

Young Innovators Challenge Worksheet

The Challenge

1. **Design or create an idea that's "good for the world"** - for your whanau, your school/kura, your community, our country, or the whole world! Use what you've got, and give it a go! There's no right answer - we just want to see your creativity, your smarts, and your skills. Do it with a team, or Do It Yourself!
2. **Share your creation with us!** You could make a photo collage, create a video/webpage/slideshow, or put it into words. We want to see the thinking behind your ideas, hear about any teamwork, and know the challenges you faced!

Take photos and make notes along the way - a journal or project diary is a good way to keep track.

There's loads of inventions and innovation in New Zealand – have a look on YouTube or just Google it!

There are some examples from local inventors on the Young Innovators Challenge page at <http://techweek.wipltd.co.nz>

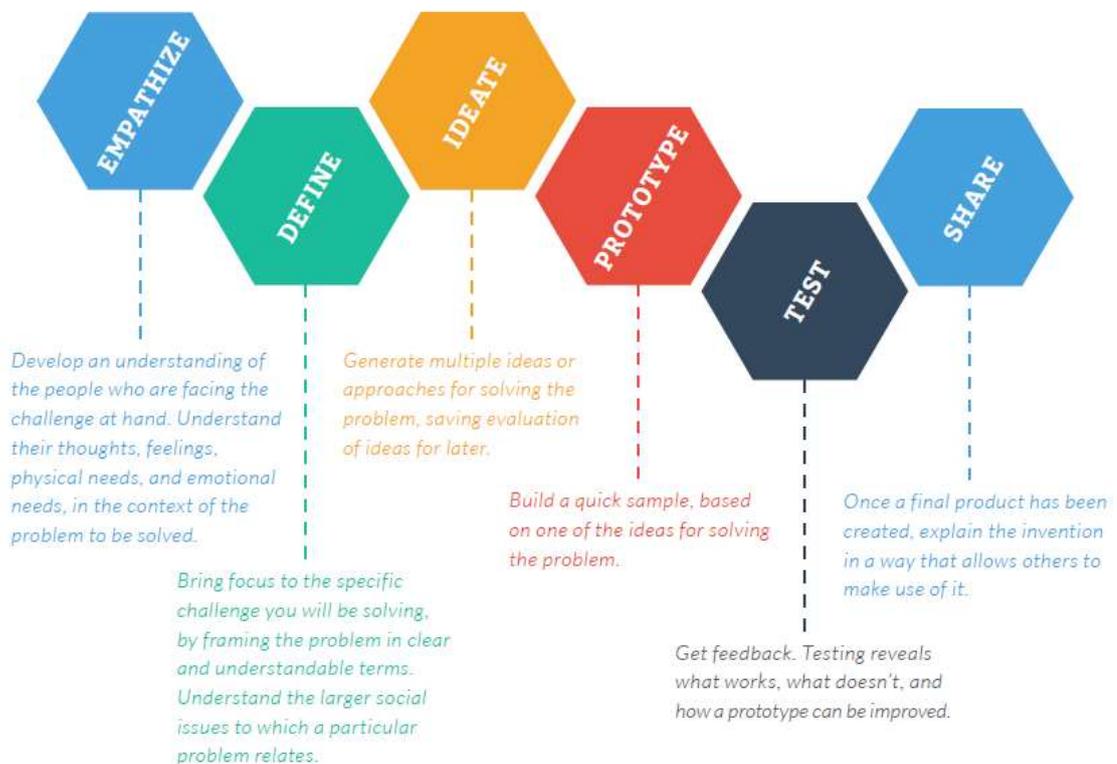
Entries need to be emailed to techweek@wipltd.co.nz by 5pm Friday 6 July.

Entries will be uploaded to the Young Innovators Challenge YouTube Channel.

Step 1: Understand the Design Process

How Ideas Become Reality...

To create the best inventions possible, designers, inventors, and engineers around the world often use something called “**The Design Process**”. This process helps you understand a challenge, think of solutions, and create a final product that is awesome, effective, and ready to be shared with the world!



Step 1: Find a good problem to solve & think about who you are helping



What are the problems or issues that you're concerned about? Think about problems you see at home, at school, within your community or around the world. Write them all down on a big piece of paper, then decide on one that you really care about.

Here's some examples:

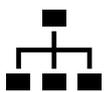
Homelessness Pollution of rivers Climate change
Cyber-bullying Elderly being lonely Traffic jams
Not enough food in the world



Think about the people who are experiencing the problem, how they are feeling, what takes them a lot of time, where they make mistakes etc...



Jargon alert! A “**persona**” is a way of describing someone, what they are trying to achieve, what habits they have and their challenges.



Option: You can use the example personas below to fill in the table or make one up yourself.



Caitlyn: My grandparents want to live in their own home, but we're worried about them falling over and hurting themselves. How can we know they are safe while retaining their independence at home?



Nala: A big problem in my neighbourhood is the amount of kids that get sick, and then can't come to school. Any ideas how we can keep everyone healthier?



Brodie: I like learning stuff, but sometimes school can be hard. How can we make it easier to learn?



Ben: I'm a farmer and I want to improve the water quality of our rivers so it's safe for my kids to swim, but I don't know how to save water or minimise the impact of my animals.



George: I get bullied at school. How can I stop this from happening?



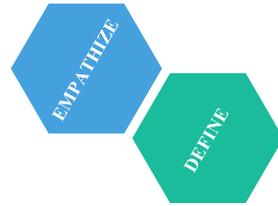
Ranjeeta: Sometimes at home I get bored. My parents tell me to go and exercise, but how can I make this more fun?



Steve: I don't know what I want to do after I finish school, and robots are taking jobs so quickly. What is a solution to find interesting jobs that are available?

<p>PICTURE Draw or paste a picture of the persona.</p>	<p>NAME & DESCRIPTION Talk about your persona and what makes them special. This can include demographic information.</p>	
<p>GOALS What does this persona want to accomplish?</p>	<p>CHALLENGES What challenges do they face accomplishing their goal?</p>	<p>HABITS What are their shopping habits, internet habits, reading habits, or other important habits?</p>

Step 2: Define the problem



_____ is feeling

(write your persons name above)

*happy sad frustrated hopeful confused hurt
scared curious calm angry tired*

*discouraged lonely surprised tense
or feeling _____*

(circle your persons feelings above)

and needs me to design a solution to a social problem
about _____ .

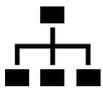
*transportation environment communication
food health energy education safety*

(circle your persons issue above)

Step 3: Ideate / Brainstorm



Be respectful, let everyone have a turn and remember, there is no such thing as a bad idea. Most innovations have come from crazy & wild ideas from one team member sparking ideas in another.



Option: Give each team member some post it notes or paper to put on the table or on the wall to record their idea. *Note: You may need to come back to the ideas at a later stage so keep them all.*

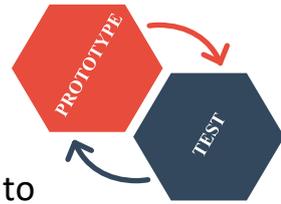


Ideate / brainstorm as a group for 15 minutes, then take 15 minutes to vote and agree on a way forward.

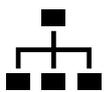


Jargon alert! “Brainstorm” is just another way of describing how you talk and write down any ideas that come into your head without worrying about whether they are feasible or not.

Step 4: Prototype



Jargon alert! “Prototype” is just another way of explaining a way to create something that can be used to demonstrate a concept or a solution. It does not have to be the final solution, so don’t feel constrained in any way.



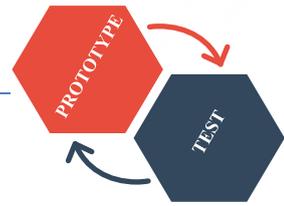
Options: To prototype your ideas you can use **any materials** ranging from paper, plasticine, cardboard & wood to the examples below.

Have a look at the Young Innovators Challenge page at <http://techweek.wipltd.co.nz> for some ideas.



Sourcing materials: If you are having trouble sourcing materials or would appreciate additional support services, please contact jannat.maqbool@wipltd.co.nz

Step 5: Iteration



Critique your solution & ask others to provide feedback.

Version 1 feedback:

What's good?	Questions?	Things to change?

Version 2 feedback:

What's good?	Questions?	Things to change?

Version 3 feedback:

What's good?	Questions?	Things to change?

Step 6: Share

SHARE

Share your creation with the world!



This is where you get to tell people about your creation, so that they can understand it and use it.

You could make a video/webpage/slideshow, or put it into words and pictures.

Appendix A: Reflection (optional)

Reflect on how you found each step and how it links to your learning

The diagram consists of six hexagonal steps arranged in a slightly descending sequence from left to right. Each step is connected to a set of horizontal lines for reflection by a vertical dashed line of the same color as the hexagon.

- EMPATHIZE** (Blue hexagon): Connected to 5 blue horizontal lines.
- DEFINE** (Green hexagon): Connected to 5 green horizontal lines.
- IDEATE** (Orange hexagon): Connected to 5 orange horizontal lines.
- PROTOTYPE** (Red hexagon): Connected to 5 red horizontal lines.
- TEST** (Dark Blue hexagon): Connected to 5 dark blue horizontal lines.
- SHARE** (Light Blue hexagon): Connected to 5 light blue horizontal lines.