

DTiF

Digital Technologies in focus

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ASSESSMENT AND
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CLASSROOM IDEAS: YEARS F–2

Data interpretation: organise data by classifying, grouping and sorting objects



Figure 1: An example of 'data boxes' that can be used for classifying, grouping and sorting activities



Figure 2: Seed pods by thrustty CC BY-NC-ND 2.0

Source:

<https://www.flickr.com/photos/thrustty/4874194441/>



Figure 3: Loose parts/classroom resources can be sorted and grouped in many ways such as by material.

Understanding and applying the process of classifying, grouping and sorting data is an important skill in the Australian Curriculum: Digital Technologies F–2 as well as in Science and Mathematics. To sort and classify familiar objects, students use computational thinking skills to organise data in a logical way.

To practise these skills, F–2 students could:

- discuss how to organise a group of different collected items (Figures 1 and 6). How will you decide to classify the items? How might this change if you do not organise the objects by colour? What other criteria will you use?
- investigate the way work books or resources are classified, sorted and stored in your classroom or in the library. What systems do you use? Why is this helpful or useful?
- collect, sort and classify leaves, seed pods (Figure 2), gumnuts or school items (Figure 3).
- sort and classify plastic bottle tops, lids or rings. Group by size, shape, colour or type (Figure 4). Use a digital system to present the results of the classification process.
- watch videos and read or write stories about sorting, classifying and organising.
- create a list of animals found in your local area (Figure 5). Make a mind map/diagram from this list showing how these animals could be grouped or categorised based on observable differences. For example, do they live on the land, in water or in the sky? Are they covered in scales, feathers, skin, fur? ([AC SIS025](#))
- use a digital system to present the summarised data in a way that a simple question can be answered (Figure 6) ([ACTDIP003](#)).
- write and follow an algorithm that explains how to organise and sort objects. ([ACTDIP004](#))

Links to the Australian Curriculum

Table 1: Aspects of the Australian Curriculum: Digital Technologies F–2 which may be addressed depending upon the task.

<p>Digital Technologies</p> <p>Achievement standard</p>	<p>By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes. They use digital systems to represent simple patterns in data in different ways.</p> <p>Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems and share information in safe online environments.</p>		
<p>Strands</p>	<p>Digital Technologies knowledge and understanding</p> <ul style="list-style-type: none"> Representation of data <p>Digital Technologies processes and production skills</p> <ul style="list-style-type: none"> Collecting, managing and organising data 		
<p>Content descriptions</p>	<ul style="list-style-type: none"> Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002) Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003). 		
<p>Key concepts</p>	<ul style="list-style-type: none"> data collection data representation data interpretation 	<p>Key ideas</p>	<p>Thinking in Technologies</p> <ul style="list-style-type: none"> computational thinking
<p>Cross-curriculum priorities</p>		<p>General capabilities</p>	<ul style="list-style-type: none"> Literacy Numeracy Critical and Creative Thinking

Useful links

- Australian Curriculum: Digital Technologies
<https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/digital-technologies/>
- Australian Computing Academy (ACA) Unpack the curriculum – F–2 (data collection, representation and interpretation) <https://aca.edu.au/curriculum/>
- Digital Technologies Hub – data detective activity
<https://www.digitaltechnologieshub.edu.au/teachers/lesson-ideas/data-detective>



Figure 4: Plastic lids and rings



Figure 5: Australian water dragon

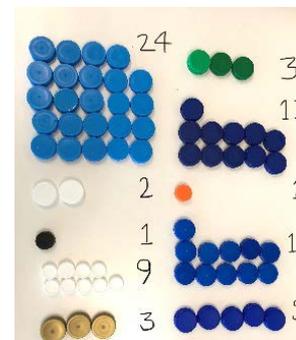


Figure 6: Exploring patterns in data using a digital image on an interactive whiteboard

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