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| Stories |
| Rusty |
| Rubber ducky |
| Dawn Geatches |
| Bottle cars |
| Bullet proof |
| The bigger the pull |

1. What is the orange-coloured coating on the iron rod?
2. What is rust?
3. The chemical reaction that turns iron to rust is slow but it’s also what?
4. What three ingredients do you need to make rust?
5. Why doesn’t the chemical reaction that makes rust stop when it has done the outer layer of iron?
6. So what happens in time?
7. What are “rubber ducks” made of nowadays?
8. What is Dawn’s job?
9. What does she use in her job?
10. Who invented the fizzy drinks bottle?
11. What other great idea did he have?
12. In his plan what happens to the car body when it has reached the end of its life?
13. What gives different types of plastic their different properties?

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| Stories |
| Eat it hot |
| Ocean planet |
| Ocean planet (part 2) |
| Don't drink the water |

1. What is cheese made of?
2. What is lost when you heat a pizza?
3. What does that do to the chemistry?
4. What is the big blue ball in the picture?
5. What is the first surprise about the size of the blue ball?
6. Our oceans are just a thin ---- of water on the surface of the Earth.
7. What is the second surprise about that image?
8. Why can’t we drink most of the water in the large blue ball?
9. Why can’t we drink most of the water in the middle blue ball?
10. So why do one in three people around the world not have access to clean drinking water?
11. What would happen to you if you drank nothing but seawater for several days?
12. Why does dried fruit get juicy if you soak it in water?
13. A weak solution has only a little dissolved substance in it. So a ------ solution has lots.
14. Water moves from a ---- solution to a ------ solution.
15. If you drink loads of seawater your blood becomes salty. What happens then?
16. Why does that happen?

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| Stories |
| Fresh water from the sea |
| Fresh water from the sea (part 2) |
| Is desalination the solution? |

1. How does nature turn salty seawater into fresh water that we can drink?
2. Why is this possible?
3. So to get fresh water from seawater you evaporate it, -------- it and collect it.
4. What does a desalination plant do?
5. Where was the largest in January 2020?
6. A desalination plant works in the same way as what?
7. What is the problem with desalination plants?
8. Do any desalination plants use renewable energy?
9. What does desalination produce?
10. Name one disadvantage of desalination as a way of getting drinking water.
11. Engineers are investigating two ways of using renewable energy for desalination; describe one of them.
12. A desalination plant produces fresh water but what does it leave behind?
13. Why is that a problem?

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| Stories |
| Sweet! |
| Top 10 chemicals - No 1 |
| Top 10 chemicals - No 2 |
| You’re a star! |

1. Your body is mostly what?
2. If we removed all the empty space in all the humans on Earth what could we fit them all into?
3. Name two uses for the chemical we manufacture most of on Earth.
4. Why do you have to be very careful when using this chemical in the lab?
5. What chemicals like this one - but less dangerous - would you often find in most kitchens?
6. In what form are we most familiar with the second most manufactured chemical?
7. In what different form is it transported and used?
8. State two uses for this chemical in its cold, liquid form.
9. What do scientists use it for?
10. What do presenters in science shows use it for?
11. Where were lots of the elements made that our bodies are built of?
12. How long ago were these elements made?
13. What about the hydrogen in your body – when was that made?

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| Stories |
| Flavour secrets |
| Go-faster fuel |
| It is all around you |
| Some things don't change |

1. What does a flavour chemist do?
2. How long do you have to be an apprentice flavour chemist before you get told the formulas?
3. Why do you think the formulas are kept very secret?
4. In what way is Rick trying to improve rocket fuel?
5. What did Daniel Jubb do as a young lad?
6. In which high-speed project is he involved now?
7. What is that project aiming to do?
8. What word means ‘all around you’?
9. Give three examples of chemistry in your car.
10. Give three examples of chemistry in your house.
11. If we find life on other planets, what kind of life will it be, on most of them?
12. How long did that form of life exist on Earth before anything more complex evolved?
13. So the biology will be different on other planets, but will physics be the same?
14. Will the laws of chemistry be the same on other planets?
15. Which structure at the heart of chemistry will be the same on every planet in the Universe?

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| Stories |
| The chemistry of everything |

1. What are the tiny building blocks of everything around us called?
2. Which is the most important type of atom for living things?
3. What property of carbon means animals and plants can all be different?
4. What is the study of atoms and how they stack together called?
5. What are the people who do it called?
6. What knowledge do chemists need so they can make new and better materials?
7. Chemistry is the science of what, according to Derek?