

Design a toy

DESIGN & TECHNOLOGY WEEK

Scorpio Technology encourages all students to participate in the Design and Technology week run by DATTA Australia.

"Students will have the opportunity to take part in fun and creative activities while exploring the role that design and technology plays in our lives and our futures".

(<http://www.datta.vic.edu.au/designandtechnologyweek>)



INSPIRE YOUR SCHOOL COMMUNITY

This is the first year that Design and Technology Week is being run across Australia. This opens up opportunities to show your school and local community the "cool" things that the Design and Technology subject offers. If your school has not participated before we encourage you to check out DATTA Victoria's website for inspiration.

Scorpio Technology offers a great product range that ensures that all abilities or skill levels will be stimulated.

View student models in **Kits in Action** on our website.

<https://www.scorpiotechnology.com.au/kits-in-action>

You may like to try this fun project **"Design a toy"**. Adapt to suit your student needs. Your school community may even choose to donate these toys to a charity. A wide range of components are available from Scorpio Technology to make this project a reality

Australian Aboriginal toys and games

Your students may be interested in the games and toys used and played by Aborigine children. Toys were not only used for fun but were used to teach children how to hunt and defend themselves. Traditionally rattles, dolls, spinning tops, balls and string were also used as toys.

Here are links to some Aboriginal toys.

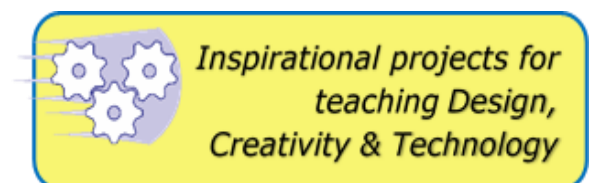
<https://australianmuseum.net.au/australian-aboriginal-toys>

<https://australianmuseum.net.au/indigenous-pandanus-toy-propellers-from-arnhem-land-1948>

<https://australianmuseum.net.au/indigenous-australian-dolls>

<https://www.creativespirits.info/aboriginalculture/sport/traditional-aboriginal-games-activities>

We hope your students enjoy designing and making their own toy.



SCORPIO TECHNOLOGY Vic Pty Ltd
17 Inverell Ave, Mt. Waverley Vic 3149
www.scorpiotechnology.com.au

September 2017

Project sheet: **DESIGN A TOY**

Everyone had their favourite childhood toy. This may have been a soft toy, a vehicle, electronic game or even a board game. You have been given a opportunity to receive the ultimate engineering task - to design a toy



Archaeologists have discovered toys around the world. These early toys were made from materials found in nature, such as rocks, sticks, and clay. Early toys include dolls, animals, jacks, whistles etc. Surprisingly, even a stone car with two axles and four wheels dating from the late Stone Age (7,500 years ago) was found in the North Kurdish town of Kiziltepe. It is exhibited at Mardin Museum, Turkey.



The invention of the wheel is thought to have been in the late Neolithic period and perhaps around 12,000 years ago.

DESIGN BRIEF: The What, the Why, the Who Constraints

You have been asked to design and make a simple toy for a small child. Use the Design Process to guide you through development. Record the step you took to develop your toy.

The brief requires the toy to be:

- Safe with no choking hazards.
- Colourful or have an interesting and appealing pattern.
- Designed so that it can be made using available technology.
- Strong enough to withstand play. You may consider durability of wood, metal, glass and textiles compared to more modern materials such as plastic.
- Made from readily obtainable material. A preference is to reuse materials or to use sustainable materials.
- Non-hazardous to the environment.



RESEARCH

New products require research. There is a wide range of sources to gain information.

- Analysing products
- Internet searches
- Visiting museums or exhibitions



SCORPIO TECHNOLOGY Vic Pty Ltd
17 Inverell Ave, Mt. Waverley Vic 3149
www.scorpiotechnology.com.au

September 2017

- Surveying shoppers
- Magazines and retailer catalogues

Research material choices. What are some of the pros and cons of each material? What material will you use? Defend your choice.

TOYING WITH IDEAS

After the Research comes the fun part. "Toying with ideas". Try out different ideas until you are satisfied with the result. Ask others for their thoughts about your toy. What can be improved etc.?

Does the toy meet the Design brief requirements?

1. Is the toy safe with no choking hazards?
2. Is the colour(s) appealing?
3. Is it easy to make?
4. Is it strong enough for a small child?
5. Is the toy made from recycled materials?
6. Does the toy move/work the way it should?
7. Will a small child want to play with it?

We hope you enjoy making this project!



REFERENCES:

- <http://www.messagetoeagle.com/worlds-oldest-toy-car-could-this-7500-year-old-discovery-be-the-earliest-evidence-of-the-wheel/>
- <http://www.toyhalloffame.org/toys/stick>
- <http://www.museumofplay.org>
- <http://technology.tki.org.nz>
- <https://australianmuseum.net.au/australian-aboriginal-toys>
- <https://australianmuseum.net.au/indigenous-pandanus-toy-propellers-from-arnhem-land-1948>
- <https://australianmuseum.net.au/indigenous-australian-dolls>
- <https://www.creativespirits.info/aboriginalculture/sport/traditional-aboriginal-games-activities>
- Toy shelf image credit - <http://laoblogger.com>