

# UniSA STEM Showdown

Presented by UniSA Education Futures

## POWER FAILURE

**Name:** \_\_\_\_\_

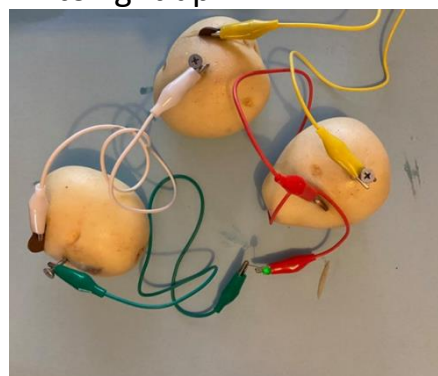
*The STEM Showdown is a series of STEM challenges to solve by the end of the season. You can complete the tasks individually or in small groups (up to 3 people). Make sure you write all the names of the people in your group above. The student with the most tasks completed over the season will be crowned the UniSA STEM Showdown Champion. Good Luck.*

### Power Failure

The school has had a power failure. You will need to make your own battery out of the items provided to create enough voltage to light the LED (Light Emitting Diode).

### Your Task

- You will be supplied with fruit and vegetables, wire, coins/copper pieces, screws/iron pieces and one LED.
- Create a circuit out of these items that gets the LED to light up.



- Get your voltage checked using a multi meter. It needs to reach at least 0.6V to light the LED enough to see your way out.
- Once you have created a circuit to produce enough volts get your sheet signed below

STEM Showdown Umpire Comments	Completed (STEM Showdown Umpire to sign)


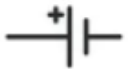






## Extension task

Once you have completed the task you can try the extension activity.

What is the highest voltage (or brightness of the light) you can achieve?

Type of fruit/vegetable	Number of Fruit/Vegetable Pieces	Voltage/Brightness	Completed (STEM Umpire to sign)

Draw the circuit that you made with the highest voltage using the key

Picture	Description	Symbol
	Fruit is one cell of battery	
	Negative	-
	Positive	+
	LED	
	Wire	



STEM Showdown Umpire Comments	Completed (STEM Showdown Umpire to sign)

**Make sure you hand up your signed sheet to the umpire at the end of the session to have your points allocated to the leaderboard**