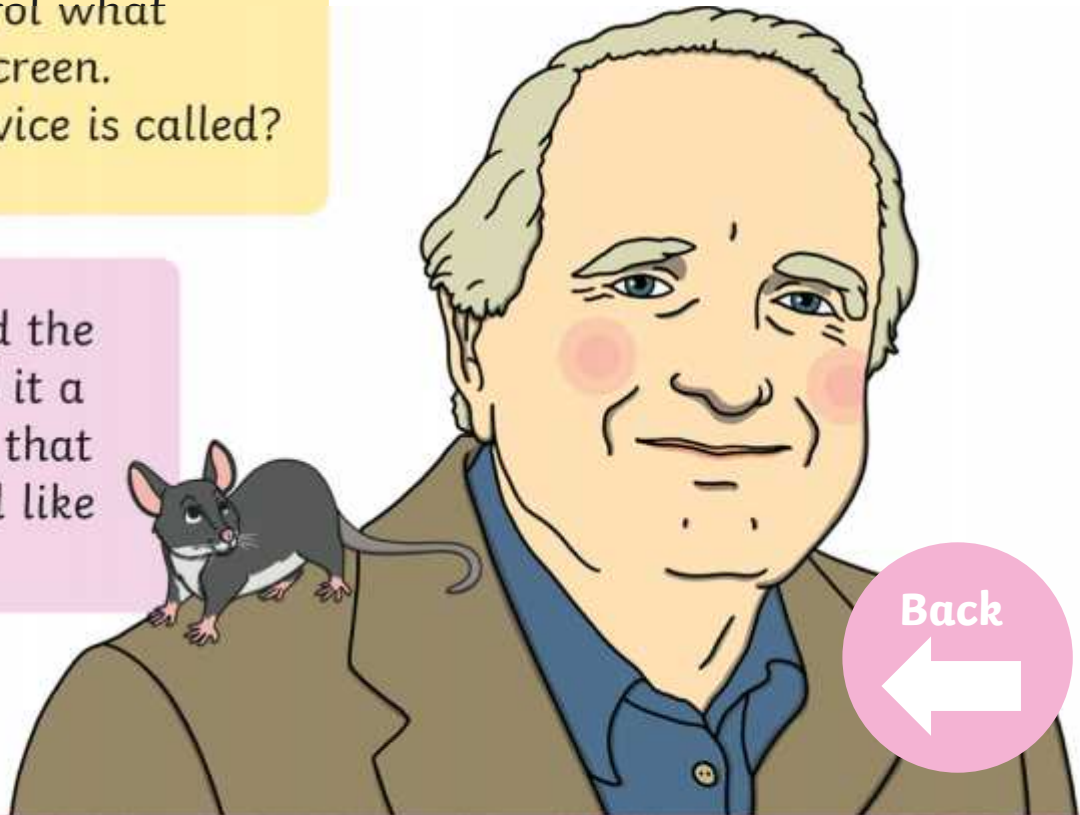
Important People in IT

Douglas Engelbart is famous for inventing a pointing device that made it easier for people to control what happened on a computer screen. Do you know what this device is called?

Douglas Engelbart invented the computer mouse. He called it a mouse because he thought that the wire at the back looked like the tail of a mouse.



Douglas Engelbart
1925 - 2013



Important People in IT

Bill Gates

1955 - present

Bill Gates started a company with his friend Paul Allen. It was called Microsoft.

Microsoft created an easy to use operating system called Windows. By clicking buttons on the screen, Windows let people store and run files, connect to the Internet or play games

Did You Know?:

Windows is the most widely used operating system in the world?



Back

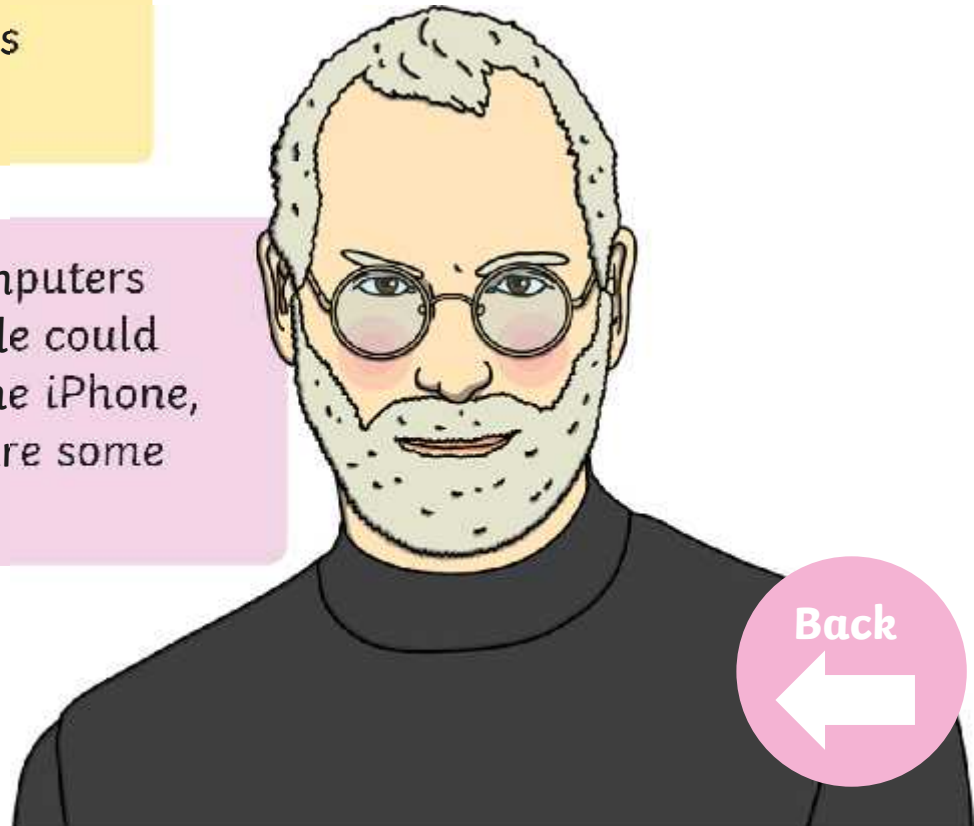


Important People in IT

Steve Jobs
1955 - 2011

Steve Jobs was a computer scientist. In 1976 he started a very famous computer company called Apple

Steve Jobs wanted to create computers that were mobile and that people could carry or even wear. The iPod, the iPhone, the iPad and the Apple Watch are some of Apple's inventions.



Back



Important People in IT

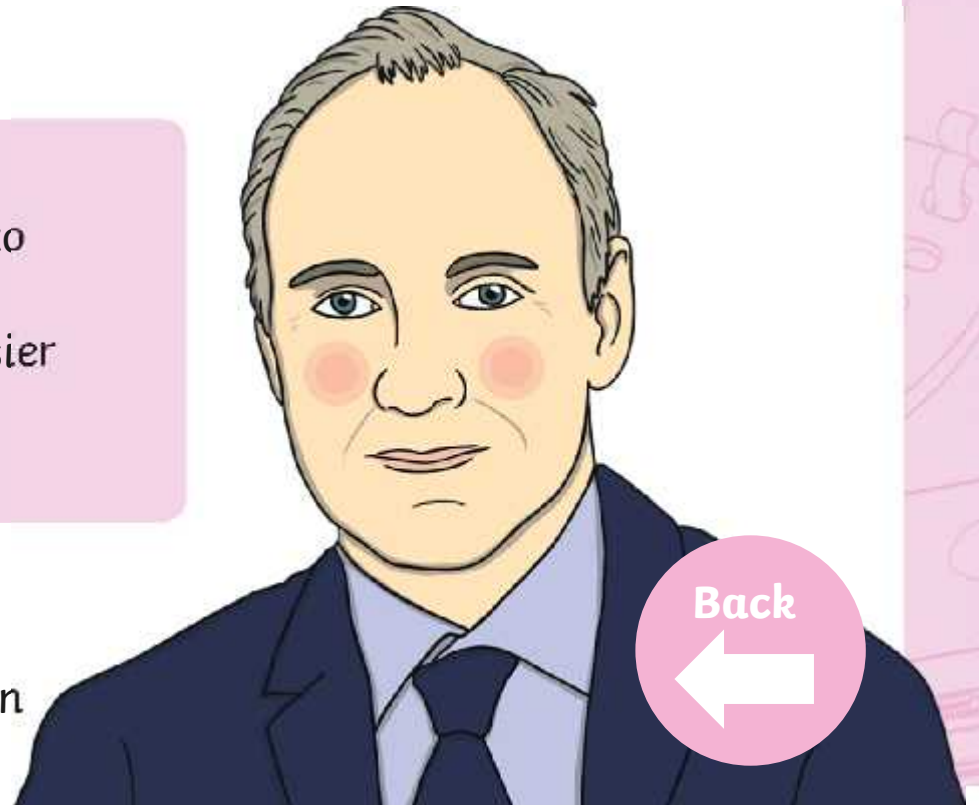
Sir Tim Berners-Lee invented something so important that it changed the world forever. Do you know what it was?

He invented the World Wide Web. This important idea allowed people to organise, link and search through millions of web pages. It made it easier for people from all over the world to share information.

Talk About it:

What are the good and bad things about being able to share information on the World Wide Web?

Sir Tim Berners-Lee
1955 - present



Back



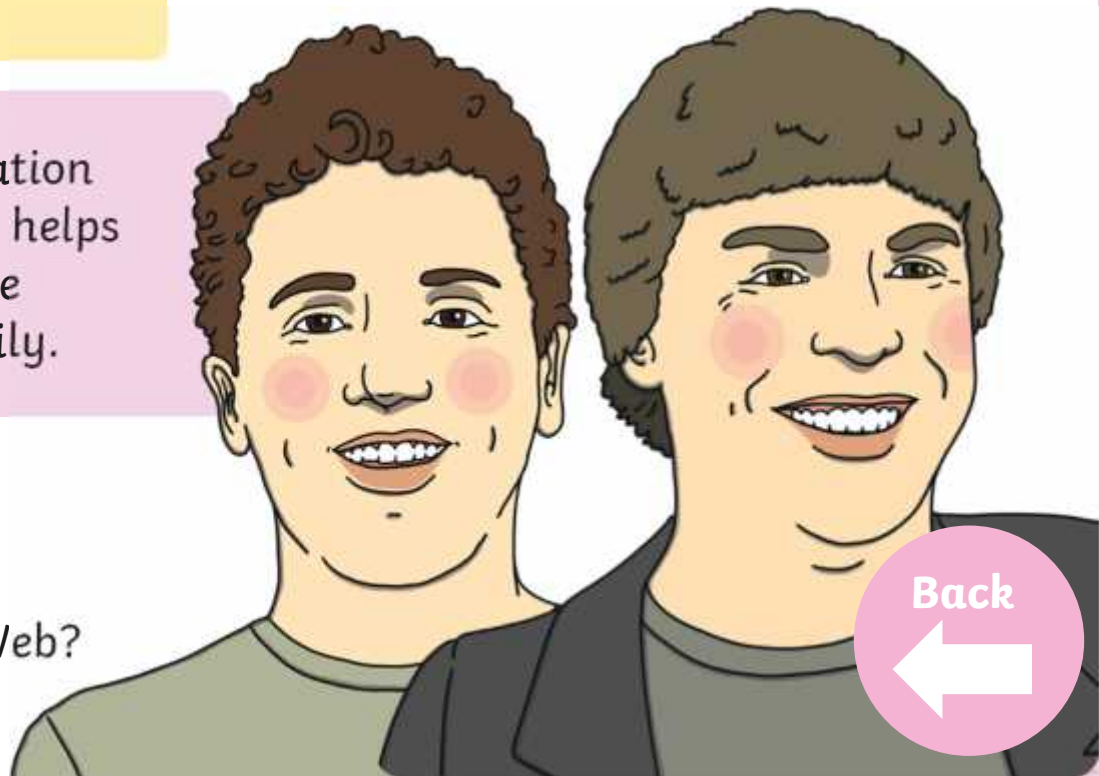
Important People in IT

These two friends created the top search engine in the world. They called it Google.

**Sergey Brin
& Larry Page**

Google searches for information on the World Wide Web.. It helps people to find what they are looking for quickly and easily.

Have you used Google to search the World Wide Web?

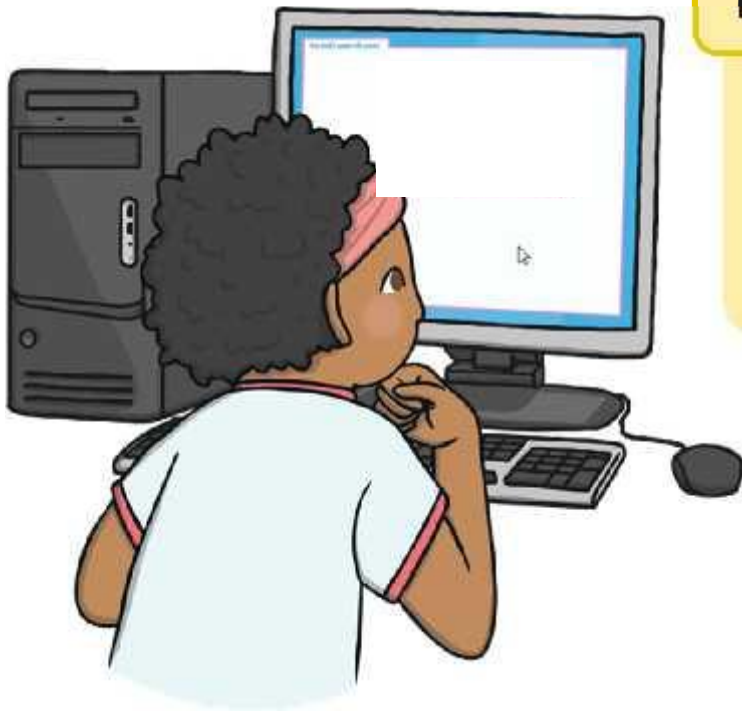


Back



Important People in IT

In this lesson, you have learnt about just some of the people who have helped create the information technology we use today.



Think About:

Who do you think has had the biggest impact on information technology so far? Talk to your partner about your ideas.

Perhaps you could use the World Wide Web to find out more about one of the people you have learnt about?

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Success Criteria

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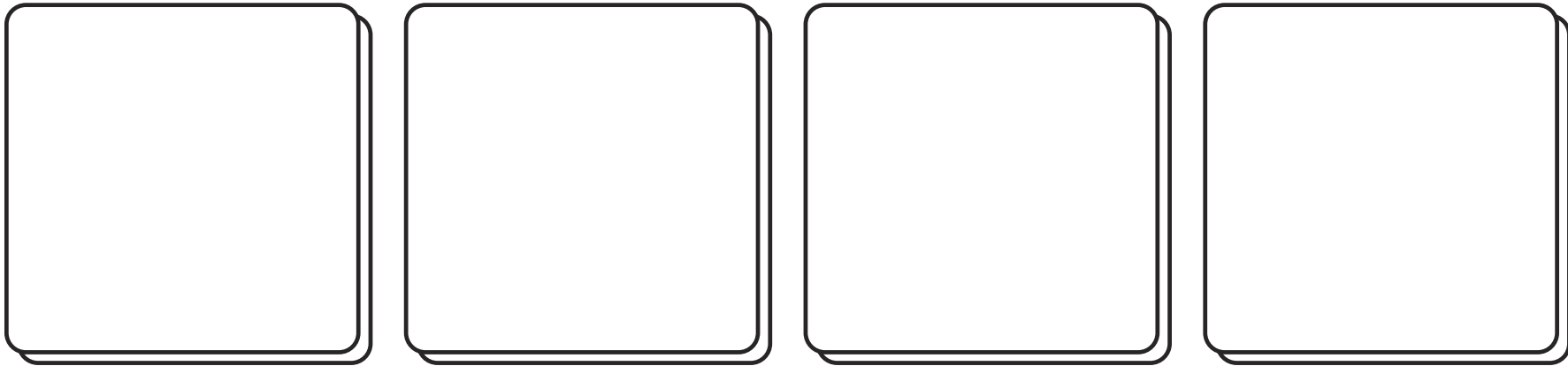


Computer Timeline

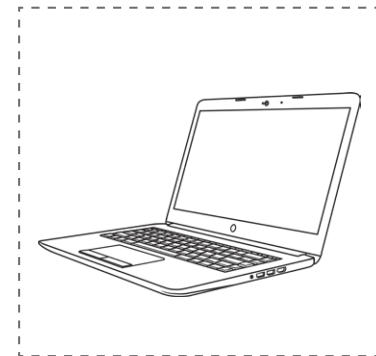
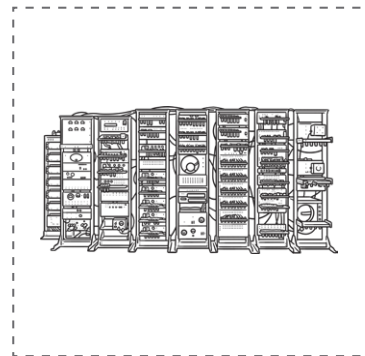
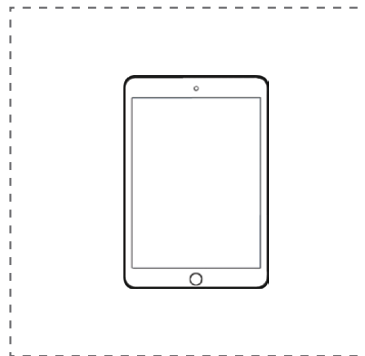
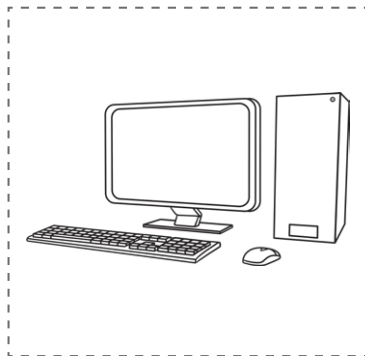
To understand how information technology has changed and developed over time.



Look at the pictures of the computers. Cut them out and stick them onto the timeline in chronological order.



earliest ● ▶ latest

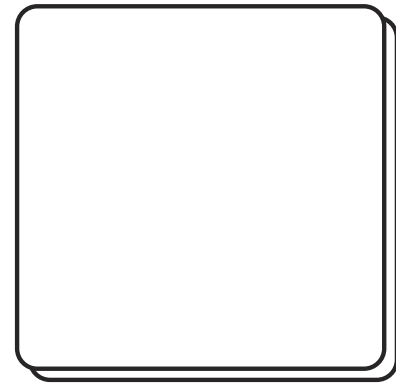
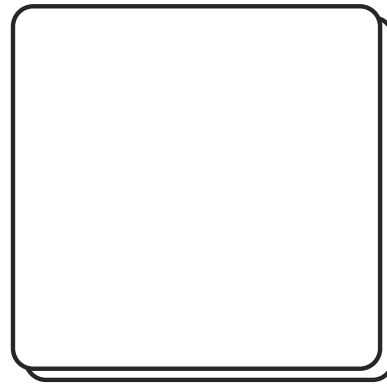
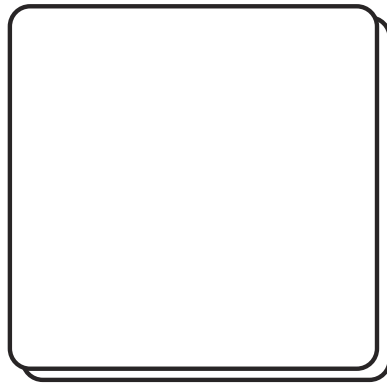
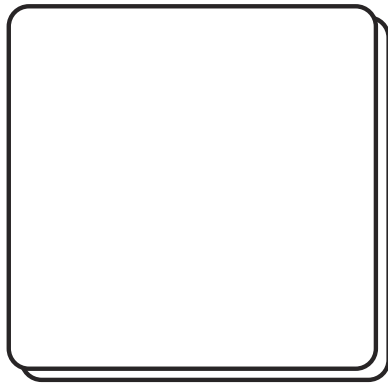


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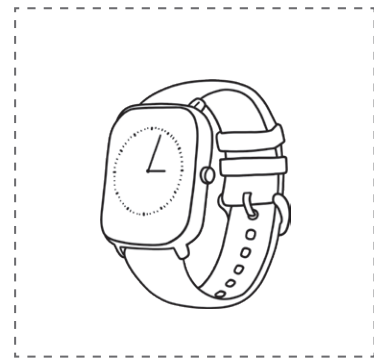
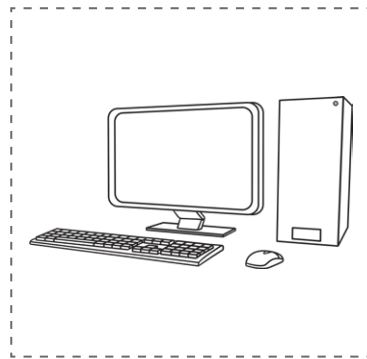
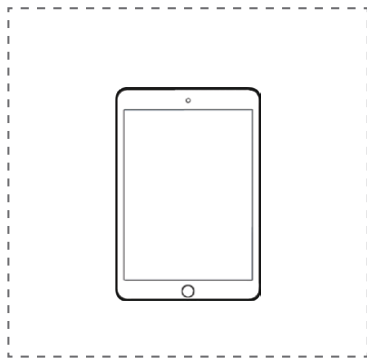
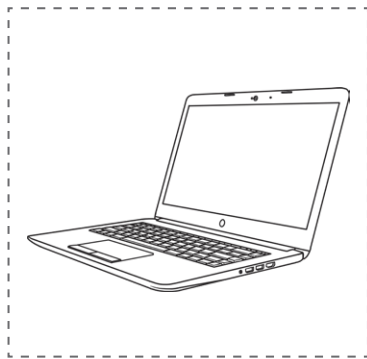


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Describe one way in which computers have changed over time. _____

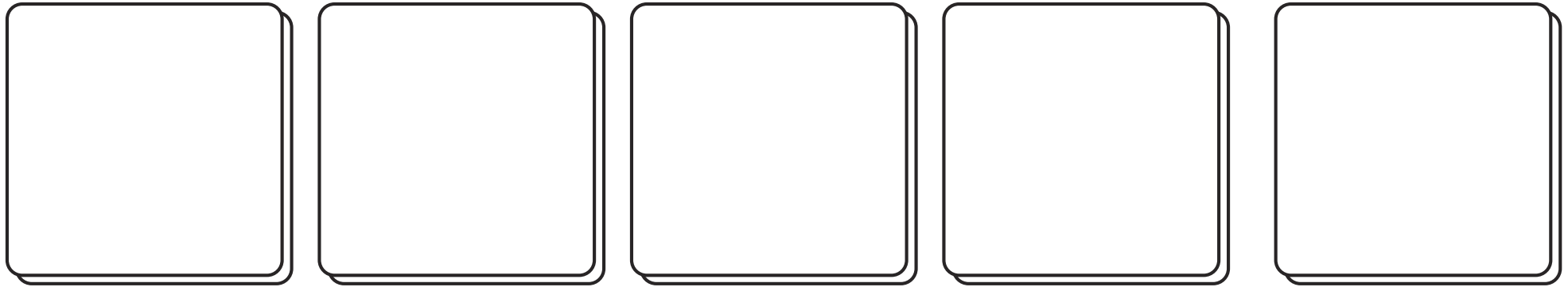


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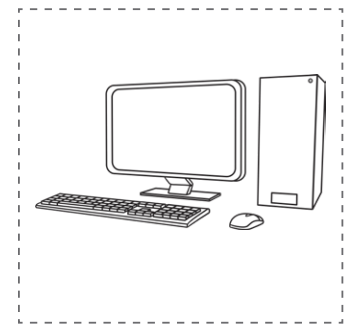
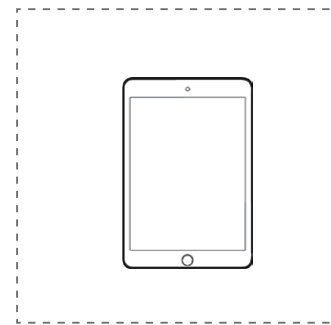
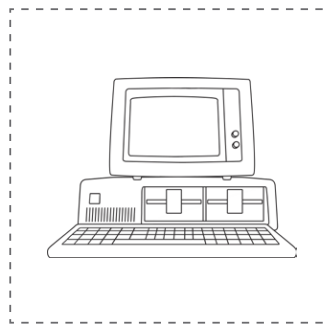
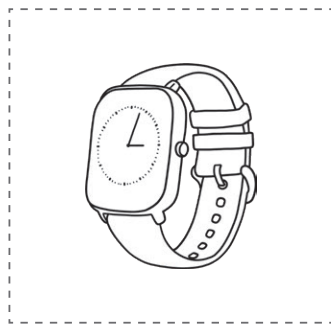
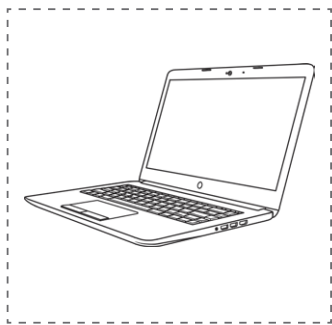


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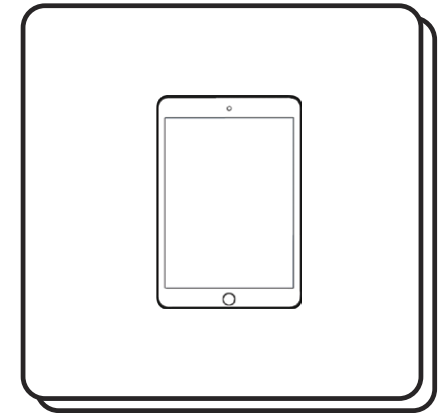
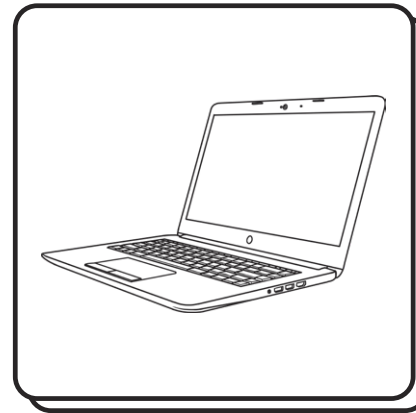
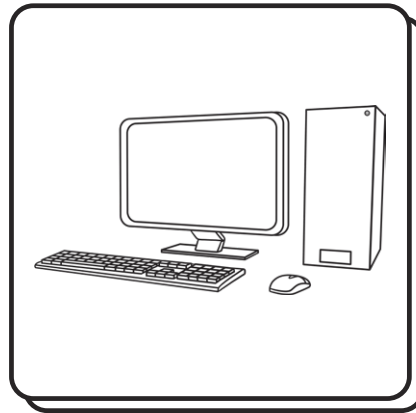
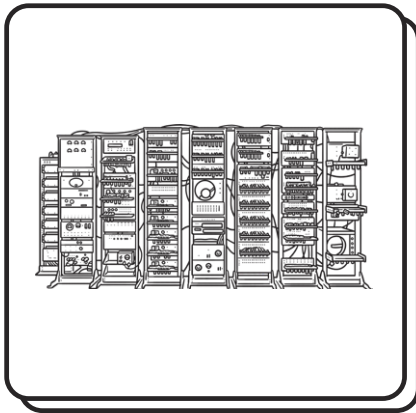


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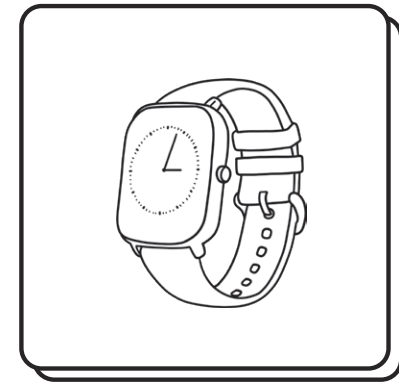
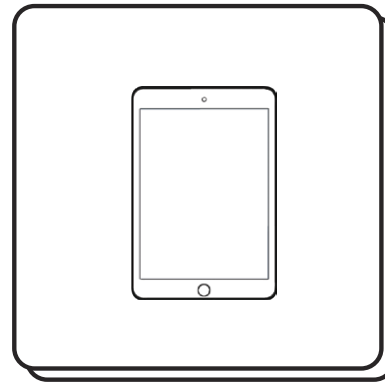
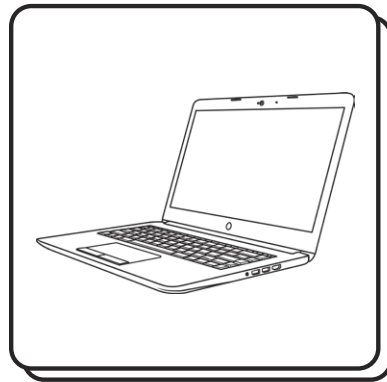
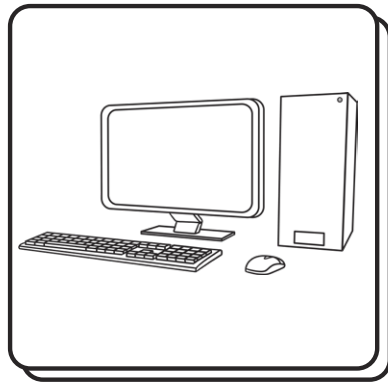
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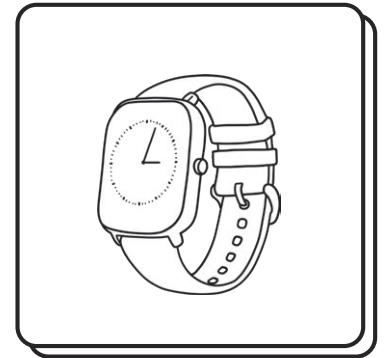
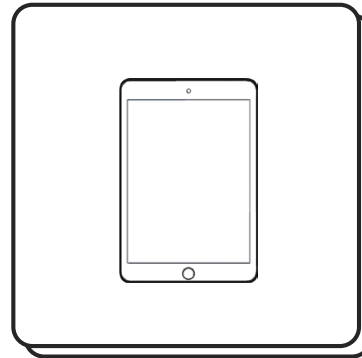
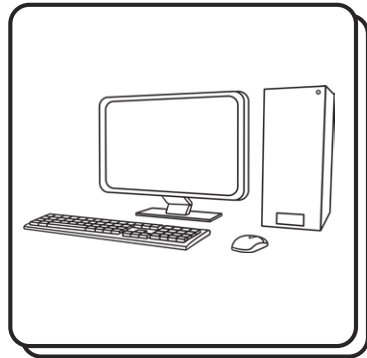
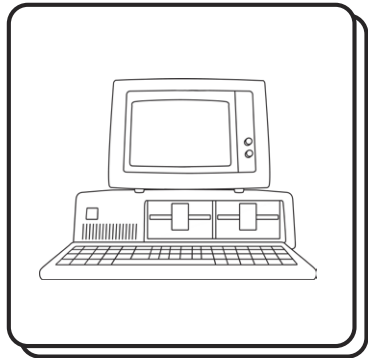
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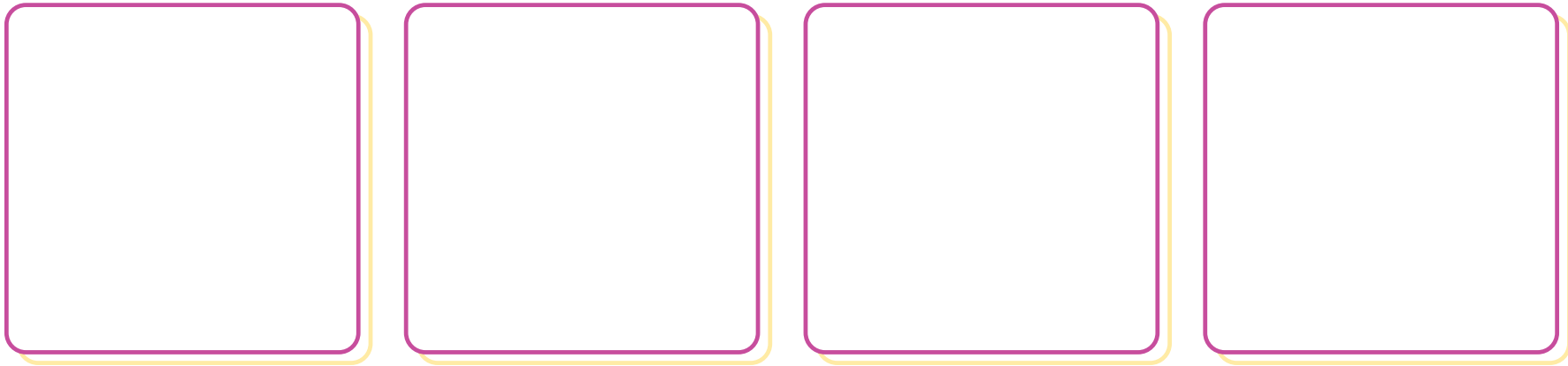
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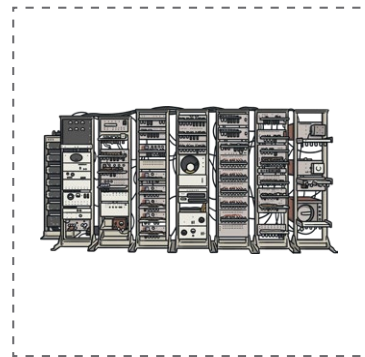
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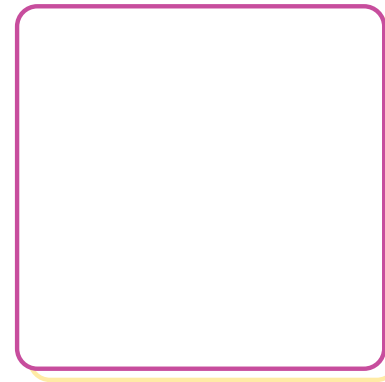


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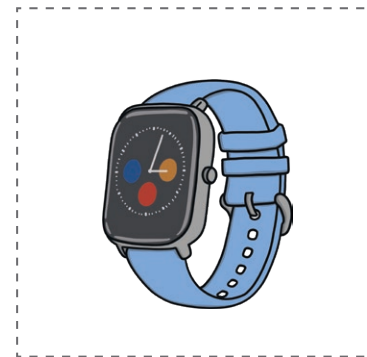


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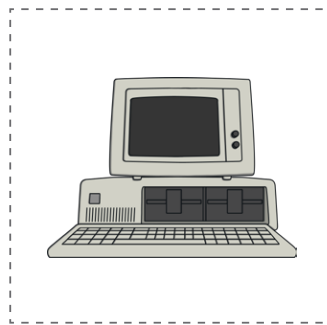


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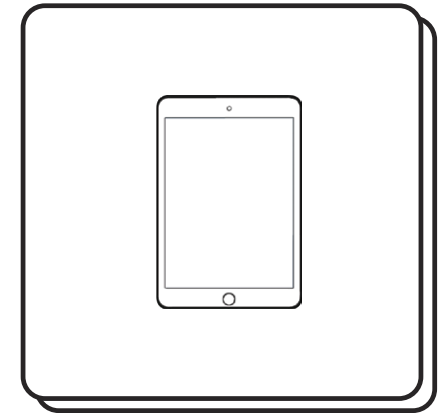
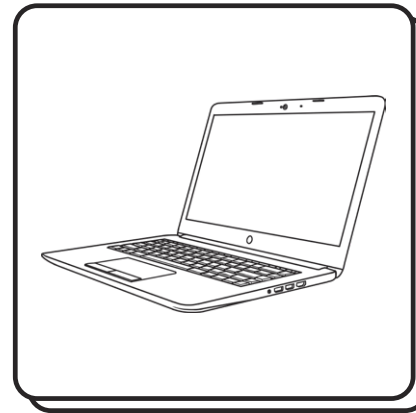
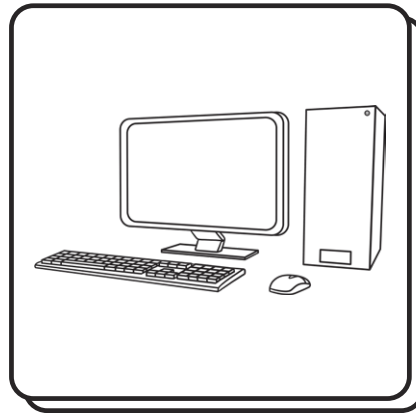
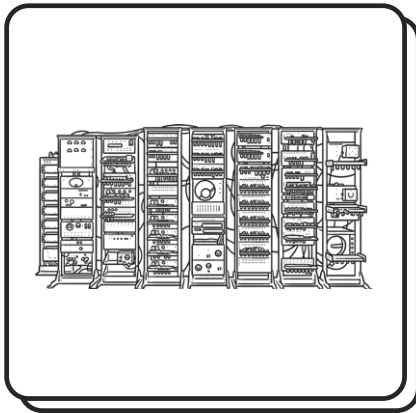


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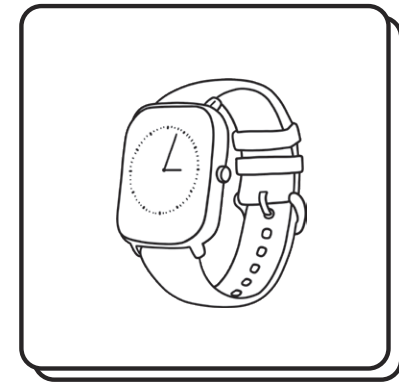
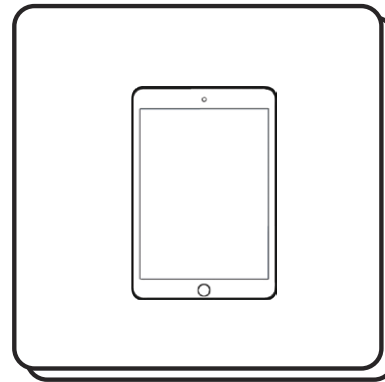
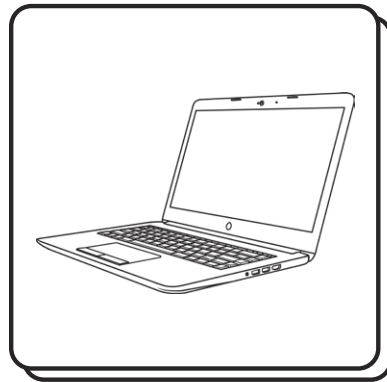
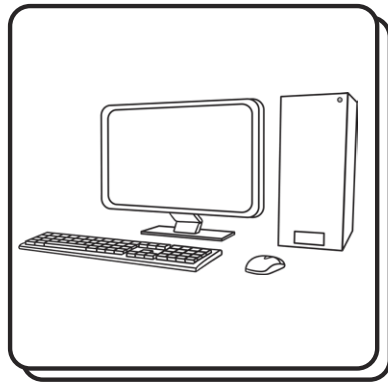
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Computer Timeline - Answers

To understand how information technology has changed and developed over time.



Look at the pictures of the computers. Cut them out and stick them onto the timeline in chronological order.



earliest ● ▶ latest

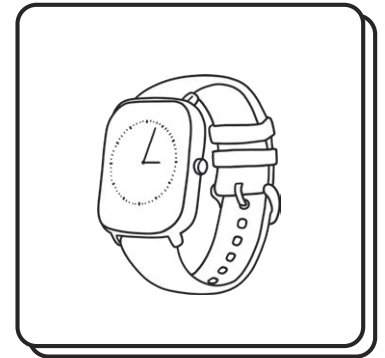
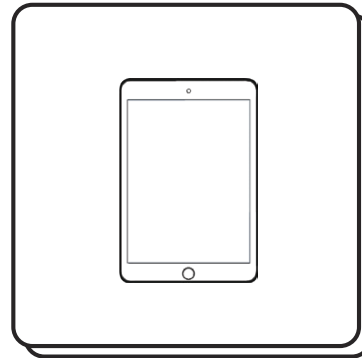
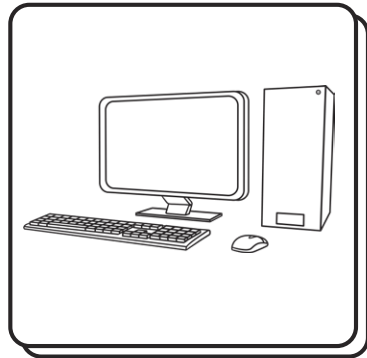
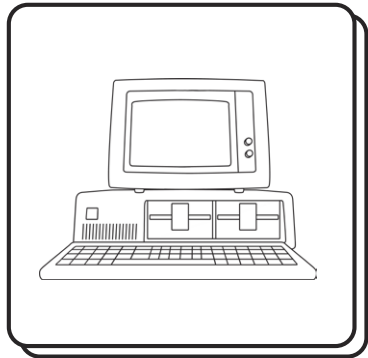
Describe one way in which computers have changed over time. _____

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To understand how information technology has changed and developed over time.		
I can describe how computers have changed over time.		
I can order digital devices on a timeline.		
I know about some of the people who have helped to change information technology.		

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