

LIGHT الضوء

Light is a form of energy, which is electromagnetic waves consisting of electric waves perpendicular to magnetic waves, and each wave consists of the top and bottom of the bottom, and the wave consists of the distance between two peaks respectively.

النواع التداخل بين الموجات There are two types of overlap between waves

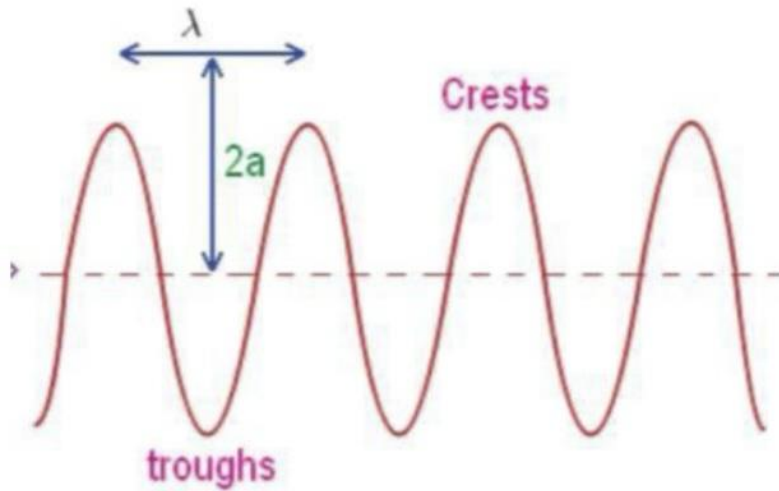
1) **تداخل بناء** **Constructive overlap**

It is the overlap that occurs as a result of the convergence of two waves agreed in the phase (**Top with Top**) and (bottom with bottom).

* It results in luminous cilia

شروط التداخل البناء Conditions Construction

- 1- That the two waves are complete .
- 2- that their launch at the same time simultaneous .
- 3- that their launch together should be in the same way in phase



تداخل هدام Demolition overlap

It is the interference that occurs as a result of the convergence of two different waves in the phase

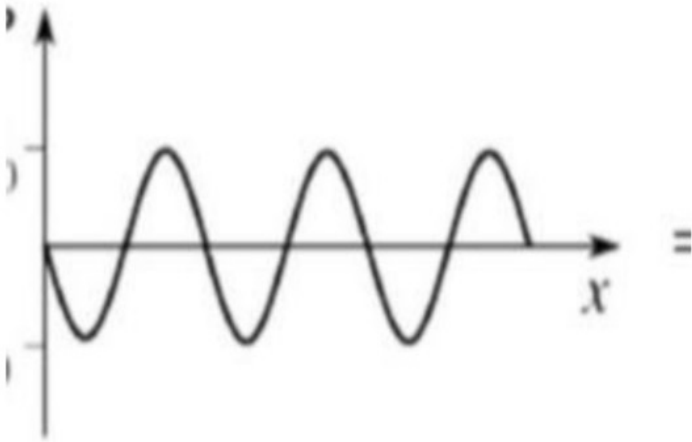
In which the top of the first wave meets the bottom of the second and vice versa, weakening each other

* **It results in dark cilia**

Destruction Interference

1- The two waves must be complete

2- Not to go together in the same way out of phase



Light for the ability of the human eye to see it is divided into two parts:

Visible light: White light is one whose wavelengths range from 380nm to 800nm.

Invisible light: Light whose wavelengths are beyond the range of visible light, such as Ultraviolet

مصادر الضوء Light Sources

Light sources are divided into two parts:

1 - Luminous Bodies اجسام مضيئه

They are objects that emit light from themselves, such as

The candle and the lamp are divided into two types:

A- Inflamed Bodies: Like A (bulb). اجسام ملتهبه

B- Non-Inflamed bodies: such as a neon lamp اجسام غير ملتهبه

2- Non-luminous bodies اجسام غير مضيئه

They are objects that reflect the light falling on their surface and look luminous like the moon.

Objects and light الاجسام والضوء

Objects are affected by light, they either absorb part of light or reflect part of it, they either implement part of it.

Objects are classified into three sections:

1- اجسام شفافة - Transparent objects

They are colourless materials that pass light in large quantities such as glass.

اجسام الملونه الشفافه 2 - Transparent coloured objects are objects that pass one or more colours and absorb the rest like red glass.

اجسام معتمه 3 - **The dark objects**

They are opaque materials that reflect a section of fallen light and absorb the rest like wood

سرعه الضوء * **The speed of light**

The speed of light in a vacuum or air is approximately equal to 300,000Kilometres in a second

*It is symbolized by C