



Assessment Date: ____/____/____	Student: _____	Examiner: _____
Words Read Correctly (WRC): ____	Errors: ____	Notes: _____

Introduction to Light

Primary Connections

The sun is the Earth's primary source of energy, emitting a broad spectrum of electromagnetic radiation (energy which can travel through a vacuum and matter).	14 25
Without the energy from the Sun there would be no life on Earth. One type of energy emitted from the sun is light. What we call light is a specific type of energy called 'visible light' - the light that humans can see.	42 59 67
Electromagnetic radiation is represented by the electromagnetic spectrum. Visible light is only a very small part of the spectrum and is important to us because it is this radiation that is detected by the retina and transmitted to the brain by the optic nerve. Other types of electromagnetic radiation include radio waves, microwaves, infra-red radiation, ultraviolet light, X rays and gamma rays. The Earth's atmosphere filters out most of these, except in specific regions called windows such as exist for radio waves and visible light. Radios, television sets, microwave ovens, and mobile phones are all devices which operate using electromagnetic radiation.	77 95 111 122 135 150 163 169
Electromagnetic radiation, including light, is described by a wave-like model which has properties of waves and particles at the same time. A wave consists of discrete 'packets of energy' called photons that travel in a straight line in a continuous stream. The term 'particles' in this model does not refer to particles of matter but describes the photons or packets of energy.	181 196 211 227 232



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