



Name: .....

## Light Waves 1

Key words	Translation	Write the key words
Vacuum	الفراغ	
Medium	الوسط	
Matter	المادة	
Electromagnetic	كهر ومغناطيسي	
Energy	طاقة	
Wavelength	طول موجي	
Frequency	تردد	
Spectrum	طيف	

1- Compare between the (sound wave and light wave) by filling the table.

Can travel through matter only	Can travel through vacuum and matter

2- Complete this sentence.

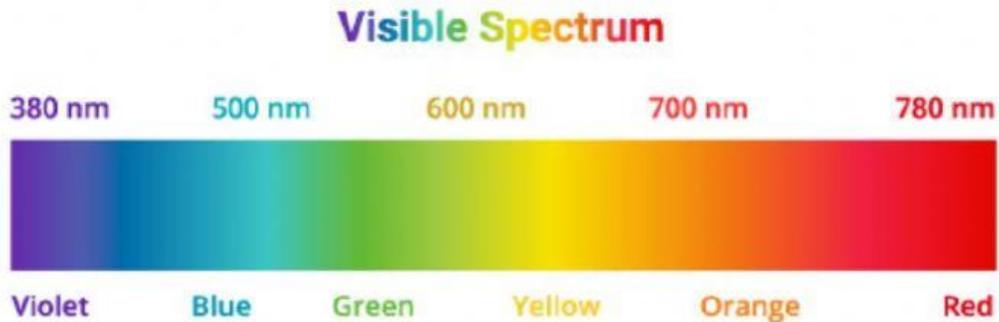
Light is a type of waves called ..... waves.

- A. Mechanical
- B. Electromagnetic
- C. Transvers
- D. Longitudinal

3- In which of the following mediums the speed of the light is the largest?

- A. Water
- B. Air
- C. Glass
- D. Dimond

4- From the visible light spectrum fill the table below:



Description	The light color
The lowest light energy	
The highest light energy	
The shortest light wavelength	
The longest light wavelength	
The lowest light frequency	
The highest light frequency	

5- Which of the following lights has the largest energy?

- A. The green light.
- B. The red light.
- C. The orange light.
- D. The violet light.

6- Which of the following lights has the longest wavelength?

- A. The violet light.
- B. The Orange light.
- C. The Yellow light.
- D. The Blue light.

7- Which of the following lights has the lowest frequency?

- A. The violet light.
- B. The Orange light.
- C. The Yellow light.
- D. The Blue light.

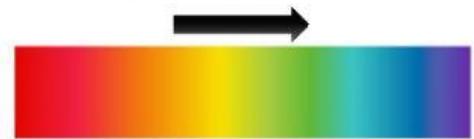
8- Order the following colors of visible light from the lowest energy to the highest energy.

Green light – Blue light – Red light

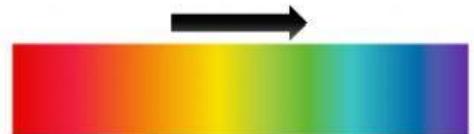
9- Order the following colors of visible light from the shortest wavelength to the longest wavelength.

Violet light – yellow light – green light

10- In the visible spectrum shown in the figure describe the changes in energy when we move to the right.



11- In the visible spectrum shown in the figure describe the changes in wavelength when we move to the left.



12- What is the speed of light in the vacuum?

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