

Electromagnetic waves recall questions

1. What type of wave are electromagnetic waves? **Transverse (and transfer energy from the source of the wave to an absorber).**
2. What property do all electromagnetic waves share? **Travel at the same velocity through a vacuum (3×10^8 m/s) or air.**
3. Write down the seven parts of the em spectrum in order. **Gamma, X-ray, uv, visible, infrared, microwave, radio**
4. Draw a wave diagram to show refraction. Include the normal.
5. What type of wave is produced by oscillations in electrical circuits? **Radio waves**
6. Which part of an atom changes to produce gamma rays? **The nucleus**
7. Say three em waves that can damage body tissue. **Gamma, X-rays, uv**
8. What are two effects that uv waves can have on skin? **Cause skin to age prematurely, increase the risk of skin cancer.**
9. Say one use for each type of em wave.

Wave properties application questions

1. What property determines whether a wave is reflected, refracted, transmitted or absorbed by a material.
2. Draw wave diagrams that show refraction when a wave slows down and when a wave speeds up.
3. Explain how radio waves can create a current in an electrical circuit.
4. Explain a use for each type of em wave e.g. why X-rays can detect cracks in bones.