Creating a digital system

Description: Students find a digital system to explore. Then they create a model of the system using recyclable materials. They use their model to role-play at home.

30–60 MIN	EASY	AGES 5–8

ACTIVITY TYPE: MODEL BUILDING

Image source: pixabay

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You will need …

- Digital system (eg computer)

- Paper

- Craft tools (eg scissors, sticky tape, glue)

- Recyclable materials

- Imagination

Image source: pixabay

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About the activity

Find digital systems in your home.

Most will have an operating system and different components, such as input, output and communication.

After discovering a digital system of interest, create a model of the chosen device that can be used during role-play situations at home.

Image source: pixabay

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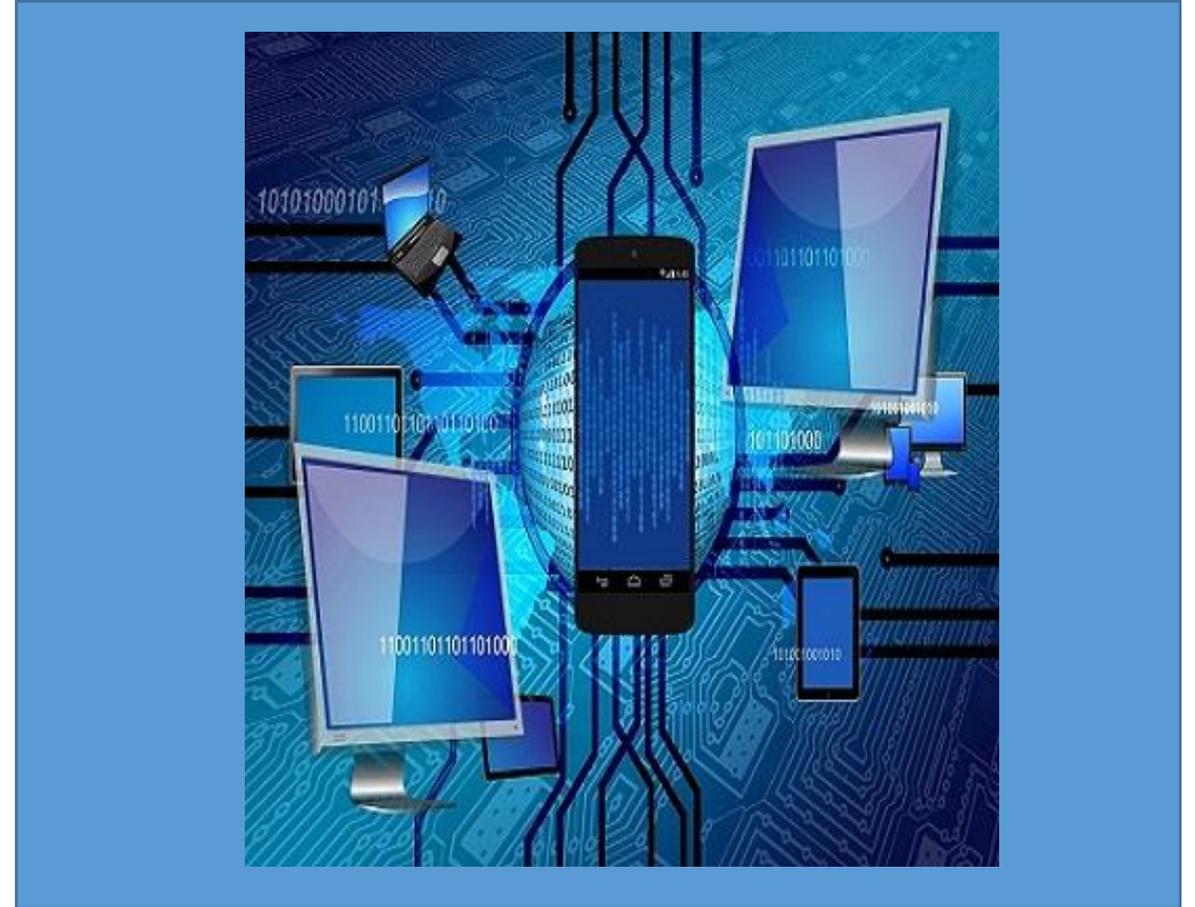
Let's get started

1

Find and examine a digital system in your home (eg, a computer).

Tip: If you don't have a digital system in your own home, there should be one at your local library.

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What's next?

2

Discuss the different components of the digital system (eg mouse, keyboard, monitor, etc) and what each of the elements does.

Tip: If you are unsure, look at the Australian Curriculum definition of a digital system.

Image source: pixabay

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What's next?

3

- Create a hand-drawn plan of the model you are going to make.

- Discuss the types of materials you could use to make each of the components.

Tip: Ask your child to label the components of the system in the plan. (They may need your guidance to do this.)

Image source: pixabay

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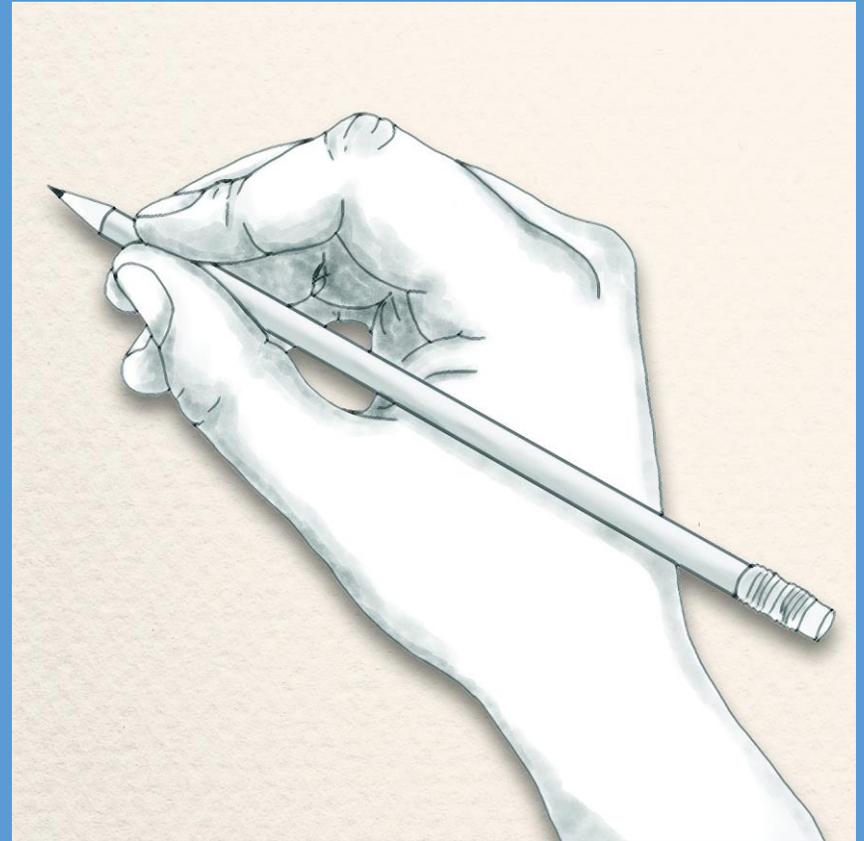
What's next?

4

Collect recyclable materials to create your digital system model.

Tip: If you are missing a part, head to a shop to see if they have any spare packaging boxes.

Image source: pixabay

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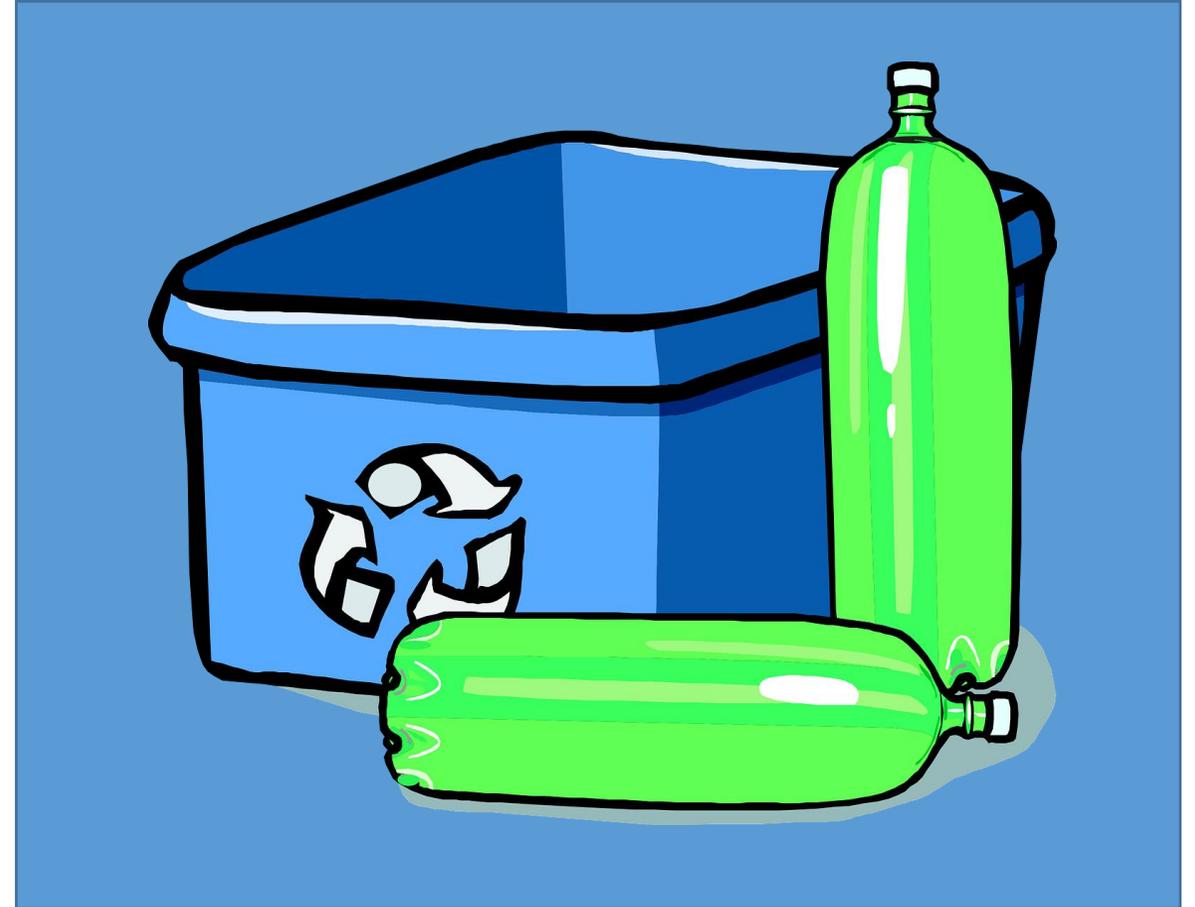
What's next?

5

Using the plan to guide you, construct your digital system model with the recyclable materials.

Tip: Have glue, sticky tape, string, pens, scissors, etc available for construction.

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Congratulations!

6

- Your digital system is now complete.

- Spend some time incorporating this model into a role-play situation.

- Try to encourage the use of language during play, eg *This keyboard provides an input into the computer.*

Image source: pixabay

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Why we are learning about this

The term *digital system* refers to elements such as hardware, software, networks and their use. There may be many different components in one system; for example, a computer has a central processing unit, a hard disk, keyboard, mouse, screen etc. A peripheral device is a digital component that can be connected to a digital system; for example, a digital camera or printer.

It is important for students to understand what a digital system is, the different components that make up the system, and how each of the elements works together.

To find out more, go to Sequencing the Curriculum on the Digital Technologies Hub.