

## Years 3–4

*I can identify peripherals and describe their purpose.*

Digital systems often require peripheral devices to receive input data, for example, via a mouse, a touchscreen or keyboard, and microphone. They then output data to a user as text, audio or images, for example, via a screen or monitor, data projector or speakers. In some digital systems, components like cameras, microphones and keyboards are not built-in and must be added separately. A printer can be connected via a cable or wi-fi.

Use a set of printable cards for activities to sort and classify components of digital systems; in particular, hardware and peripherals. Students can sort into those that receive input data, process and store data or output data.



Explore an input device such as Makey Makey to replace keyboard functions. Students can explore game control or playing a musical instrument. Use Scratch to incorporate key pressed functions to assign musical notes to each key.



Create cards for peripherals (printer, keyboard, mouse, webcam, microphone, USB). Distribute them randomly to students. Each student demonstrates how their peripheral integrates with a digital system, showing its use and functionality.



**Achievement standard** Students securely access and use digital systems and their peripherals for a range of purposes, including transmitting data.

**Content descriptions** Explore and describe a range of digital systems and their peripherals for a variety of purposes | Digital Technologies AC9TDI4K01  
Explore transmitting different types of data between digital systems | Digital Technologies AC9TDI4K02

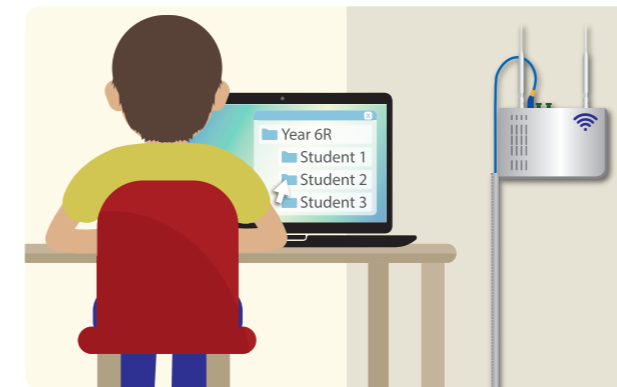
## Years 5–6

*I can describe the role of hardware and software components of digital devices and how digital systems in a network are connected to transmit data.*

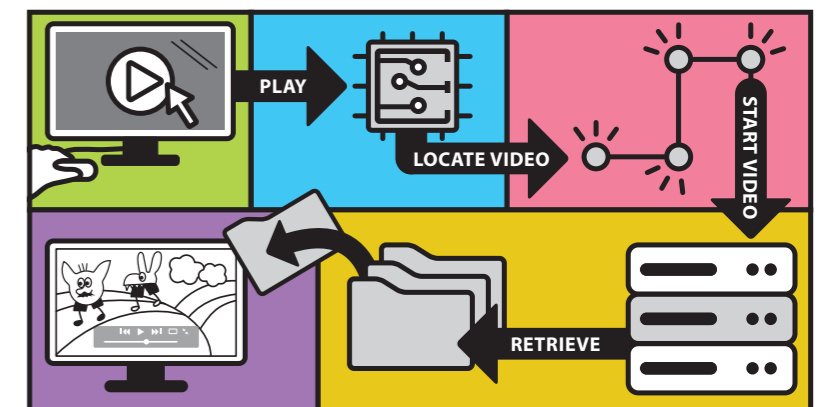
Digital systems, like computers, need both hardware (physical parts) and software (instructions) to work. They require power, user input, and an operating system that connects the software and hardware. The main parts that process and store data are the CPU and memory storage.

Many digital systems connect to other digital systems: computers via cables, tablets and laptops via wi-fi, and smartphones via mobile networks.

Explore the roles of internal components like the CPU and memory in a digital system. Match cards with the names of digital system parts (CPU, RAM) to their functions (processing data, storing information). Create a comic strip or storyboard illustrating how we access a file such as a video stored on the network.



Use relevant videos or teaching slides to explore the internet and its uses. Discuss how messages are sent between digital systems globally in under a second using packets and IP addresses.



Investigate the school network and its interconnected components used to share resources. Discuss the benefits of a network, such as file storage, sharing, and printer access. Students create a how-to guide explaining these benefits and how to interact with and use the school network.

Packet header		Packet header		Packet header	
Sender IP	1.1.1.1	Sender IP	1.1.1.1	Sender IP	1.1.1.1
Receiver IP	2.2.2.2	Receiver IP	2.2.2.2	Receiver IP	2.2.2.2
Sequence	1 of 3	Sequence	2 of 3	Sequence	3 of 3
Payload	"What"	Payload	"is"	Payload	"electricity?"

**Achievement standard** They securely access and use multiple digital systems and describe their components and how they interact to process and transmit data.

**Content descriptions** Investigate the main internal components of common digital systems and their function | Digital Technologies AC9TDI6K01  
Examine how digital systems form networks to transmit data | Digital Technologies AC9TDI6K02