What is the conduction band and what do we call electrons free to move?

What is the valence band and how is it described in an insulator?

Identify whether the p-n junctions are forward or reverse biased and how this effects the electric field.

Identify the materials

Explain the LED p-n junction

Explain solar cell p-n junctions

Diagram

Description automatically generated

A picture containing diagram

Description automatically generated

Explain doping and describe examples of n and p type semiconductors.

Diagram

Description automatically generated

http://hyperphysics.phy-astr.gsu.edu/hbase/Solids/pnjun2.html

Label the band theory diagram of the atom

What potential difference forms across the depletion layer when conducting?

Identify the junction and semiconductor types

https://upload.wikimedia.org/wikipedia/commons/thumb/0/0b/Band\_gap\_comparison.svg/2000px-Band\_gap\_comparison.svg.png

Label the diagram

Shape, square

Description automatically generated

https://www.physicsscotland.co.uk/classes/higher-physics-cfe/semiconductors

Semiconductors and p-n junctions

Diagram

Description automatically generated

Graphical user interface, text, application

Description automatically generated

