STEM: And wait there's more...

LEARN TO MAKE. MAKE TO LEARN.

The Design and Technology area of the curriculum is continually evolving. New technology replaces old. Time taken to design, manufacture and purchase the newest has decreased. We have been trained that the newest is always the best. But is it?

Newer technology such as 3D printers, laser cutters is now common in many schools. These machines allow students to combine computer coding / programming with Design and Technology to produce items that would have been difficult to make previously.

Previous generations never dreamt that one day you would be able to print up a 3D model in a desk top printer or that lasers could replace cutting equipment.

Students need to experience also the traditional "old" equipment. The satisfaction of constructing something with one's own hands should not be underestimated.

Scorpio recognises the need for learn by experience. Learning begins from the time the kit is first opened to the time it is finished. Each step requires the student to practice skills and expand their knowledge.

DESIGN BRIEF

The Design Brief is an important part of each kit. It tells us the reasons behind the project. Modifying the Design Brief may make it more relevant.

LEARNING OPPORTUNITIES

Scorpio kits provide opportunities to experience a broad range of skills. These skills that are used in the real world. The Engineering Design Process provides the necessary sequence required to work toward a final finished product.

Along the way the student will master new skills or refine old ones, experience problems and solve them and learn without realising that they are learning.

INVESTIGATION

Investigation can be by research, trial and error or by observation. Each is a valuable way to learn. Each Scorpio kit provides opportunities to experience and investigate.

DID YOU KNOW?

Most of Scorpio's kits are designed and trialled by teachers in their own classrooms. These kits allow real learning to take place. They are relevant to today's curriculum as they teach a wide range of skills including planning, brainstorming, teamwork, evaluation, recording data and so on.

We would love to see your own designs! Maybe it too will be made in schools all around Australia.

We also like to see how you or your students have adapted our kits to make them unique. We'd love to include these on our website to motivate others.

WAIT THERE'S MORE COMING SOON..

This year has been extremely busy at Scorpio. We have been working on more exciting products to add to our great range. Most are nearing completion and we hope will be available soon. Keep a look out for . . .

Our brand new PRIMARY SCHOOL catalogue. This catalogue has products that

SCORPIO TECHNOLOGY Vic Pty Ltd
1/31 Dalgety St. Oakleigh Vic 3166
www.scorpiotechnology.com.au

October 2018

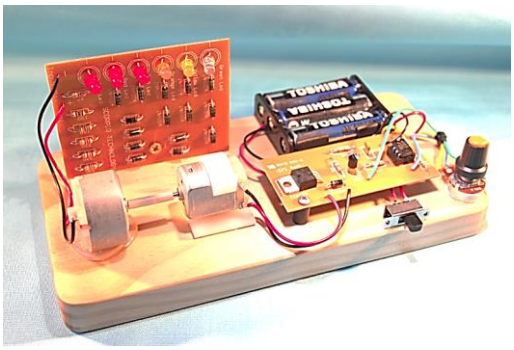
STEM: And wait there's more...

cover many areas of Science, Environment, Measurement, and Construction. Many of these products could also be used for beginner secondary.

PS. we still have some Primary clearance items on the website. Once they're gone, they're gone!

FERRIS WHEEL V2 – This STEM kit makes a realistic Ferris wheel and has an extensive teaching resource section.
*This kit is NOT the same kit as our previous Ferris Wheel FERR and FERR-NS. These kits are now renamed **WHIRLY** and **WHIRLY-NS.***
(Code: FERRIS V2)

ELECTRICITY GENERATION DEMONSTRATOR – Demonstrating electricity generation has always been difficult in the classroom setting. This kit combines a

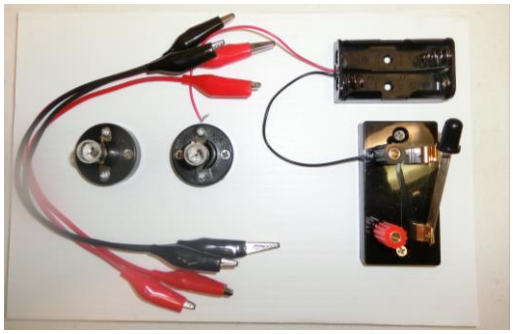


modified version of 2 earlier kits, and by constructing the *Generator Output Monitor* together with the *Motor Speed Controller*, you can demonstrate that, the faster the motor is rotated the more LEDs illuminate, showing increased power generation.
(Code: ELGENDEM)

SIMPLE CIRCUITS KITS - This kit is designed for PRIMARY school students. It introduces students to basic electronics and electricity concepts such as

- component names,
- series and parallel circuits,
- open and closed circuits,
- electric circuit symbols and diagrams.

Kit includes switch, bulb holder, bulb, battery



holder, alligator clips, tape and screws. This kit is designed to be used by groups of 2-3. Teaching unit includes simple experiments that promote critical thinking skills and deductive reasoning.

INTRODUCING ELECTRONICS – This kit is designed for SECONDARY school students. The kit includes components such as bulbs, battery holders, switches, resistors and lots more. The kit promotes experimentation, testing and recording observations.

We suggest that this kit is ideally used together with Charles Platt's book "**Easy Electronics**" (Code: BOOKEASYELEC $14.00) which provides a lot of activities to try.

SCORPIO TECHNOLOGY Vic Pty Ltd
1/31 Dalgety St. Oakleigh Vic 3166
www.scorpiotechnology.com.au