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The Impossible Bridge

bit.ly/utbsphero8

L2 Processes and strategies
Select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas.

- shows some understanding of the connections between oral, written, and visual language when creating texts
- creates texts by using meaning, structure, visual and grapho-phonic sources of information, and processing strategies with growing confidence
- begins to add or delete details and comments, showing some selectivity in the process

CT PO1/2
- I can figure out how a simple task can be broken down into a series of steps (called decomposition).
- If I find my instructions don't work then I wonder why this is and correct them so that they work better next time (called debugging)

I can say what the main idea of the story was.
I can say one thing about building bridges.
I can use technical words to describe my bridge.
I can create a program for my sphero to travel across a bridge and stop on the other side.

	Resources
Recap: What was the main idea of the story? Vocab: Engineer - engineers are people who design and build things like machines, buildings and bridges scale model How is an arch bridge different to a beam bridge? truss Suspend Think, pair, and share what they've learnt about bridges from this text.	The Impossible Bridge.
Introduce the sphero. What do you think this is? What can robots do? Explain sphero in simple terms - Sphero - sphere is a 3D circle - Has a battery - Uses bluetooth to talk to the ipad - LED lights - Needs a human to tell it what to do	
Demonstrate how to use the sphero - Find the sphero EDU app - Pair ipad to a sphero	Poster - Pair, Aim, Program

- Create a new program - Aim your sphero - Code is read from the top block down - Different types of blocks - today we're using movement, sound, light - How to undo - How to change colour - How to change LED lights to know which is yours - start	
Activity: Allow time for experimentation with the sphero. Then: Find a partner It's your turn to be engineers. Use the materials given to construct a bridge that your sphero can travel over. Can you program it so your sphero stops on the other side of your bridge? **Ext:** Can you program your sphero to tell us what you the length of the bridge is when it completes the crossing? Can you work out how much less time it would take for your sphero to cross the bridge if you increase the speed by 5? **Reflection:** Could we program our sphero to accurately cross your bridge? Did our sphero go where we wanted it to? What did we do if things didn't go right? Did we work well with our buddy by listening to their ideas?	Ice block sticks Masking tape newspaper