

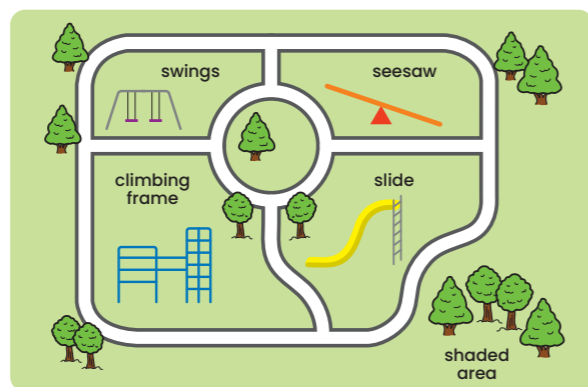
Years 3–4

I recognise different kinds of data and can select appropriate symbols for it and explain my choices.

Students will be familiar with the idea that there are different types of data such as numbers, words, symbols and pictures.

We now explore how the same data can be represented differently depending on the purpose.

Familiar objects and places can be represented using words, photographs and pictures. Some representations provide clearer communication than others.



Actions and commands can also be represented in different ways.



Rock paintings made by First Nations Australians use images to represent knowledge such as resources for food and medicinal uses.

For suggested resources



<https://bit.ly/DataRepYears3and4>

Years 5–6

I can explain how data like text and images can be represented by numbers.

All data can be represented as whole numbers in digital systems.

Whole numbers can be used to represent the alphabet. Make a coded message using numbers to represent position in the alphabet: a = 1, b = 2, c = 3 and so on.

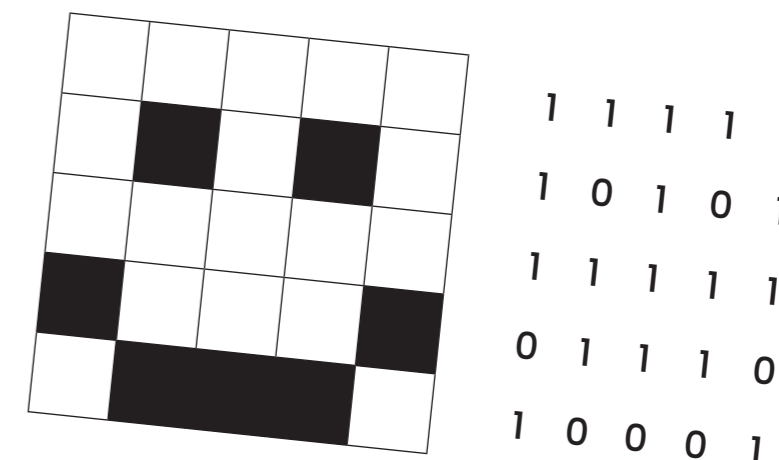
H	a	v	e	a	n	i	c	e	d	a	y
8	1	22	5	1	14	9	3	5	4	1	25

For suggested resources



<https://bit.ly/DataRepYears5and6>

Students are introduced to data in binary (ones and zeros, or on or off states). For example, create an image on a grid using one of two states in each square: coloured or blank. Encode and decode data.



Binary is the simplest possible digit form: 0 or 1. Each digit can be thought of as a switch turned off or on.



Achievement standard Students process data and show how digital systems represent data.

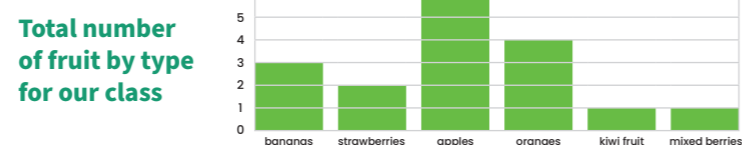
Content descriptions Explain how digital systems represent all data using numbers | Digital Technologies AC9TDI6K03
Explore how data can be represented by off and on states (zeros and ones in binary) | Digital Technologies AC9TDI6K04

Achievement standard Students process and represent data for different purposes.

Content descriptions Recognise different types of data and explore how the same data can be represented differently depending on the purpose | Digital Technologies AC9TDI4K03

Related content

Use shapes or images to represent an object when organising that data.



Mathematics Acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets | Mathematics AC9M3ST01

Related content

Explore the construction and role of switches.



Science Investigate the transfer and transformation of energy in electrical circuits, including the role of circuit components, insulators and conductors | Science AC9S6U03