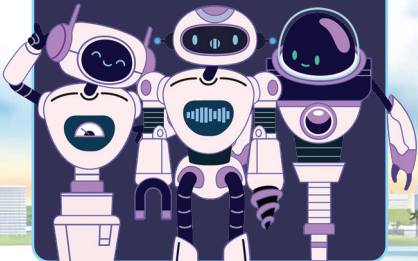


GETTING STARTED WITH

ROBOT CARDS



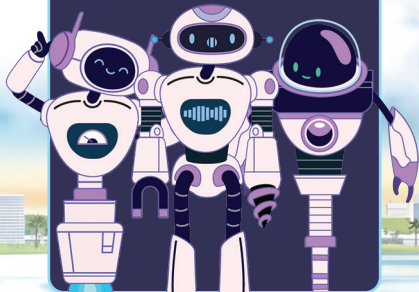
Sort, group and compare
your way through a world of
robots! Use these cards to spot
patterns and explore key ideas
in data, sorting and statistics.
dataschools.education/robots

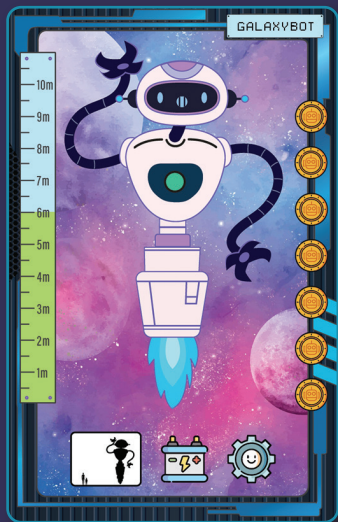


THE NATIONAL
ROBOTARIUM
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WELCOME TO THE WORLD OF ROBOTS!

In this box are 160 cards, each
with a fictional robot. These
cards will help you learn
about features of real robots,
as well as data, sorting and
statistics concepts.



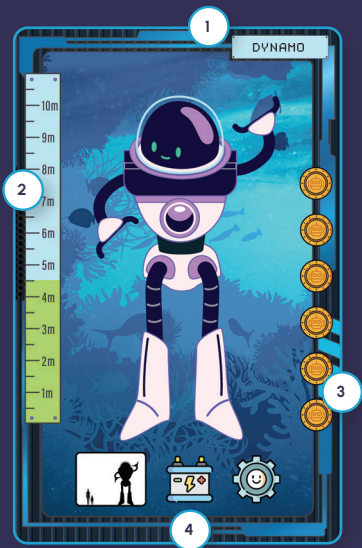


WHAT'S ON THE CARD?

Galaxybot is a space robot that is **6m tall**. This robot is very expensive, costing **7 Botcoins**. It is powered by **battery**, and its job is **production**, making things in **space**.

A pink robot with a black face and closed eyes, holding a wrench in its right hand and a screwdriver in its left. It has a blue flame-like base.

Now it's your turn!
Look at one of the cards. Can you work out what is shown about the robot?



NAME, HEIGHT, COST & POWER TYPE

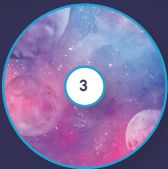
- 1 **Name:** this is unique - no two robots have the same name!
- 2 **Height:** this is shown in meters on the ruler. You can see the robot's size compared to humans.
- 3 **Cost:** how expensive the robot is in their 'botcoin' currency.
- 4 **Power Type:** the robots need a plug, or battery power, to operate.



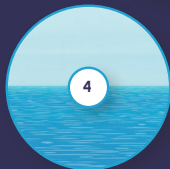
1



2



3



4



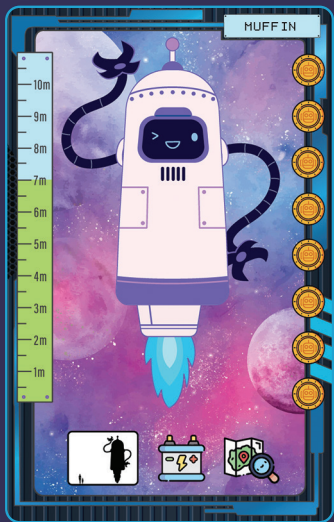
5

ENVIRONMENT /LOCATION

Each robot mainly works in one of five environments, shown on the background of the card.

The five environments are:

- 1 On land
- 2 In air
- 3 In space
- 4 On water
- 5 Underwater



FUNCTION

This is what the robot does.
Our robots work in one of five different roles.



Exploration: mapping new places



Service: robots that help people fix things



Medical: providing healthcare



Production: factory and farm robots



Search & Rescue: looking in dangerous places

ORDERING ACTIVITIES

If you're in a group, each person takes a robot card and stands in a line in order of their **robot's size**.

If you're on your own or in pairs, take at least ten robot cards and order these by size.

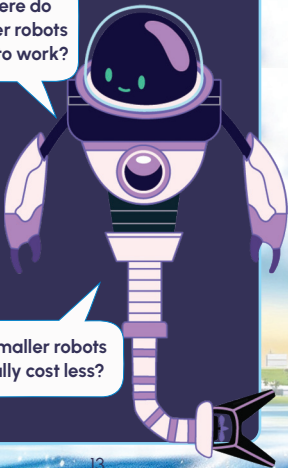
Next, try **ordering by cost**.



WHAT DO YOU NOTICE?

Where do
bigger robots
tend to work?

Do smaller robots
usually cost less?



GROUPING ACTIVITIES

Group a set of robot cards by **function**, **location** or **power**.

You can arrange them into piles or columns.

Which group is the **biggest**?

Which is the **smallest**?

Do you notice any **differences between the groups**?

Do you notice any other **patterns**?

AVERAGES ACTIVITY

With your cards in groups, can you find the **average cost** for each group?

Why do you think some types of robots tend to **cost more**?

Next, you could find the **average height** of each group.

INVESTIGATION

Do you have any **questions** or **theories** about the robots?
How could you find the answer?

Why are some robots **plugged in** and some **battery powered**?

INVESTIGATION

Is there a link between **location** and **function**?

What's the most **expensive** type of robot?

DESIGN A ROBOT

Design your own robot!

What job would your robot be good at? What tools does it need to do that job?



Sam Drysdale, P5
Lorne Primary School

REAL ROBOTS

Find out about a **real robot**.
Learn about that robot's job
and design. How tall is it and
how expensive is it?

Make a card for the robot!

NASA Valkyrie



Sort, group and compare your way through a world of robots! Use these cards to spot patterns and explore key ideas in data, sorting and statistics. 160 cards per pack. Activity ideas are included for flexible classroom use.



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