Blurt it

Step 1

Name _____ Date _____

1. Cover your notes and put your phone face down.
2. Set a timer for 5 minutes.
3. Write down everything you remember about waves: facts, key words, equations, practicals, and mistakes to avoid. Diagrams count too.

Stuck? Start with one of these: wavelength · frequency · electromagnetic spectrum

When the timer ends, turn over and check what you remembered.

Speca is an independent product and is not affiliated with, endorsed by, or sponsored by AQA or any other exam board.

Check it, fix it, space it

Steps 2, 3 and 4

Check it

Tick each idea you wrote down, even in your own words.

- [ ] Transverse waves include ripples on water; longitudinal waves, like sound, have compressions and rarefactions
- [ ] The wave moves, not the water or air itself
- [ ] Amplitude, wavelength, frequency and period describe a wave; period = 1 ÷ frequency
- [ ] Wave speed = frequency × wavelength
- [ ] Electromagnetic waves are transverse and all travel at the same speed in a vacuum
- [ ] Electromagnetic spectrum, long to short wavelength: radio, microwave, infrared, visible, ultraviolet, X-rays, gamma; our eyes only detect visible light
- [ ] Ray diagrams show refraction where a wave crosses into a different material
- [ ] Ultraviolet can age skin and raise skin cancer risk; X-rays and gamma are ionising and can cause mutations and cancer
- [ ] Radiation dose measures the risk of harm from radiation
- [ ] Uses: radio for TV and radio, microwaves for satellites and cooking, infrared for heaters and cameras, visible light for fibre optics, ultraviolet for lamps and tanning, X-rays and gamma for medicine

Higher only

- [ ] Different materials absorb, transmit, refract or reflect electromagnetic waves differently, depending on wavelength
- [ ] Refraction happens because a wave changes speed when it enters a new material; show it with wave-front diagrams
- [ ] Radio waves can be made by an alternating current in a circuit, and can make one
- [ ] Explain why each type of electromagnetic wave suits its use

Key words to use: transverse wave · longitudinal wave · compression · rarefaction · amplitude wavelength · frequency · period · wave speed · electromagnetic spectrum · refraction

I remembered _____ out of 10. **Higher only: _____ out of 4.**

Fix it

Pick 3 ideas you missed. Look them up, then write each one correctly.

1	2	3

Space it

Blurt again on a fresh sheet. Gaps help you remember for longer.

Tomorrow	In 3 days	In a week
Date _____	Date _____	Date _____
Score _____ / 10	Score _____ / 10	Score _____ / 10
Higher only _____ / 4	Higher only _____ / 4	Higher only _____ / 4

Speca is an independent product and is not affiliated with, endorsed by, or sponsored by AQA or any other exam board.