Teachers Parents and carers

Digital Technologies @ Home
Unplugged activities for students

This activity is for: Years F-4

DT Laundry

This activity teaches...

We use conventions and shared context to understand the signs and symbols around us.
For example, we understand that a walking green person means it is safe to cross the street. But only because we all agree that is what it means! Many ideas can be communicated using symbols and conventions. Laundry symbols are an example of a convention that can be confusing even if you've been washing clothes for years!

Computers also use conventions to store different kinds of data using binary numbers. In this activity we teach students to recognise how to represent ideas (a.k.a data) using symbols in real life examples. In later years, students can transfer their understanding of symbols and abstraction in the real world to the world of digital technologies.

This activity will take up to **60 minutes**. Print pages 2 and 3 for students. If you are a teacher, read through page 6 for further information.

Getting started (read this with your child):

Did you know many of your items of clothing need to be washed in different ways?
Some items are delicate and need to be hand washed, some cannot be ironed.
How can we tell which is which? Clothing has writing and symbols on it that can tell us!

You will need...

Dirty Laundry (clean clothes are fine too)

Step by step

1. Guess what the example laundry symbols mean
2. Explore laundry symbols on your own clothing
3. Create your own laundry symbols
4. Discuss what makes a good or a bad laundry symbol

Students

DT Laundry

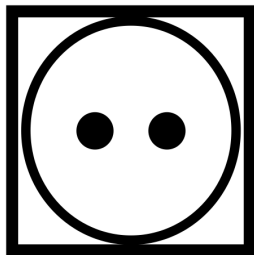Unlock the secret symbols hidden on your clothes

Guess the laundry symbol

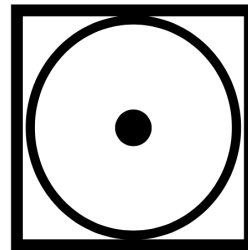Guess what instructions each symbol represents.
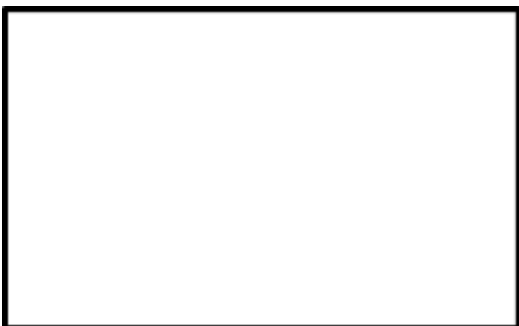Write your guesses below.

_____   _____

_____   _____

Find symbols on your clothes

Look at your dirty laundry. What symbols are there?
Copy 2 of the symbols you saw below.

_____   _____

Draw your own symbols

Draw your own symbols for the instructions below.

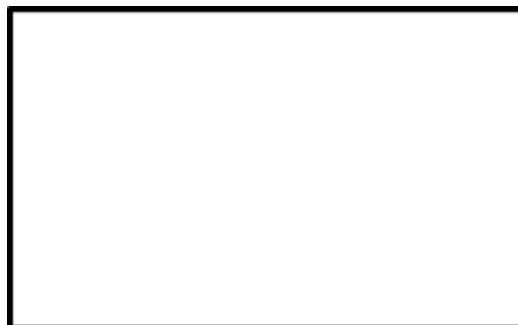Cold wash only

Do not hang in sunlight

Iron on high heat

Wash with peanut butter

Invent your own instructions

Invent a new instruction and draw a symbol for it.
Ask another person if they can guess what it means.

_____

Answer key

Teachers

Parents and carers

Guess the laundry symbol

1. Iron, steam or dry (any temperature)
2. Hand wash
3. Tumble dry with medium heat
4. Tumble dry with low heat

Have a discussion with your student.
Did you know about all of the symbols? Did you have to use the image below to understand them?
What made them easy or hard to understand? Are there any repeated patterns in the symbols?

Find symbols on your own clothes

Here is a list of symbols you might find on your clothing.

Source: https://laundrapp.com/guides/laundry-symbols/
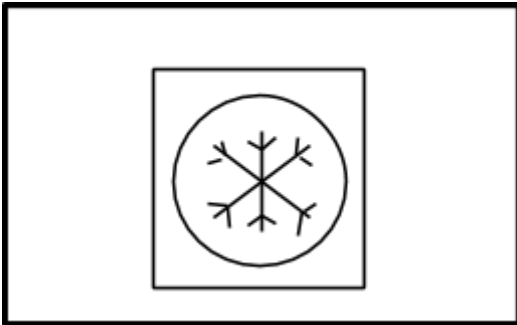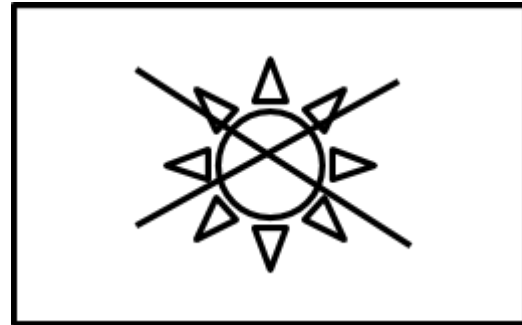
Draw your own symbols

This is a creative task, so there are many correct answers. Here are some example symbols.

What makes these symbols easy or hard to understand?

Cold wash only

Do not hang in sunlight
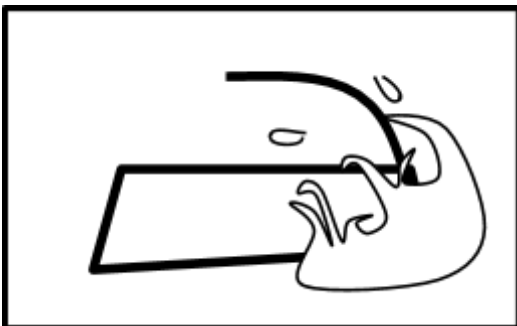
Iron on high heat

Wash with peanut butter

Invent your own instructions

This is also a creative task. For this task and the previous task you should discuss the answers to the following questions.

What would it look like on a tiny clothing tag?
Is it better than the existing symbols?
What other things could the new symbol accidentally represent?
Are the instructions sensible?

Want more?

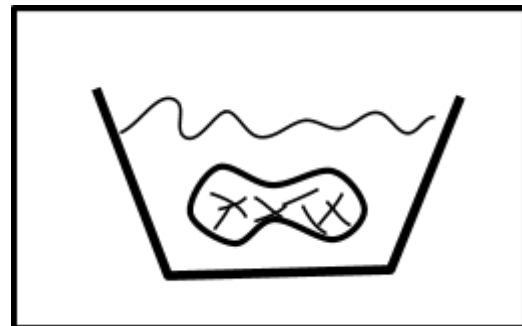Here are some further activities, online resources, assessment ideas and curriculum references.

Adapting this activity

This topic is interesting for people of all ages. For older students try engaging in a discussion about data representation appropriate for their year level.

Read more about data representation at cmp.ac/datarep

What do the number of dots in some of the laundry symbols mean? (● cold, ●● warm, ●●● hot)
Did you now this before? Would using numbers or letters make it easier or harder?

What are some other places we see symbols? (e.g. road signs, buttons in apps, bathroom signs, food packaging)

What are the benefits of using symbols instead of words and numbers? (e.g., readable in any language)
What are the benefits of using words and numbers instead of symbols? (e.g., you don't have to be a laundry expert to understand them)

How could you represent the data in these symbols with a computer? (e.g., using pictures, words, numbers, binary, objects)

Discuss how efficiently each of the above representations can be stored. (e.g, compare bitmap and vector images, compare words vs number representations)

Discuss the difference between what a symbol looks like and what the symbol represents. (e.g., an emoji can be a symbol that represents a hamburger, for example, but it looks different on different devices)

Keep learning

For students of all ages you can try the Lego Algorithmics DT Mini Challenge where students learn about representing and following instructions. cmp.ac/algorithmics

Or you can print out animal trading cards and use symbols and simple decisions to classify living things
cmp.ac/animalcards
cmp.ac/classifying

For teachers creating a portfolio of learning or considering this task for assessment

Ask students to submit the second page of their worksheet with their invented laundry symbols. You could also ask them to –with some parental help– record and submit a video explaining their symbols.

Linking it back to the Australian Curriculum:Digital Technologies

Data representation

Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002 - see cmp.ac/datarep) (Years F-2)

Recognise different types of data and explore how the same data can be represented in different ways. (ACTDIK008 - see cmp.ac/datarep) (Years 3-4)

Refer to aca.edu.au/curriculum for more curriculum information.