

# Science | Science fundamentals | Year 8 | Spring 2

Week 1	Week 2	Week 3
<ol style="list-style-type: none"> <li>1. What is a tissue?</li> <li>2. What is an organ?</li> <li>3. Name 3 organs in the digestive system</li> <li>4. What is an enzyme?</li> <li>5. What causes an enzyme to stop working (denature)?</li> </ol>	<ol style="list-style-type: none"> <li>1. What is an atom?</li> <li>2. What is an element?</li> <li>3. What is a compound?</li> <li>4. What is a mixture?</li> <li>5. What is the periodic table?</li> </ol>	<ol style="list-style-type: none"> <li>1. What is electrical current?</li> <li>2. How can we calculate the resistance in a circuit?</li> <li>3. What is resistance?</li> <li>4. How do the poles of a magnet behave when N-N or S-S and N-S?</li> <li>5. What occurs around a wire when current flows through it?</li> </ol>
Week 1 answers	Week 2 answers	Week 3 answers
<ol style="list-style-type: none"> <li>1. A group of similar cells working together to perform a specific function</li> <li>2. A group of tissues working together to perform a specific function</li> <li>3. Stomach, pancreas, small/large intestine, mouth, tongue, teeth, anus, rectum, oesophagus</li> <li>4. A biological catalyst that breaks down food</li> <li>5. High temperature and changes in pH</li> </ol>	<ol style="list-style-type: none"> <li>1. The smallest part of an element</li> <li>2. A substance containing only one type of atom</li> <li>3. Contains 2 or more types of atom, chemically bonded</li> <li>4. Contains 2 or more types of atom, not chemically bonded</li> <li>5. A table containing all the known elements, grouped by similar chemical and physical properties</li> </ol>	<ol style="list-style-type: none"> <li>1. A flow of charge / electrons</li> <li>2. Resistance = voltage / current</li> <li>3. Anything that slows down the current</li> <li>4. N-N and S-S (like poles) repel, but N-S (opposite poles) attract</li> <li>5. An electromagnetic field</li> </ol>

# Science | Science fundamentals | Year 8 | Spring 2

## Week 4

1. Put this simple food chain in order – fox, cabbage, snail, bird
2. What does a food chain represent?
3. Why do food chains usually not have more than 3 levels?
4. Why do things decay?
5. Give 2 adaptations of an animal living in the cold

## Week 5

1. List the different layers of the earth
2. What are the 3 different types of rocks formed?
3. What is a fossil fuel? Give 3 examples
4. What is the composition of the earth's atmosphere today?
5. What is different about today's atmosphere compared to when it was first formed?

## Week 6

1. Light is a transverse wave, what does this mean?
2. Sound is a longitudinal wave, what does this mean?
3. What is reflection?
4. What is refraction?
5. What is a light year?

## Week 4 answers

1. Cabbage → snail → bird → fox
2. The transfer of energy from food
3. Because the energy transfer becomes too small, the organisms get less energy from the food
4. Bacteria respire using the dead organisms as fuel
5. Thick fur, dark skin, small ears, small surface area to volume ratio

## Week 5 answers

1. Crust, mantle, outer core, inner core
2. Igneous, metamorphic, sedimentary
3. Fossil fuels are formed from dead organisms over millions of years, e.g. coal, oil, gas
4. 78% nitrogen, 21% oxygen, 0.004% carbon dioxide, <1% other gases such as argon
5. The early atmosphere was full of carbon dioxide and ammonia, with no oxygen

## Week 6 answers

1. Transverse wave vibrations are at right angles to the direction of the wave
2. Longitudinal wave vibrations are parallel to the direction of the wave
3. Reflection is when light bounces off a surface at the same angle as when it hit the surface
4. Refraction is when light enters a different medium and slows down, causing a change in the direction of the light
5. How far light travels in one year, it is a measure of distance