Intervention by design @ HOME

Information for students

A Technology design challenge while you are at home. Look around your house and garden. *What can you see? Are there any problems you can help to solve? Could you make something work better? Can you be inventive?*

Linking to any area of Technology, (Food, Soft materials, Hard materials, Digital Technology, etc) can YOU design a product to help your family at home?

For example: something to scare away the birds from the newly sown seeds in the veggie garden, an app to record the fitness you have done each day, a toy for your cat to stop them chewing furniture, a healthy snack using only the contents of your pantry, a container to store your LEGO safely away at the end of the day, a new board game etc.

Constraints: You can only use materials that you can find in your home.

There are three categories (but you can choose):		
Doodle a design (aimed at younger students Y1 - 3)	***Model Manufacture (aimed at Y4 - 7)***	***Iterative Inventions (aimed at Y8 - 10)***
- *Draw* an amazing idea for a new product on paper. - *Label and explain* your design - what will it do? What could you make it from? How will it work?	- *Draw and explain designs* for an innovative idea and *analyse* which you think would work the best (explain the good and bad points of your ideas). - Choose one idea and *make a working model* using only the materials you have at home. Try it out - does it work?	- Follow the *design thinking process* to develop and create a working prototype of your idea. *Research and annotate sketches* based on the information you have discovered (e.g. size of space, items, online research). - *Analyse the ideas* and *develop one or two through modelling* - card models, material testing, recipe creation, screenshots, etc - explain how the idea has changed and why. - *Make a working prototype* and *test it*, developing it and *making improvements*. - *Evaluate* the final outcome - what works well? Does it do what you intended it to? What do others in your family think? Could it be improved and how?

Intervention by design @ HOME
Information for parents and teachers

How to submit:
Students need to show evidence of their learning by taking a photo, recording a video, or making a slideshow of the process they have gone through. When they have recorded their design please submit through this form bit.ly/2020TENZTechnoChallengeEntryForm by Friday 3rd July 2020 at 5pm.

Please make sure students have filled in all the entry details fully.

Prizes:
Prizes have been gratefully supplied by the following companies: Learning Developments, OfficeMax, Phoenix Technology, Mrs Priestley ICT and TENZ Council.

Prize packs: First place and second place in each category.

Doodle a design (aimed at Y1 - 3)	*Model Manufacture* (aimed at Y4 - 7)	*Iterative Inventions* (aimed at Y8 - 10)
Learning developments: LED Flasher kit Mrs Priestley ICT: Arabella's Adventures ebook TENZ: Edmonds "My first cookbook"	Learning developments: Deluxe E-Textiles Pack Office Max: Circuit Scribe Drone builder kit TENZ: Edmonds "My first cookbook"	Learning developments: Lilypad Sewable Electronics Kit Phoenix Technology: PICnano Starter Kit TENZ: Edmonds "Beginner's Cookbook"
Learning developments: Makey Makey Classic	Learning developments: Micro:bit Starter Kit	Learning developments: Experiment Box with a Micro:bit Starter Kit

Deadline for submission: Friday 3rd July 2020 at 5pm.
Winners to be announced during Tech week 2020 - 27th July to 2nd August

Intervention by design @ HOME
Information for parents and teachers

Information for teachers:
The idea of the competition is for students to be able to have *hands-on learning* opportunities whilst at home for COVID-19 isolation. The different challenges tie in with *Outcome development and evaluation in the Technological Practice strand*.

Depending on the technological area chosen there is also scope for Technological Knowledge, Designing and developing digital outcomes (DDDO) and Computational thinking for digital technologies (CT). Should you wish to develop this challenge further into these areas, please feel free to contact Sarah Washbrooke (TENZ Council) at sarah@tenz.org.nz and we can help you to develop a deeper learning program.

This challenge also aims to develop all *key competencies:* managing self, thinking, participating and contributing, relating to others and using language, symbols and text.

Teachers there are *spot prizes* for you too (including TENZ goodies - pens, calico bags, keep cups, a free choice of resource from Mrs Priestley ICT Website, Jo Dixey's book 'Creative Thread') ***Can you get your students to take part?***

TENZ - who are we?
Technology Education New Zealand (TENZ) is a professional, collaborative network for supporting teachers in New Zealand. We promote and support all levels of technology education - from Early Childhood Education (ECE) through to tertiary, across all learning areas within technology.
Should you wish to learn more, or want to learn how to join please head to this site:
https://tenz.org.nz/