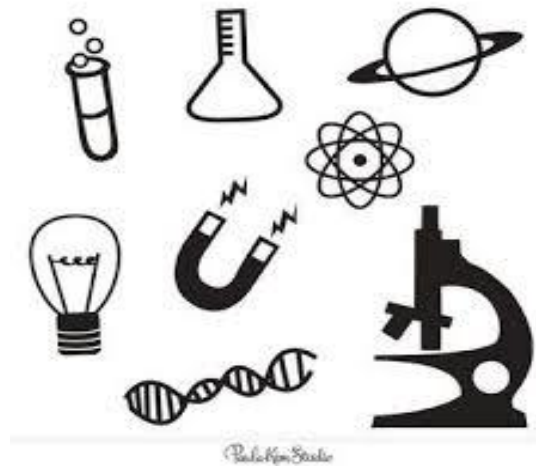




DURHAM JOHNSTON
COMPREHENSIVE SCHOOL
DARE TO BE WISE

Year 8 Science workbook answers



Week 1 Biology Food and Nutrition

Support <https://www.bbc.co.uk/bitesize/topics/zf339j6/articles/z7gpfcw>

Food and Nutrition

1. What happens in the stomach?

Protease enzymes breaks down protein into amino acids & acid kills harmful bacteria

2. What will be the results of someone taking in more energy than they use?

They will put on weight and become obese

3. Why do our bodies need fats?

As an energy store

4. Why do our bodies need protein?

For growth and repair

5. Where does absorption of the food molecules from digestion happen?

The small intestine

6. What will a marathon runner need to eat a lot of and why?

Carbohydrates to release energy

7. Give an example of a food type that contains vitamins

Fruit, vegetables, cereals

8. What is the function of the saliva?

To break down carbohydrates using the enzyme amylase

9. Which organ produces bile?

The liver

10. How is the small intestine adapted to its function?

Villi increase the surface area, thin walls and good blood supply

11. How is food broken down during digestion?

Mechanically and chemically

Food and Nutrition - multiple choice

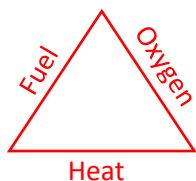
1. A
2. C
3. B
4. D
5. A
6. C
7. A
8. B

Week 2 Chemistry Combustion

Support <https://www.bbc.co.uk/bitesize/topics/zypsgk7/articles/zcwxcj6>

Combustion

1. What does Combustion mean?
The reaction of a substance with Oxygen to produce energy.
2. Which gas in air is used up when combustion takes place?
Oxygen
3. Which types of energy are released when combustions takes place?
Heat and Light
4. What two chemicals are made during the combustion of Methane?
Carbon Dioxide and water
5. Write the word equation for the combustion of Methane.
Methane + Oxygen → Carbon Dioxide + water
6. What could you use the combustion of Methane for?
Heating food, or heating water in your house
7. What is the chemical formula of Carbon Dioxide?
CO₂
8. What is the chemical formula of Water?
H₂O
9. Find what the fire triangle looks like.



10. What safety rules would you have to follow if you were doing a combustion reaction in school?
Wear safety goggles, tie long hair back, tuck in loose clothing (tie), stand up.

Combustion multiple choice

- 1 B
- 2 D
- 3 A
- 4 B
- 5 D
- 6 C
- 7 B
- 8 D
- 9 C
- 10 D
- 11 D

Week 3 Physics Fluids

Support

<https://www.bbc.co.uk/bitesize/topics/z9r4jxs/articles/zqp7p3>

<https://www.bbc.co.uk/bitesize/guides/zc9q7ty/revision/1> (You will need to read all 8 pages)

<https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zv6kw6f>

Fluids

1. What are the three states of matter called?

Solids, gases and liquids

2. What name is given to the change which takes place when a solid becomes a liquid?

Melting

3. What does the word condensation mean?

Changing from a gas to a liquid

4. What are the two main differences between the particles when solid and liquid?

Movement and organisation

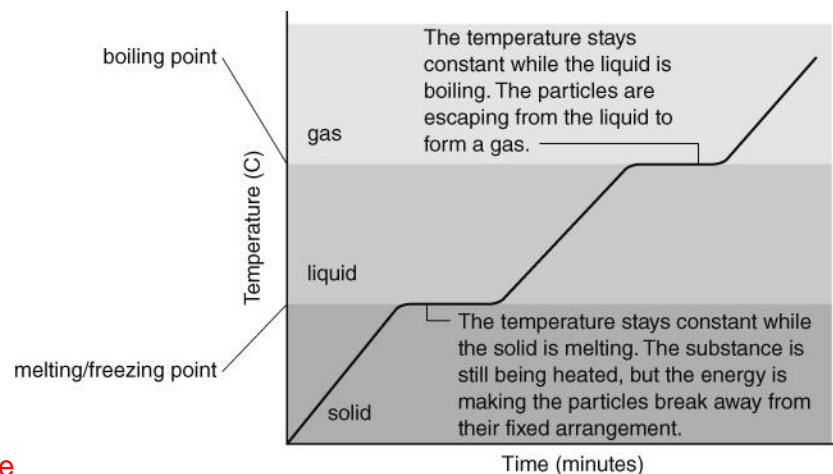
5. Particles in which state have the most energy?

Gas

6. Particles in which state are closest together?

Solid

7. What name is given to a graph that looks like this?



Cooling curve

8. What word describes the reason why some objects float on water while others sink?

Density

9. If a gas in a container is heated, what happens to the pressure and why?

Increases as the particles have more energy, so move faster so collide with the walls of the container more often.

Fluids - multiple choice

1. C
2. B
3. A
4. B
5. C
6. D
7. D
8. D
9. B