

Name: _____



Non-ionising electromagnetic radiation

Task A: Ionising and non-ionising EM radiation

- 1) Describe how the frequency of EM waves affects their ability to ionise atoms.

- 2) Explain why the ability of EM waves to ionise atoms changes with frequency.

- 3) State how infrared radiation can damage living cells.

Task B: Radio waves and microwaves

- 1) Explain why radio frequencies are well suited for long-distance communication on Earth.

- 2) Explain why microwave frequencies are suitable for satellite communications.

- 3) Explain why microwave frequencies are suitable for cooking food.



Task C: Infrared and visible light

Fill in the table to summarise the properties of non-ionising EM radiation. Some columns can be merged as the properties are the same for all.

	radio waves	microwaves	infrared (IR)	visible light
what are they?				
speed in air				
how ionising?				
dangers				
example uses				
example sources				
example absorbers				

