



East
Kalgoorlie
PRIMARY SCHOOL

CIRCUIT BREAKERS

WESTERN POWER

KURLI (YEARS 5 & 6)



-
- Our school, East Kalgoorlie Primary, is located in the City of Kalgoorlie-Boulder. We are a small school of 150 students and 98% of our students are Aboriginal.
 - The school is committed to developing innovative strategies to address disadvantage and poor academic outcomes of Aboriginal students.
 - Our year 5/6 class, took on the Circuit Breakers challenge.

WHAT WE LEARNT ABOUT WESTERN POWER

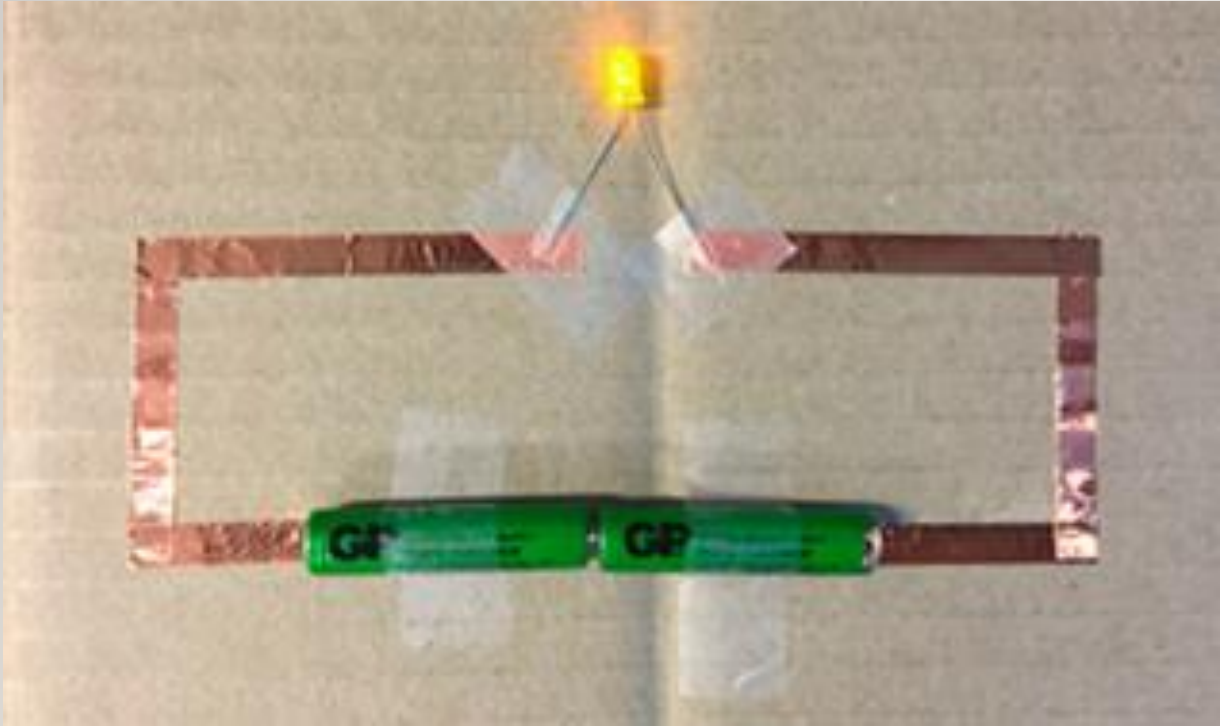
- Western Power store electricity in batteries.
- Western Power do not generate electricity, they distribute it,
- Computers help spread power around our city.
- Western Power look after power, so that we can enjoy our lives.

WHAT WE LEARNT ABOUT ENGINEERING

- Engineers make our life easier by designing, creating a building new things to help us.
- There is different types of engineers.
- STEM is a way for us to learn about engineering.



SIMPLE CIRCUIT



ENGINEERING A SIMPLE CIRCUIT



THE BRIEF: DESIGN THE NETWORK OF THE FUTURE

At least 3 different types of building

Plans should indicate what each building will be, e.g. house, swimming pool, factory, apartment block, power station

At least 5 different 3D shapes from the provided list

Plans should indicate what combinations of 3D shapes they are going to use for each building

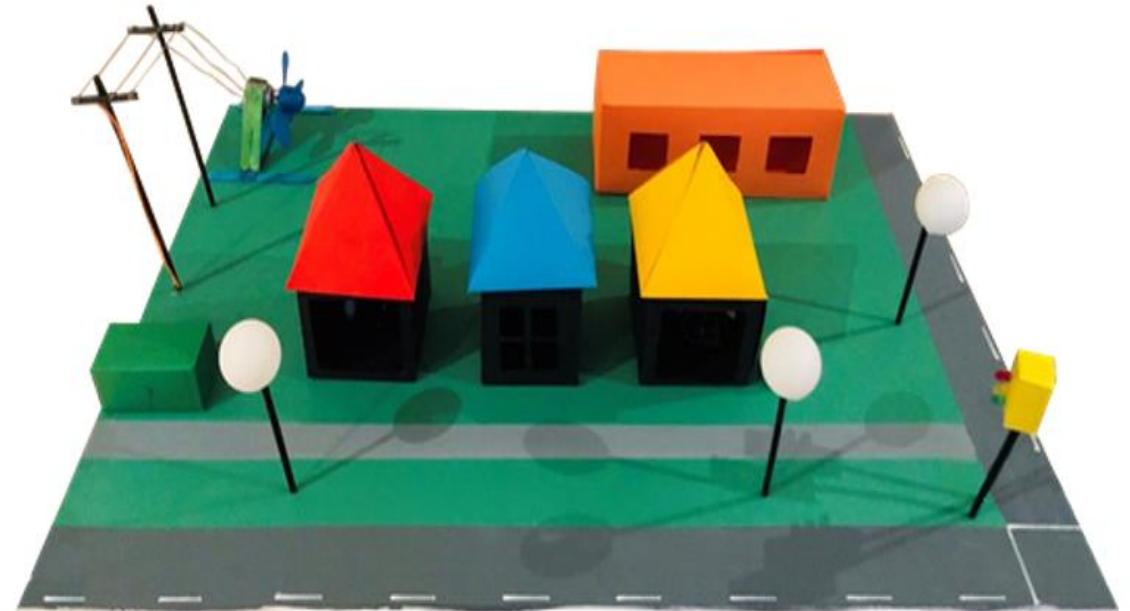
At least 2 functional demonstrations of how energy will be used

Plans should indicate where these demonstrations will be and what type of energy use they will demonstrate. Examples might include:

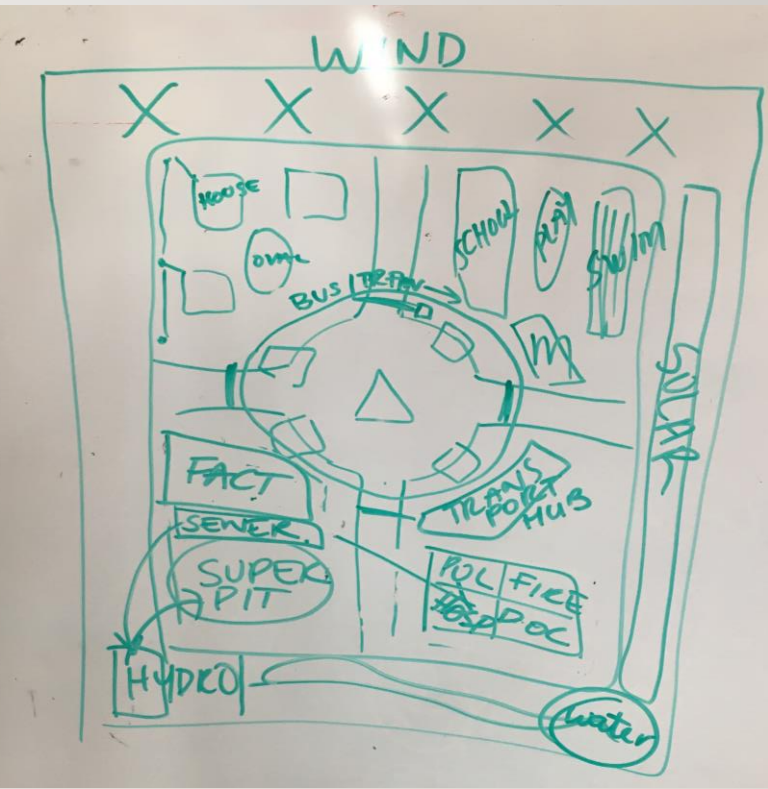
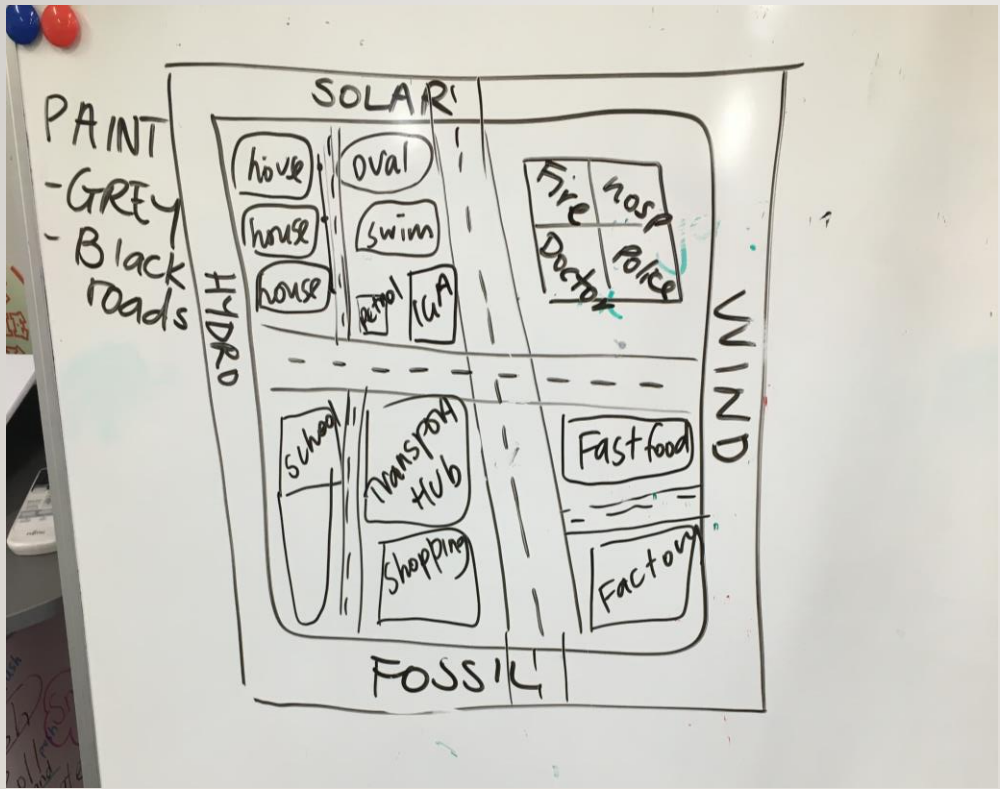
- interior lighting for homes and buildings (using LEDs)
- street lights (three different colours of LED)
- traffic lights (LEDs in ping pong ball at the top of a straw)
- electric vehicle charging stations (rows of LEDs)
- outdoor advertising screens (micro:bit scrolling text)

At least 2 micro:bits systems

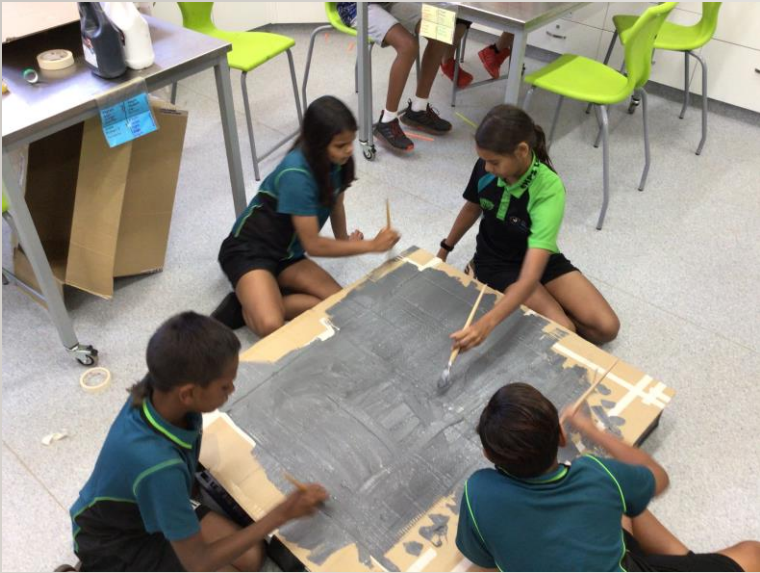
Plans should indicate how micro:bit systems will utilise a combination of LEDs, sensors and sound to demonstrate how energy will be used and controlled in the network of the future



OUR DESIGNS



THE BUILD



THE EKPS NETWORK OF THE FUTURE



OUR FAVOURITE LEARNING EXPERIENCES THAT CIRCUIT BREAKERS TAUGHT US:

- It wasn't boring!
- Micro-bits are tiny computers.
- Computer are found in most things we use everyday.
- STEM is fun!
- Coding is an important skill to learn and may help us get good jobs in the future!

