Robots, mechanical and moving toys
Self-led visits with KS2 groups

Museum of Childhood
Bethnal Green

vam.ac.uk/moc

Robot and Space dog, Yoshiya, 1950s, Japan, B.42: 1 to 3-2005
The V&A Museum of Childhood’s collections hold a host of toys that jump, spin, dance and more, from the simple home-made and historic examples to the high-tech toys children play with today.

Use this resource to help your pupils explore these toys, to make connections between their workshop and the displays in the museum.

Students should be encouraged to work in pairs or small groups, discussing their ideas and sharing discoveries. You might like to start your groups in different spaces with their adults to avoid overcrowding.

If adults have cameras or tablets, why not ask them to record student discussions and share them back at school?

Curriculum links
Design & Technology at KS2

Children should be able to:
• Participate successfully in a technological world
• Critique, evaluate and test ideas and products and the work of others
• Use research and develop design criteria to inform the design of innovative, functional, appealing products
• Generate, develop, model and communicate ideas through discussions, sketches, and diagrams
• Investigate and analyse a range of existing products
• Evaluate their ideas and products against their own design criteria and consider their views of others.

The Robots and Drawbots workshop also supports computing.

Additional activities

Before your visit
Ask your students to bring in examples of moving toys they have at home, so the class can observe how they move and what they are made from.

After your visit
Take inspiration from the home-made toys you saw in the galleries! Design and make your own moving toy from recycled materials. If your school has Raspberry Pi or Microbit equipment, can you programme the toy to carry out simple tasks?

Many of the ‘robots’ in the Museum were inspired by space exploration and science fiction. Can your pupils write their own sci-fi story about robots?

Research Patrick Rylands to find out more about his toy designs.
Find the Furby in the case. The Furby was a must-have toy for Christmas 1998, and 14 million Furbies were sold around the world in 1999.

Is the Furby a robot?
What does it do?
What can the Furby learn to do?
Exploring arts and science
Find the Moving Monkeys. Look carefully at the cogs.
What happens when you move different cogs?
What would happen if you took away one of the cogs?

Try, try and try again
Patrick Rylands is an award-winning British toy designer who works mainly in plastic. Find his Humpty Dumpty designs.
You can see the components the item is made up of as well as his original drawings and the finished toy.
In your groups discuss:
Why Rylands drew so many different views of the Humpty Dumpty toy?
What problems he may have had to overcome to create the finished toy?
What do you think the toy does?
Who might like to play with this Humpty Dumpty? who was Rylands designing for?

Space, the final frontier
Find the robot toys.
Are they real robots? What is a robot?
Where do you think the inspiration for these robots came from?
In the 1950s people thought robots would be doing all the work in the future. We are in that future now!
What jobs do robots do for us?
Do you have robots at home?

Pushes and pulls
This gallery is full of toys that move in different ways. You might have some of them at home.
Find a toy that you move by...
Pushing
Pulling
Squeezing
Turning
Twisting
Rocking
Heating
Blowing
Spinning

Robbie the Robot
Explore the model of Robbie the Robot.
Can you make him move?
How do you make him move?
When you move the cogs on Robbie's back, what happens?
Is this a real robot?