



**Task 5 –  
Extension  
Worksheet**

**What do you need to do?** 

**BAE SYSTEMS**

**Task A – Solar Cell Applications**

**Solar cells are commonly used for jobs that are low-maintenance and require little power. Match the applications on the left with the correct description on the right.**

Power source for a satellite in space

In this everyday device, solar cells are a convenient alternative to using rechargeable batteries or mains electricity supply

Emergency telephone on a motorway

For this application, reliability is more important than cost – when it is in orbit, it is very difficult to carry out any required fixes.

Electricity generation for a remote farm

These devices are a long way from a normal electricity plug socket – a small panel of solar cells is a convenient power source.

Solar Powered Calculator

These panels cost a lot of money to buy, but allow money saving in the long term.

Solar panels on the roof of a house

This can provide a cheaper method of generating electricity, because it avoids paying lay cables to the electricity grid.

# FORCES IN STEM

## Task 5 – Extension Worksheet

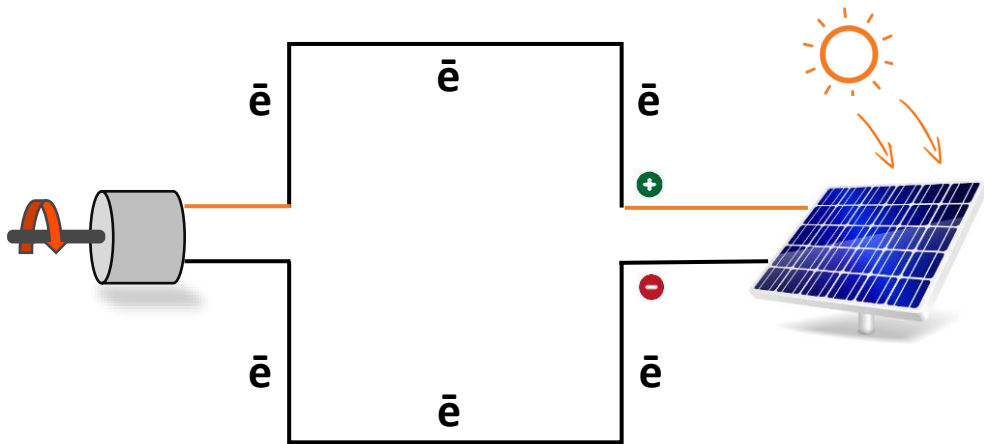
What do you need to do? 

**BAE SYSTEMS**

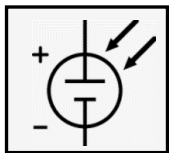
### Task B – Solar Cell Circuit Board

A solar or **photovoltaic** cell is a device that produces an **electrical current** when exposed to a source of light. **Electrons** ( $e^-$ ) are negatively charged (-) and flow round a circuit to carry electricity.

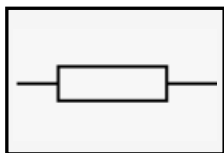
Add arrows to the below diagram to show the path an electron would take around the circuit.



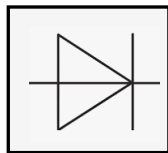
Can you label the circuit symbols below with their correct names?



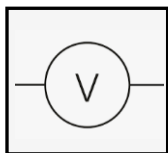
S \_ \_ \_ C \_ \_ \_



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