

YEAR 8 SCIENCE

Assessment Booklet

Autumn Term



Name: _____

Teacher: _____

Classroom: _____

Expectations

Practical Reports

- Completed in blue or black ink
- All margins, tables & label lines are ruled
- All headings and subheadings are underlined
- Diagrams are scientifically drawn in pencil
- All components of the report are present: title, date, aim, hypothesis, materials, diagram, method, results, questions, conclusion
- All graphs drawn on graph paper in pencil and with a ruler
- Writing is legible
- Checked by a peer

Workbook

- Have feedback booklets inside cover
- All work to have a clear title & date (both underlined with a ruler)
- The margin will be used for question numbers/letters
- All writing will start next to the margin with correct use of capital letter and punctuation
- All writing in blue or black ink
- All writing will be legible and of an appropriate size
- All diagrams, tables and drawings to be completed with a pencil and a ruler
- All errors to be crossed out with a single line, no correction fluid to be used
- Do not tear pages from your book
- Each piece of work to be ruled off before starting next piece of work
- All feed forward to be completed in purple and self-correction in red
- Word processed work should be named and typed in Ariel size 12 font, size 14 for headings

Equipment

- Blue or black pen
- Red Pen
- Pencil
- Ruler
- Rubber
- Calculator
- Glue
- Scissors

Contents

8A – FOOD & NUTRITION	1
Revision Checklist	1
Feedback	2
8E – COMBUSTION.....	3
Revision Checklist	3
Feedback	4
8F – THE PERIODIC TABLE.....	5
Revision Checklist	5
Feedback	6
8I – FLUIDS.....	7
Revision Checklist	7
Feedback	8
Progress Flight Path	9

8A – FOOD & NUTRITION

Revision Checklist

8Aa Nutrients

1. Recall why we need food.
2. Recall the nutrients we need in our diets.
3. Describe why our bodies need fibre and water.
4. Interpret food information labels.
5. Recall the tests used to detect some nutrients.

8Ab Uses of Nutrients

6. Recall some good sources of the different nutrients and fibre.
7. Describe how factors change the amount of energy we need from food.
8. Describe what our bodies use the different nutrients for.

8Ac Balanced Diets

9. Describe the benefits of a balanced diet.
10. Explain how different types of malnutrition are caused and their effects.
11. Interpret Reference Intake (RI) information.

8Ad Digestion

12. Identify and recall the main organs in the human digestive system.
13. Describe the functions of the organs in the digestive system.
14. Explain how food is moved through the digestive system.
15. Describe how enzymes work as catalysts in digestion.
16. Recall some benefits and drawbacks of bacteria in the digestive system.

8Ae Working Scientifically – Surface Area

17. Recall what happens in respiration.
18. Explain how diffusion occurs in terms of movement of particles.
19. Explain how diffusion allows absorption by the small intestine.
20. Explain how the small intestine is adapted to its function.

8Ae Absorption

21. Calculate surface areas of rectangles and cuboids.
 22. Explain the importance of surface area in science (e.g. in absorption).
-

8A – FOOD & NUTRITION

Feedback

Mark

Pearson Step

Below Expected Progress / Making Expected Progress / Above Expected Progress

Teacher Feedback

Student Feedback

WWW:

EBI/
Target:

8E – COMBUSTION

Revision Checklist

8Ea Burning Fuels

1. State the meaning of fuel and combustion.
2. Describe the reactants and products in the combustion of hydrocarbons.
3. Name the fuel used in a fuel cell.
4. Describe the tests for carbon dioxide and water.
5. Write word equations to model reactions.

8Eb Oxidation

6. State the meaning of oxidation.
7. Describe the reactions of metals with oxygen.
8. Identify reactants and products of oxidation using word equations
9. State what happens to mass in a chemical reaction.
10. Explain changes in mass seen in reactions
11. Compare and contrast the oxygen and phlogiston theories.

8Ec Fire Safety

12. Name the three sides of a fire triangle and recognise hazard symbols.
13. Describe what is meant by an exothermic change.
14. Explain why different types of fire need to be put out in different ways.
15. Evaluate data on burning fuels.

8Ec Working Scientifically – Fair Testing

16. Identify variables that need to be controlled in an experiment.
17. Plan ways in which to control variables in an experiment.

8Ed Air Pollution

18. Recall examples of pollutants formed by burning fossil fuels.
19. Describe the reactions of non-metals with oxygen.
20. Explain the products of complete and incomplete combustion of fossil fuels.
21. Explain how sulfur dioxide and nitrogen can cause acid rain.
22. Explain how pollution from fossil fuel combustion can be reduced.
23. Evaluate measures for reducing pollution from fossil fuel combustion.

8Ee Global Warming

24. State the meaning of greenhouse effect, global warming and climate change.
 25. Explain how human activities are affecting global warming.
 26. Explain how methods of controlling carbon dioxide emissions work.
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8E – COMBUSTION

Feedback

Mark

Pearson Step

Below Expected Progress / Making Expected Progress / Above Expected Progress

Teacher Feedback

Student Feedback

WWW:

EBI/
Target:

8F – THE PERIODIC TABLE

Revision Checklist

8Fa Dalton's Atomic Model

1. Write and identify the chemical symbols for elements.
2. Describe Dalton's ideas on atoms, molecules, elements and compounds.
3. Write word equations for simple and complex chemical reactions.
4. Describe elements using physical properties.

8Fb Chemical Properties

5. Explain the difference between physical and chemical changes and properties.
6. Use observations to decide whether a chemical reaction has taken place.
7. Write and interpret chemical formulae for compounds.
8. Explain what happens during chemical reactions using atomic theory.
9. Carry out calculations involving the masses of reactants and products.

8Fc Mendeleev's Table

10. Use the periodic table to find symbols and elements with similar properties.
11. Identify alkali metals, halogens and noble gases in the periodic table and describe their typical properties.
12. Describe how Mendeleev arranged the elements in the periodic table and made predictions about elements.
13. Describe how the modern periodic table is arranged.

8Fc Working Scientifically – Anomalous Results

14. Explain what is meant by an anomalous result (outlier).
15. Identify anomalous results and the range of readings in data.
16. Suggest scientific reasons for anomalous results (outliers).

8Fd Physical Trends

17. State what happens at the melting/freezing/boiling point of a substance.
18. Use melting, freezing and boiling points to predict state.
19. Identify metals and non-metals by their properties and position in the periodic table.
20. Describe and identify trends in physical properties in the periodic table.

8Fe Chemical Trends

21. Describe the reactions of metals and non-metals with oxygen and water.
22. Compare the properties of metal and non-metal oxides.
23. Identify trends in chemical properties within a group.
24. Make predictions about chemical properties and reactivity in a group.

8F – THE PERIODIC TABLE

Feedback

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81 – FLUIDS

Revision Checklist

81a The Particle Model

1. Describe the properties of the three states of matter and explain them using ideas about particles.
2. Describe how particles move in solids, liquids and gases, how this changes with temperature and what effects this has.
3. Explain what density is.

81a Working Scientifically – Calculations With Density

4. Use a formula to calculate density.
5. Use the particle model to explain density changes at different temperatures.
6. Describe how to measure the volume of regular and irregular objects.

81b Changing State

7. Explain how chemical changes are different to physical changes, and recall some examples of each type.
8. Recall that ice is less dense than water, and why this is unusual.
9. Describe what happens to particles during changes of state, in terms of energy and bonds, and explain latent heat.

81c Pressure in Fluids

10. Use the particle model to describe the causes of pressure in fluids.
11. Explain why pressure in a fluid increases with depth.
12. Explain some effects caused by fluid pressure using ideas about forces.
13. Use the particle model to explain why gas pressure changes with temperature, number of particles and volume.

81d Floating & Sinking

14. Use the idea of upthrust to explain why an object does or does not float.
15. Recall the factors that affect the amount of upthrust on an object.
16. Use ideas about density changes to explain how a hot air balloon flies or how the depth of a submarine is controlled.

81e Drag

17. Describe the ways in which the size of drag forces can be changed.
 18. Describe the causes of air and water resistance.
 19. Explain why a vehicle needs a force from the engine to keep moving at a constant speed.
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81 – FLUIDS

Feedback

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Progress Flight Path

