



NEFERTARI INTERNATIONAL SCHOOL, CAIRO, EGYPT

Physics for IB

Admission Exam for Grade 10

- **Waves**
 - i) Introduction (including the classification of the waves, the quantities such as period, wavelength, etc., and the reflection, reflection, and diffraction of water waves).
 - ii) Electromagnetic spectrum and its uses.
 - iii) Reflection and refraction of light including using Snell's law to find the refractive index and the angle of refraction of light.
 - iv) Thin converging lens and how to draw the three rays used to find the position and size of the image.
 - v) Long and short sightedness including their causes and treatment.

- **Electricity**
 - i) Introduction (including the details of charge, current, voltage, and resistance)
 - ii) Electrical symbols and how to draw an electrical circuit.
 - iii) Ohm's law and series and parallel circuits.
 - iv) Dangers of Electricity.

- **Mechanics**
 - i) Scalar vs vector quantities including examples to each type.
 - ii) Position-time graphs.
 - iii) Velocity-time graphs.
 - iv) Average speed.
 - v) Acceleration and acceleration of free fall (ignoring air resistance).
 - vi) Forces and introduction to Newton's laws of motion.