



Waves Spiral Teacher notes

This puzzle is a revision exercise aimed at students who've completed the "waves" component of single or double award science GCSE. (Sc4: 2a-h; characteristics of waves, the electromagnetic spectrum and sound & ultrasound).

In class, most students "get it" pretty quickly when they realize that the last letter of any word is also the first letter of the next word.

A clues sheet is available to help the less able crack the puzzle- it has a few extra letters dotted here and there, and some of the clues are a wee bit made easier. Feel free to adapt the puzzle by adding further letters if need be.

Extension work

Can students make different clues that will still give the same answers?

For example, an alternative clue giving the answer "amplitude" could be "half the vertical difference between the peak and trough of a wave".

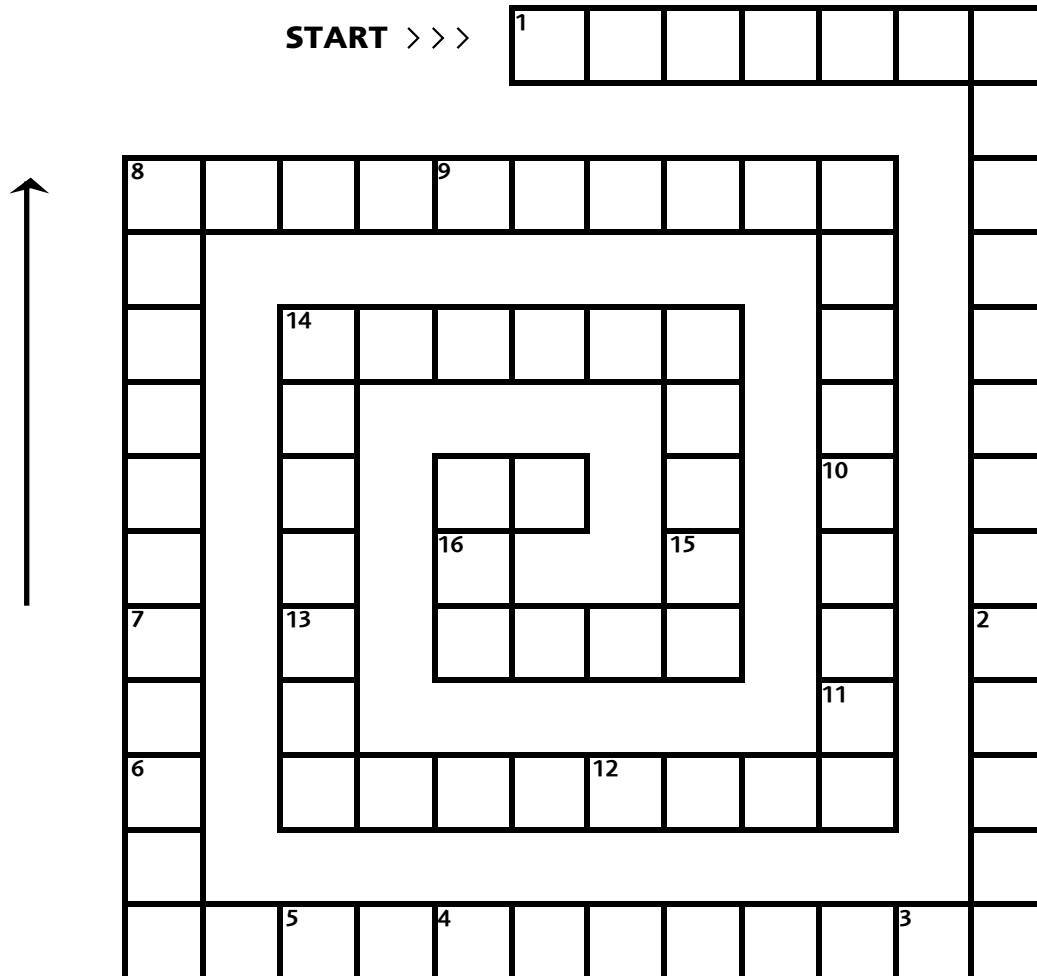
Or students could be asked to use the blank answer grid to fit in answers for questions they make for a (science) topic of their own choosing. They'll need to tippex out the existing numbers and maybe lose a box or two at the end or add an extra box or two at the start so that their new answers will fit. Have copies made of the best for the rest of the group to enjoy this fun new way to revise (!)



Waves Spiral of doom

Each clue gives you a word in the spiral.

1. Put each word into the spiral.
2. Words go in a clockwise direction.
3. The last letter of any word is also the first letter of the next word.



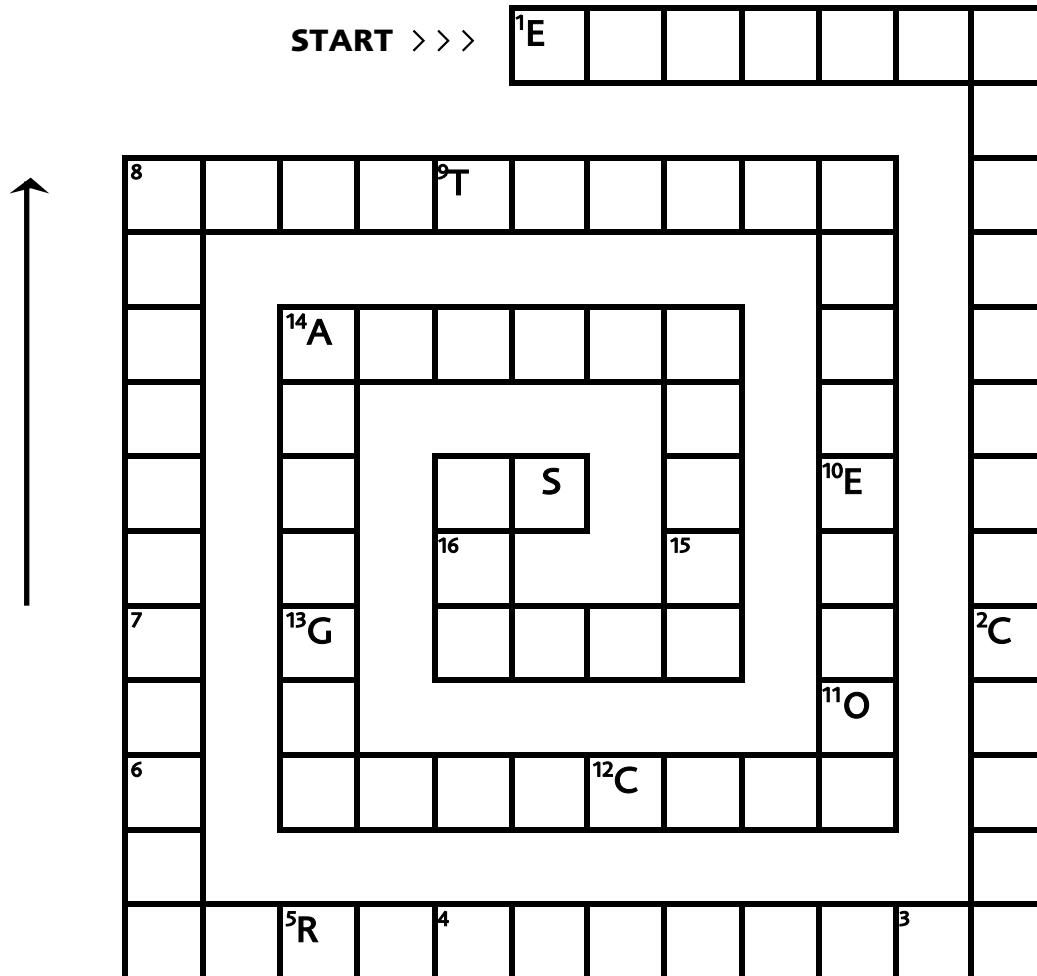
- | | |
|--|---|
| 1. The EM in EM waves | 9. Not longitudinal |
| 2. Some kinds of radiation can increase the risk of this | 10. Reflected sound |
| 3. To bend light | 11. Type of fibre replacing copper cable |
| 4. Total Internal Reflection | 12. One use of microwaves |
| 5. Radio Detection and Ranging | 13. High energy, short wavelength radiation |
| 6. Top colour of a spectrum | 14. The height of a wave peak above the rest position |
| 7. Not analogue | 15. All waves transfer this |
| 8. The visible bit in the middle of the EM spectrum | 16. Isn't science great? |



Waves Spiral with clues

Each clue gives you a word in the spiral.

1. Put each word into the spiral.
2. Words go in a clockwise direction.
3. The last letter of any word is also the first letter of the next word.



1. The "EM" in EM waves
2. Some kinds of radiation can increase the risk of this.
It's when cells divide uncontrollably
3. To bend light
4. Total Internal Reflection
5. Radio Detection and Ranging
6. Top colour of a rainbow
7. Signals that aren't analogue.
Think of new types of TV (or ones and zeroes)
8. Don't be in the dark!
The visible bit in the middle of the EM spectrum
9. The two families of waves are longitudinal and ...?
10. Reflected sound
11. Type of fibre replacing copper cable
12. One use of microwaves. (Think of ovens)
13. High energy, short wavelength radiation. (It's not alpha or beta)
14. The height of a wave peak above the rest position
15. All waves transfer this
16. Isn't science great? Y/N

