Test 1 Questions PV Panels: Types of Panels

1. Name the 3 types of solar PV Panels.

Monocrystalline, polycrystalline or multi, amorphous

1. What type is used in calculators?

Amorphous is used.

1. What type is flexible?

Amorphous.

1. What type is more to the blue colour?

Polycrystalline (Multi).

1. Why is silicon a good insulator?

It has 4 valence electrons.

1. How is silicon made to be positive?

By doping it with a trivalent element.

1. How is silicon made to be negative?

By doping it with a pentavalent element.

1. Define band gap energy.

The solar energy received to raise the electrons to the conductive band in the silicon PV panel.

1. When the energy captured by silicon gets recombined what happens?

Photonic energy is released just like an LED.

1. What are the names of the wavelength groups and approximately what percentages account for each of the types?

Infrared at 45-50%, Visual at 45-55, Ultraviolet at 2-4%

1. What is the difference between conventional current flow and electron flow?

Conventional is positive to negative and electron is the opposite.