

SCIENCE YEAR 8 - TERM 1.1



I ANALYSE

(Interpreting data, comparing, explaining relationships)

1. I can describe how microbes cause communicable diseases.
2. I can compare different types of pathogens and their effects.
3. I can identify changes in particle arrangement during ion formation.
4. I can distinguish between ionic and covalent bonding using examples.
5. I can interpret evidence from case studies like cholera outbreaks.



I PRACTICE

(Hands-on tasks and investigative work)

1. I can conduct a practical to investigate the spread of microorganisms.
2. I can perform experiments to compare melting points of substances.
3. I can use lab equipment to test conductivity of ionic and covalent compounds.
4. I can model atoms and ions using dot-and-cross diagrams.
5. I can practice interpreting and presenting data from practicals.



I EVALUATE

(Making judgments, reviewing effectiveness, using evidence)

1. I can assess the effectiveness of antibiotics and vaccines in disease control.
2. I can evaluate results from bonding experiments and identify sources of error.
3. I can compare the reactivity of different metal and non-metal ions.
4. I can reflect on the strengths and limitations of different bonding models.
5. I can judge the reliability of scientific methods used in disease research.



I APPLY

(Using formulas, applying knowledge in new situations)

1. I can classify microbes based on structure and effects on health.
2. I can apply understanding of electron transfer to predict ion formation.
3. I can match common elements to the type of bonding they undergo.
4. I can use particle models to explain how bonding affects properties.
5. I can relate the spread of disease to public health strategies.

I READ

BBC Bitesize – [Diseases](#), [Structure and Bonding](#), [Scientific Skills](#)

Scientific Literacy - Beyond Science

I LEARN

BIOLOGY - MICROBES AND COMMUNICABLE

DISEASES

1. Microbes
2. Communicable diseases
3. Stopping pathogens
4. Treating communicable diseases and antibiotics

CHEMISTRY - ATOMS INTO IONS

TYPES OF BONDING

1. Atoms, Isotopes, Ions
2. Ionic bonding
3. Covalent bonding
4. Giant covalent Structures
5. Metallic bonding

SCIENTIFIC
SKILLS

SCIENCE YEAR 8 - TERM 1.2



I ANALYSE

(Interpreting data, comparing, explaining relationships)

1. I can differentiate between series and parallel circuits and their effects on current and voltage.
2. I can analyse the role of different nutrients in a balanced diet.
3. I can interpret diagrams of electric circuits using symbols correctly.
4. I can compare energy values of different food types based on data.
5. I can identify the functions of major organs in the digestive system.



I PRACTICE

(Hands-on tasks and investigative work)

1. I can build series and parallel circuits using electrical components.
2. I can conduct food tests for starch, sugar, protein, and fat.
3. I can carry out practicals to measure energy content in food.
4. I can record current and voltage measurements using ammeters and voltmeters.
5. I can use diagrams to describe the digestive process step by step.



I EVALUATE

(Making judgments, reviewing effectiveness, using evidence)

1. I can evaluate the efficiency of different circuit setups for household use.
2. I can judge the nutritional value of different meals.
3. I can review practical methods used in energy-in-food investigations.
4. I can critique common misconceptions about diet and digestion.
5. I can reflect on experimental techniques used in electric circuit investigations.



I APPLY

(Using formulas, applying knowledge in new situations)

1. I can use circuit rules to calculate current and voltage in series and parallel setups.
2. I can apply knowledge of food groups to design a balanced meal plan.
3. I can label parts of a circuit and digestive system accurately.
4. I can construct circuit diagrams using correct symbols.
5. I can explain the energy transformation in the digestion process.

I READ

BBC Bitesize – [Electricity](#), [Nutrition and Digestion](#), [Scientific Skills](#)

Scientific Literacy—Beyond Science

I LEARN

PHYSICS - ELECTRICITY

1. Circuit symbols and safety with electricity
2. Current and voltage
3. Series and Parallel Circuits
4. Measuring electrical components
5. Conductors and Insulators

BIOLOGY - NUTRITION AND
DIGESTION

1. Nutrition and energy
2. The digestive System
3. More about digestion
4. Absorption
5. Enzymes

SCIENTIFIC SKILLS