Technology Around Us: What's the Use of Information Technology?

National Curriculum Recognise common uses of information technology beyond school. **Aim** To recognise that information technology helps us in many different ways.	**Lesson Duration** It is estimated that this lesson will take approximately 60 minutes. **60 mins**

Success Criteria I can give examples of how information technology helps us. I know that digital devices can perform more than one task. I understand that digital devices can be connected and that we need to be careful about the information we share.	**Key Vocabulary** Digital device, information technology, network, wireless technology.

Resources Lesson Pack	**Preparation** **Knowledge Organiser** – one per child (This contains all the key knowledge for the unit and will be used during every lesson.) **How Do Digital Devices Help Us? Activity Sheet** - one set per group Differentiated **Before and After Computers Activity Sheets** – one per child as required.

Prior Learning: In Lesson 3, children learnt about the information technology used in different jobs. They developed an understanding that information technology helps to make people's lives easier.

Learning Sequence

	Remember It: Use the examples of information technology shown on the **Lesson Presentation** to encourage children to think about how IT is used in different jobs. Take feedback from children and ensure that children realise that there is more than one correct answer for each device.	
	How Do Digital Devices Help Us?: Introduce children to the term 'digital device' and ensure that children understand that this refers to any physical electronic item that sends, receives, stores or processes information, including computers, tablets, smartphones and smartwatches. Ask children to think about all the different things that a digital device can be used for. Provide each group of children with a copy of the **How Do Digital Devices Help Us? Activity Sheet**. They can use this to record the results of their discussions before feeding back to the whole class. Children may suggest things, such as writing emails, typing letters, searching for information, listening to music, watching TV and videos, ordering shopping, toys or clothes, sharing pictures, talking to other people, etc. Use the corresponding slides of the **Lesson Presentation** to show some examples of the way in which computers help us. Ask children how many of these they talked about in their group and what other ones they discovered. Present the scenario of digital devices disappearing from our world. Encourage children to think about the effect this would have on their lives. Pose the question: **What things might you find tricky to do without digital devices?**	
	Before and After Computers: Use the corresponding slides of the **Lesson Presentation** to introduce the differentiated **Before and After Computers Activity Sheets**. In this task, children are challenged to compare how some everyday tasks were performed before and after the invention of personal computers. Children should reflect on whether computers make these tasks easier.	

★	★★	★★★
Children complete the three empty boxes in the table to compare how tasks could be completed before and after the invention of personal computers.	Children complete the six empty boxes in the table to compare how tasks could be completed before and after the invention of personal computers.	Children complete the eight empty boxes in the table to compare how tasks could be completed before and after the invention of personal computers.

	What Can Digital Devices Do?: Use the corresponding slides of the **Lesson Presentation** to introduce the idea that some digital devices can perform many different functions. Look in detail at a smartwatch and a smartphone. Explain to children that in the past, watches and phones only performed one function but that with the invention of computers they are now able to do a whole range of tasks. **Can the children think of some of the different jobs they perform?**	

It's All Connected: Introduce children to the concept of digital devices being connected. Children should be familiar with the idea of devices being connected by wires but may be less familiar with wireless connectivity.

Share the three different examples of connected digital devices shown in the corresponding slides of the **Lesson Presentation** and ensure that children understand that connections like this help us to perform tasks quickly and easily. Encourage discussion about how these tasks may have been performed before computers and other digital devices.

Finally, introduce children to the concept of computers being connected to each other to form a network. Do children know that the Internet is a huge network of computers that allow us to transfer and share information? You may want to ask children to refer to the **Knowledge Organiser** and find the section about networks to help them answer this question. Talking about networks provides a good opportunity to raise the issue of online safety. Ask children: **What rules should you follow when communicating with people online?** Children should be aware that they should communicate only with people they know or who they have been given permission to contact by a trusted adult. Ensure that children know that personal information, such as their name, age, address, school and passwords, should always be kept private and not shared with other people.

Exploreit

Colourit: Use the _____ to reinforce understanding about digital devices. Children spot and colour the digital devices in the picture.

Imagineit: Set children the challenge of writing a story about the day the computers disappeared. What difficult or funny things happened because there were no computers?

Assessment Notes:

Computing

Technology Around Us

What's the Use of Information Technology?
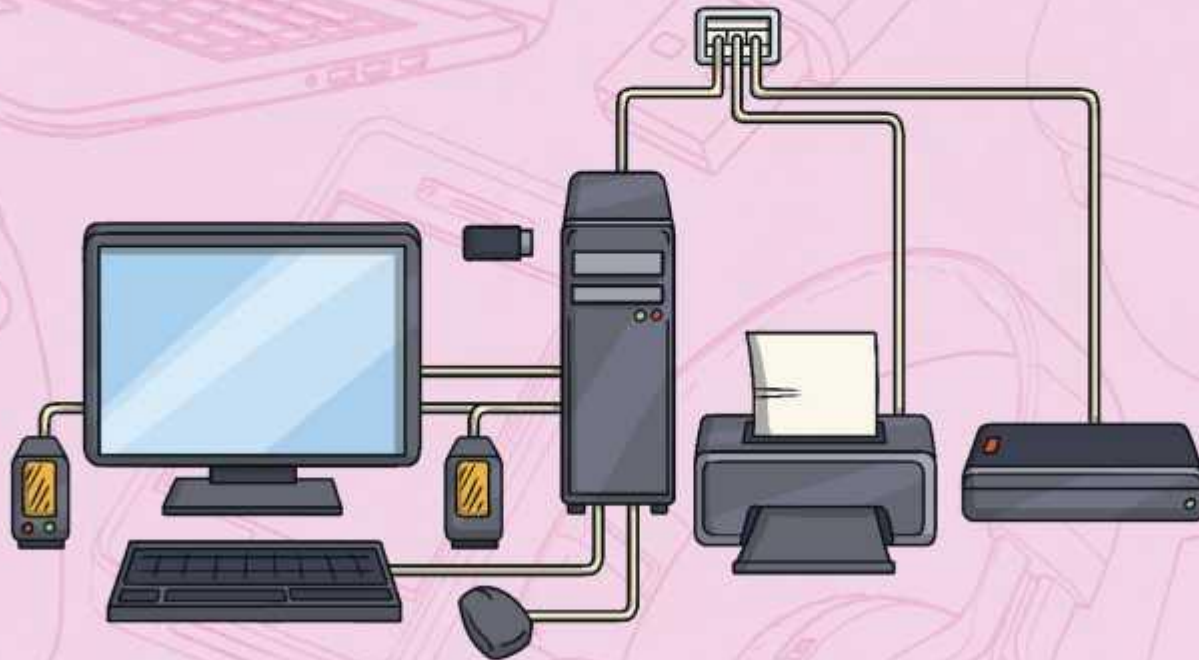
Meet Quizby!

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 recognise that information technology helps us in many different ways.

Success Criteria

- I can give examples of how information technology helps us.

- I know that digital devices can perform more than one task.

- I understand that digital devices can be connected and that we need to be careful about the information we share.

Remember It

Information technology:

- creates, stores or exchanges information;
- is a computer or a device that needs a computer to work.

Look at the information technology devices below.
Who do you think might use these in their job?
Talk to your partner and share your ideas.

3D printer

walkie-talkie

music deck

How Do Digital Devices Help Us?

A computer, laptop and a tablet are all examples of information technology. They are sometimes called digital devices. Digital devices transfer, process or store information.

Many digital devices can perform more than one task.

Work with your group. Think about all the different things that you, your friends or your family use a digital device for.

Write down as many as you can.

How Do Digital Devices Help Us?

find information

write emails

play games

draw pictures

watch videos

buy things online

type letters

Did you think of any of these ideas?
What other things can a digital device help us do?

How Do Digital Devices Help Us?

What things might you find tricky to do without digital devices?

Before and After Computers

As computers have become smaller and more popular, many people now have their own personal computer. A personal computer could be a desktop computer, a laptop, a tablet or even a smartphone.

Use the **Before and After Computers Activity Sheet** to compare how some tasks were done before people had personal computers and how these tasks are done now that we have personal computers.

What Can Digital Devices Do?

Look at all these digital devices. They all help us in some way. Do you know what they all do?
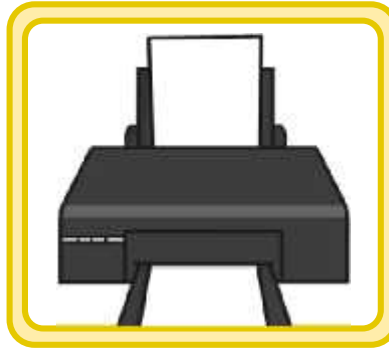
Two of these digital devices are very clever indeed.
They can carry out lots of different jobs. Can you spot them?

What Can Digital Devices Do?

A smartphone is a digital device. In the past, phones were only used to make phone calls. What can a smartphone be used for today?

recording videos

storing photographs

telling the time

paying in shops

showing maps

Did you think of any other uses for a smartphone?

What Can Digital Devices Do?

A smartwatch is a digital device. In the past, watches were only used to tell the time. What can a smartwatch be used for today?

sending text messages

counting steps

playing music

making phone calls

Did you think of any other uses for a smartwatch?

It's All Connected

Digital devices are powerful because they can be connected to one another.

A computer can be connected to other computers. A computer can also be connected to other devices, such as a camera or a printer.
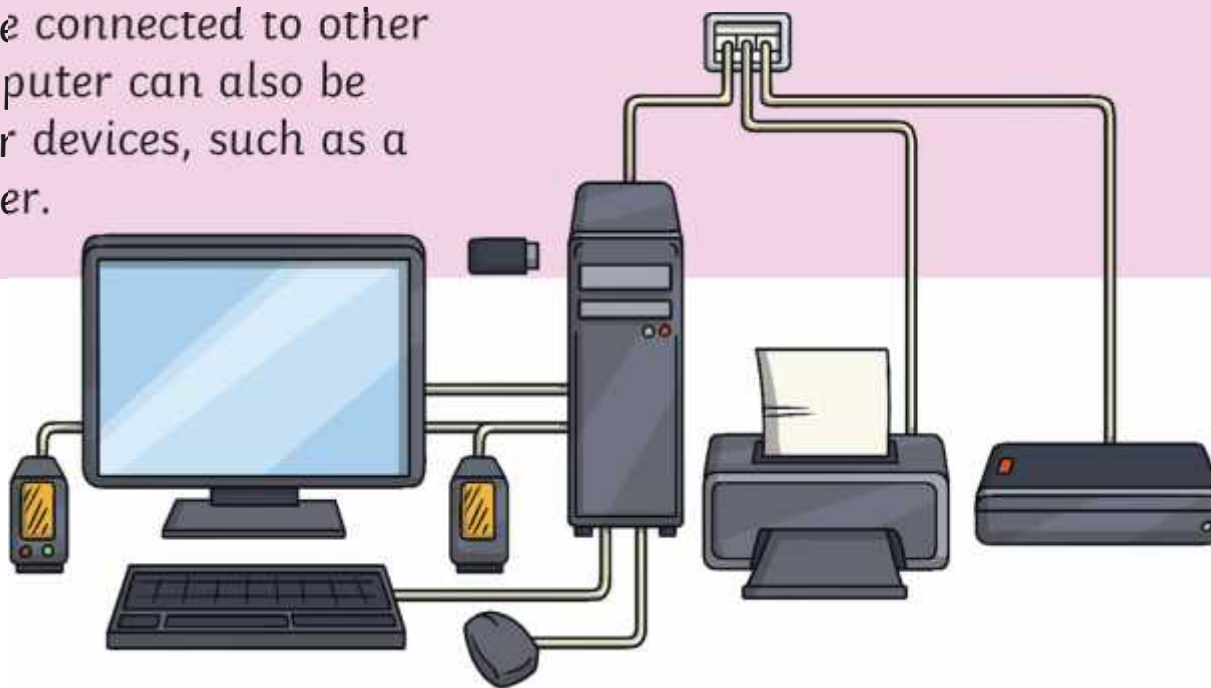
When computers and devices are connected they can pass information to one another. This makes communication quicker and easier.

It's All Connected

Some computers and devices are connected with wires.

Some computers and devices are connected without wires. They use wireless technology.

It's All Connected
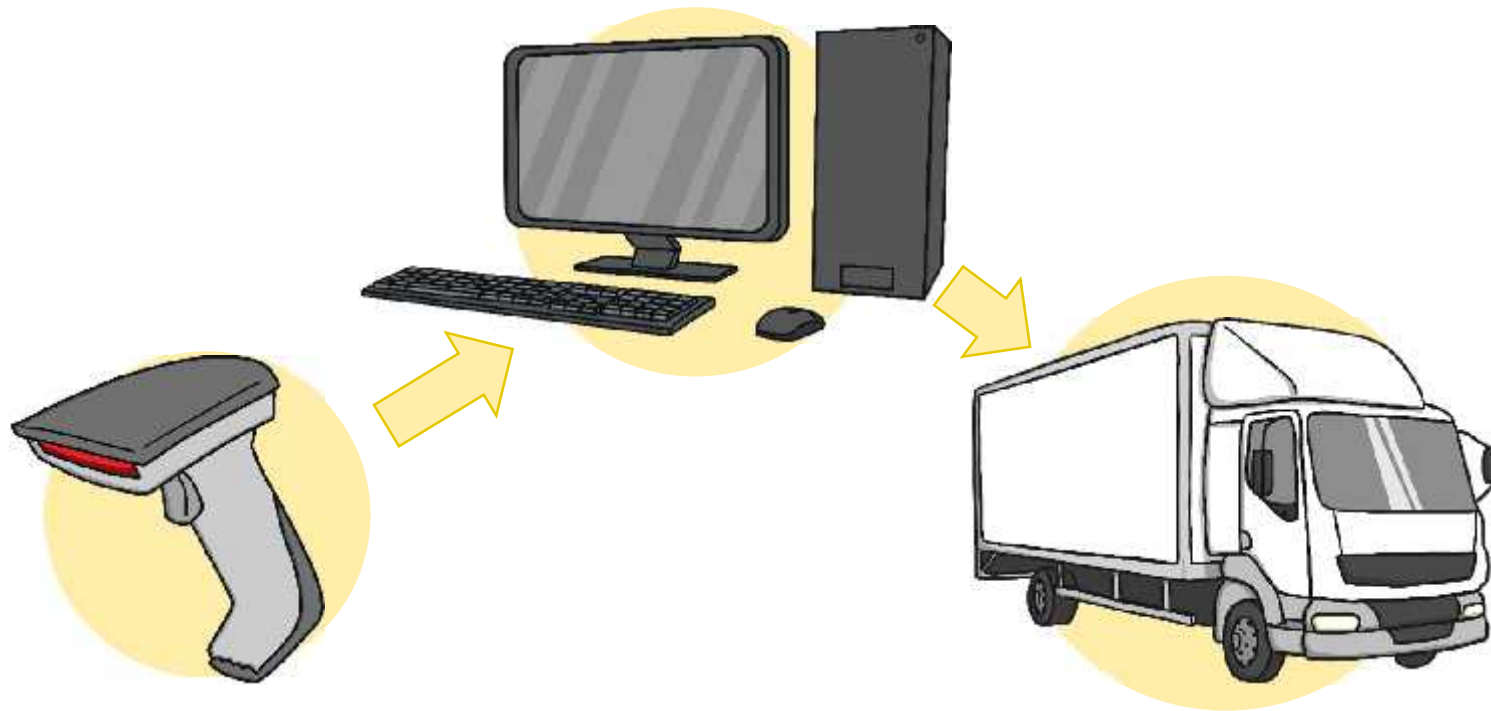
Shops use information technology to order new stock quickly and easily. A bar code scanner is used to scan each item. The information is sent to a computer. The computer sends a message to the warehouse to deliver more stock.

It's All Connected
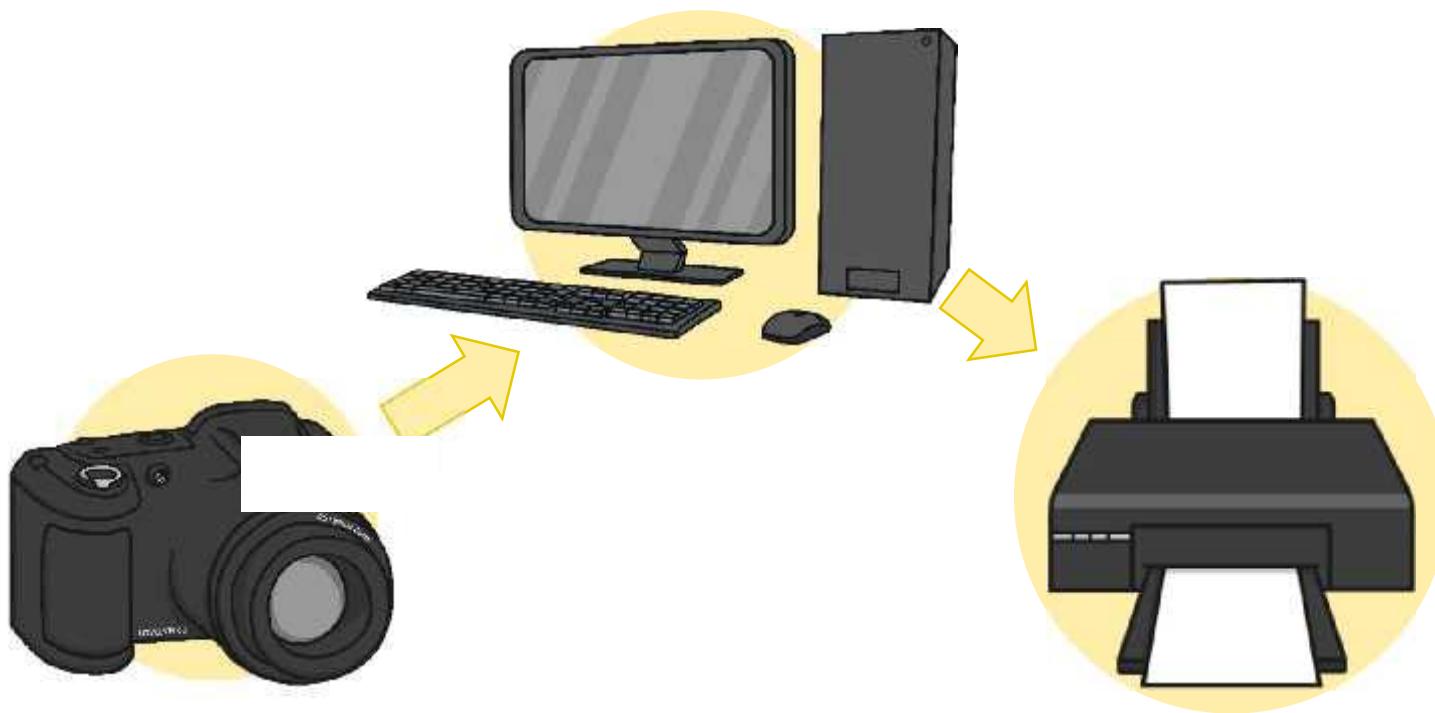
We can create photographs quickly and easily using a digital camera. The camera can send the photograph to a computer as a digital image. The computer sends the information to the printer. The printer prints the photograph.

It's All Connected

A network allows us to communicate easily with other people. Jemma and Sara write an email on their computer. The email travels digitally across the Internet. Seconds later Myra reads the email on her tablet.

It's All Connected

When a number of computers are connected together it is called a network.

Think About:

What is the biggest computer network in the world?

The Internet is a huge network of computers. It lets us share information. We can use the Internet to search for facts, to learn new things and to communicate with people on the other side of the world!

X What rules should you follow when communicating with people online?

Aim

- To recognise that information technology helps us in many different ways.

Success Criteria

- I can give examples of how information technology helps us.

- I know that digital devices can perform more than one task.

- I understand that digital devices can be connected and that we need to be careful about the information we share.

Before and After Computers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Writing a letter to a friend	Write the letter with a pen and send it through the post.	
Doing the food shopping		Use an online shopping website to order the food and have it delivered to your house.
Finding facts for your homework	Look up facts in books.	

Talk to a friend:
Do you think these tasks are easier to do with a personal computer or without one?

Before and After Computers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away		
Doing the food shopping		
Finding facts for your homework		

Do you think these tasks are easier to do with a computer or without one?

_____

_____

Before and After Computers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away		
Doing the food shopping		
Finding facts for your homework		
Creating a picture of someone		

Do you think these tasks are easier to do with a computer or without one? Explain your answer.

_____

_____

_____

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Writing a letter to a friend	Write the letter with a pen and send it through the post.	**Children's own responses, such as: Type a message and send it via email.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	Use an online shopping website to order the food and have it delivered to your house.
Finding facts for your homework	Look up facts in books.	**Children's own responses, such as: Look up information on the Internet.**

Talk to a friend:
Do you think these tasks are easier to do with a personal computer or without one?

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Writing a letter to a friend	**Children's own responses, such as: Write the letter with a pen and send it through the post.**	**Children's own responses, such as: Type a message and send it via email. Join a video meet.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	**Children's own responses, such as: Use an online shopping website to order the food and have it delivered.**
Finding facts for your homework	**Children's own responses, such as: Visit the library and look up facts in books.**	**Children's own responses, such as: Look up information on the Internet.**

Do you think these tasks are easier to do with a personal computer or without one?

Children's own responses, such as: I think it is easier to do these things with a computer than without one.

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away	**Children's own responses, such as: Write the letter with a pen and send it through the post.**	**Children's own responses, such as: Type a message and send it via email. Join a video meet.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	**Children's own responses, such as: Use an online shopping website to order the food and have it delivered.**
Finding facts for your homework	**Children's own responses, such as: Visit the library and look up facts in books.**	**Children's own responses, such as: Look up information on the Internet.**
Creating a picture of someone	**Children's own responses, such as: Paint a portrait.**	**Children's own responses, such as: Take a digital photograph and print it.**

Do you think these tasks are easier to do with a computer or without one? Explain your answer. **Children's own responses, such as: The tasks are easier to do with a computer because you can do them all from your own house. The tasks are easier with a computer because they can be done more quickly.**

Before and After Computers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Writing a letter to a friend	Write the letter with a pen and send it through the post.	
Doing the food shopping		Use an online shopping website to order the food and have it delivered to your house.
Finding facts for your homework	Look up facts in books.	

Talk to a friend:
Do you think these tasks are easier to do with a personal computer or without one?

Before and After Computers

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away		
Doing the food shopping		
Finding facts for your homework		

Do you think these tasks are easier to do with a computer or without one?

_____

_____

Before and After Computers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away		
Doing the food shopping		
Finding facts for your homework		
Creating a picture of someone		

Do you think these tasks are easier to do with a computer or without one? Explain your answer.

_____

_____

_____

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.
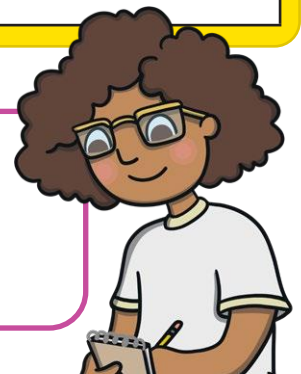
Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	**After the Invention of Personal Computers**
Writing a letter to a friend	Write the letter with a pen and send it through the post.	**Children's own responses, such as: Type a message and send it via email.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	Use an online shopping website to order the food and have it delivered to your house.
Finding facts for your homework	Look up facts in books.	**Children's own responses, such as: Look up information on the Internet.**

Talk to a friend:

Do you think these tasks are easier to do with a personal computer or without one?

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Writing a letter to a friend	**Children's own responses, such as: Write the letter with a pen and send it through the post.**	**Children's own responses, such as: Type a message and send it via email. Join a video meet.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	**Children's own responses, such as: Use an online shopping website to order the food and have it delivered.**
Finding facts for your homework	**Children's own responses, such as: Visit the library and look up facts in books.**	**Children's own responses, such as: Look up information on the Internet.**

Do you think these tasks are easier to do with a personal computer or without one?

Children's own responses, such as: I think it is easier to do these things with a computer than without one.

Before and After Computers - Answers

To recognise that information technology helps us in many different ways.

Complete the table below. Compare how these tasks could be done before and after the invention of personal computers.

	Before the Invention of Personal Computers	After the Invention of Personal Computers
Communicating with a friend who lives far away	**Children's own responses, such as: Write the letter with a pen and send it through the post.**	**Children's own responses, such as: Type a message and send it via email. Join a video meet.**
Doing the food shopping	**Children's own responses, such as: Go to the supermarket and bring the shopping home.**	**Children's own responses, such as: Use an online shopping website to order the food and have it delivered.**
Finding facts for your homework	**Children's own responses, such as: Visit the library and look up facts in books.**	**Children's own responses, such as: Look up information on the Internet.**
Creating a picture of someone	**Children's own responses, such as: Paint a portrait.**	**Children's own responses, such as: Take a digital photograph and print it.**

Do you think these tasks are easier to do with a computer or without one? Explain your answer. **Children's own responses, such as: The tasks are easier to do with a computer because you can do them all from your own house. The tasks are easier with a computer because they can be done more quickly.**

How Do Digital Devices Help Us?

To recognise that information technology helps us in many different ways.

Write down all the things that you, your friends or your family use a computer, laptop, tablet or other digital devices for.

How Do Digital Devices Help Us?

To recognise that information technology helps us in many different ways.

Write down all the things that you, your friends or your family use a computer, laptop, tablet or other digital devices for.

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		

Technology Around Us |
What's the Use of Information Technology?

To recognise that information technology helps us in many different ways.		
I can give examples of how information technology helps us.		
I know that digital devices can perform more than one task.		
I understand that digital devices can be connected and that we need to be careful about the information we share.		