

Technology Around Us

Computing | Year 2 | Planning Overview

Introduction

In this unit about Technology Around Us, children begin by learning about a range of technology in familiar settings, such as school and the home, before being introduced to technology in the wider world. They will learn the difference between technology and information technology and will begin to understand the benefits of using information technology. Children will also consider safety implications of using information technology, linking to online safety.

They will have the opportunity to learn about the history of information technology and be introduced to significant individuals involved in computing.

Finally, children will use their knowledge of technology creatively to design some technology of the future. Accompanying this unit is a helpful Knowledge Organiser. The _____ collates the subject knowledge for the unit and is used throughout this unit.

Hardware and Software

A range of technology and information technology should be available within school for children to investigate.

Health and Safety

Children should be encouraged to have good posture and sit up to the computer. Children should not spend extended periods of time looking at the screen. Ensure safe and responsible use of portable digital devices, discouraging children moving around the classroom with technology. Make sure that food and drink are kept away from all electronic items.

Home Learning

In this task, children search for the technology devices and sort them into whether they are information technology or not.

In this task, children think about how apps help us. They design four new useful apps for a Smart Watch.

Assessment Statements

By the end of this unit...

Working Towards the Expected Level:

- Children begin to recognise technology outside of the classroom.
- Children can describe what technology they use in their lives.
- Children recognise that going online can be dangerous and that they should seek the help of a trusted adult.
- Children know that technology changes over time.
- Children can name some people who have helped shape information technology today.
- With support, children can think of ways in which information technology may change in the future.

Working At the Expected Level:

- Children can identify examples of technology used in different settings.
- Children can describe how they use technology in their lives and explain the benefits of doing so.
- Children can identify risks of going online and can begin to think of some ways to keep safe.
- Children can identify some ways in which technology has changed over time.
- Children are familiar with the work of a number of people who have been significant in shaping the world of information technology.
- Children can use prior knowledge to produce creative designs for the information technology of the future.

Working At Greater Depth:

- Children can suggest a range of technology used in different settings and roles and explain how it is used.
- Children begin to think about the benefits to society of using technology.
- Children can identify a range of risks associated with going online and suggest ways in which to keep themselves safe.
- Children can identify ways in which technology has changed over time and give reasons to explain why these changes have happened.
- Children can explain the impact of a number of significant people on the world of information technology today.
- Children can use their knowledge of information technology to produce detailed, imaginative and creative designs for future technologies.

Lesson Breakdown

1. Technology in School

Recognise common uses of information technology beyond school.

To identify technology in my school.

To confidently talk about how technology is used in my school.

Resources

Hardware and Software:

- A range of technology commonly found in the classroom

Additional Lesson Information and Possible Misconceptions

In this lesson, children will use an activity sheet to complete a treasure trail around the school, finding items of technology included on their list. Please note that an editable version of the [Technology Treasure Trail Activity Sheet](#) is available if you wish to customise the items of technology on the list to suit your school environment.

Children will be introduced to a range of technology and encouraged to explore them. You may want to talk to your children about health and safety, ensuring that they never undertake these tasks without permission and supervision. Children may need to be reminded that some technology uses electricity and that this can be dangerous.

2. Technology in the Home

Recognise common uses of information technology beyond school.

To recognise different types of technology in the home and understand why they are used.

Resources

- Scissors
- Glue

Additional Lesson Information and Possible Misconceptions

This lesson focuses on different types of technology around the home. Some children in your class may not have access to a wide range of technology in their home and this may need to be dealt with sensitively.

Scissors Disclaimer:

To ensure the safety of the children in your setting, it is your responsibility to assess whether adult supervision or other appropriate safety measures are required when using scissors.

3. A World of Information Technology

Recognise common uses of information technology beyond school.

To recognise different types of technology in the home and understand why they are used.

Resources

Additional Lesson Information and Possible Misconceptions

This lesson looks at the use of information technology in different settings and roles. Children in your class may not have experienced some of these situations. You may feel that some pre-teaching or support is required. You may want to include pictures of key technology in areas of continuous provision, add items to role-play areas or read stories about different jobs to help make children more familiar with the different jobs and work places mentioned in the lesson presentation.

4. What's the Use of Information Technology?

Resources

Recognise common uses of information technology beyond school.

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

Additional Lesson Information and Possible Misconceptions

In this lesson children are introduced in a simple way to networks. They learn that digital devices can be connected and this allows them to share information. This provides an opportunity for children to discuss online safety. You may wish to develop this part of the lesson further. Children should understand that some personal information should always be kept private. This would include information that allows them to be identified by others including, their name, address, age, birthday, school and friends. Children should also be aware that they need to keep their passwords private too.

5. The Story of Information Technology

Resources

Recognise common uses of information technology beyond school.

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

- Scissors
- Glue

Additional Lesson Information and Possible Misconceptions

In this lesson, children will discover that over time digital devices have become smaller, more mobile, cheaper to produce and easier for people to use. Digital devices are also far more powerful and multifunctional than ever before. Some children may think that because the earliest computers were so large that this would make them quicker and more powerful. You may wish to discuss this in order to overcome this misconception.

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6. Information Technology of the Future

Resources

Recognise common uses of information technology beyond school.

To begin to think about how information technology may develop in the future.

- Coloured pencils or felt-tips pens

Additional Lesson Information and Possible Misconceptions

This lesson introduces children to the concept of artificial intelligence and machine learning.

Children may tend to focus only on human-like robots as an example of artificial intelligence. Encourage them to think of other types of machines and technologies, such as assembly lines, self-driving cars, smart speakers, facial recognition and personalised advertisements when they use Internet sites.

Many children will think that computers are much quicker and smarter than humans. It is important to spend some time discussing the fact that most computers are programmed and controlled by humans. Humans possess the essential ability of being able to learn from experience and adapt their behaviour accordingly. This allows humans to carry out an enormous range of tasks, interact with their environment and think imaginatively and creatively.