

Subject Science

Yr 7 Autumn Term 1

Time of Assessment
WK 9

Knowledge to be Assessed:

7A Cells:

Organs and their functions.
How to use a microscope
Preparing cell slides
Structure of Plant and animal cells
Specialised cells
Basic cell division
Organ systems
Water loss by leaves

7E Acids and Alkalis:

What are Acid and Alkalis?
What is a Hazard
Indicators
Neutralisation

7I Energy:

Energy and Fuels
Bunsen burners
Fossil Fuels
Other Energy resources
Solar Energy
Energy in food

Where does energy come from?



Skills to be assessed

Working scientifically

Through the content across all three disciplines, pupils will be taught to:

Scientific attitudes

- Pay attention to objectivity and concern for accuracy, precision, repeatability, and reproducibility
- Understand that scientific methods and theories develop as earlier explanations are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review
- evaluate risks.

Resources to help Revision:

-Students should check their [Science TEAM](#)

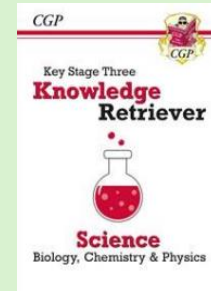
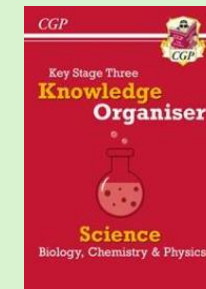
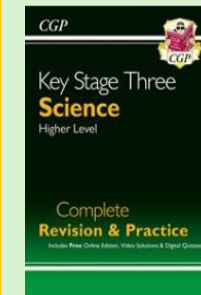
-Also click on links below:

[KS3 Biology BBC Bitesize](#)

[KS3 Chemistry BBC Bitesize](#)

[KS3 Physics BBC Bitesize](#)

-CGP KS3 Science revision books can be purchased at any good online bookstore.



Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
Student show a basic science knowledge. Students demonstrate an understanding of less than 25% of content.	Students show partial science knowledge. Students demonstrate an understanding between 25% and 40% of the content.	Students show secure science knowledge. Students demonstrate an understanding of between 40% and 60% of the content.	Students show very good Science knowledge. Students demonstrate an understanding of between 60% and 75% of the content.	Students show comprehensive science knowledge. Students demonstrate an understanding of more than 75% of content.

Subject Science

Yr 7 Spring Term 1

Time of Assessment
WK 17/18

Knowledge to be Assessed:

7B Reproduction:

Different types of reproduction
Internal & External Fertilisation
Human reproduction
Pregnancy
Giving birth
Life Cycle - Adolescence

7G Solids, Liquids & Gases

What is a theory
Particle theory
Diffusion
Recycling materials
7J Electricity
Types of Circuits
Conduction & Insulators
Electric currents
Resistance
Energy & Voltage
Electrical Safety & Fuses



Skills to be assessed

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 - evaluate risks.

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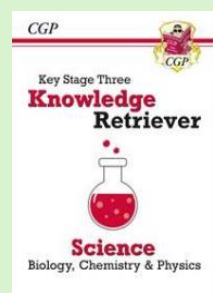
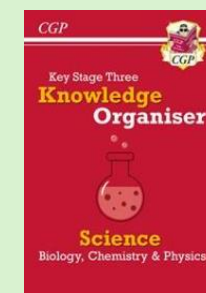
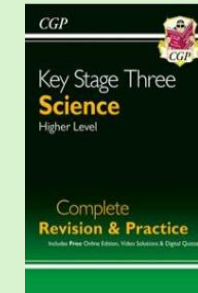
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Subject Science

Yr 7 Summer Term 1

Time of Assessment
WK 25

Knowledge to be Assessed:

7D Classification:

Variation in animal & Plants

Causes of variation

Classifying living things

7F Chemical reactions:

Types of chemical reactions

Causes of chemical reactions

Collecting gases

Testing for gases

Combustion

7K Forces:

Forces in action

Mass v Weight

Balanced and unbalanced forces

Floating and sinking

Friction

Speed - distance-time graphs



Skills to be assessed

Working scientifically

Through the content across all three disciplines, pupils will be taught to:

Scientific attitudes

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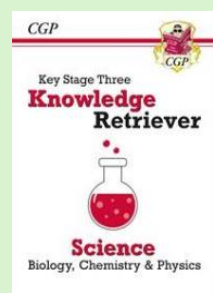
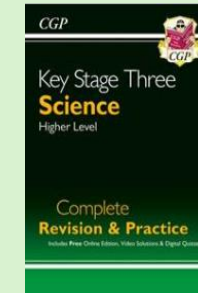
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Subject Science

Yr 8 Autumn Term 1

Time of Assessment
Wk 8

Knowledge to be Assessed:

8A Food and Digestion
Food labels
Food Tests
Balanced Diet
Diabetes
Digestive system
Digestion & absorption
 8F Atoms and Elements
Material
Elements
Periodic Table
Naming compounds
Recycling materials
 8J Forces & Magnetism
Drag and Streamlining
Pressure
Magnets
Electromagnets



Skills to be assessed:

- Working scientifically
 Through the content across all three disciplines, pupils will be taught to:
Scientific attitudes
- Pay attention to objectivity and concern for accuracy, precision, repeatability, and reproducibility
 - Understand that scientific methods and theories develop as earlier explanations are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review
 - Analysis and evaluation skills
 - present observations and data using appropriate methods, including tables and graphs

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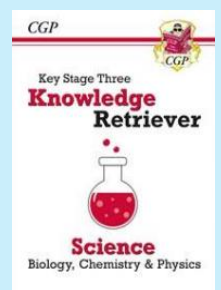
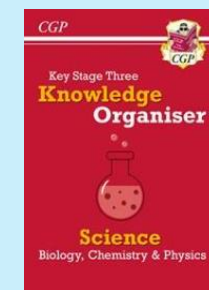
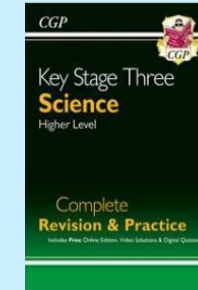
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Subject Science

Yr 8 Autumn Term 1

Time of Assessment
WK 14

Knowledge to be Assessed:

8B Respiration
Food & Oxygen
Burning
Circulatory system
Aerobic & anaerobic respiration
Gas exchange
Structure of Lungs
8G Metals
Metals & non-metals
Properties of metals
Physical and Chemical reactions
Mixtures and compounds
Alloys
8K Light
Light spectrum
Speed of Light
Reflection
Lenses
Refraction
Transmitting Colour



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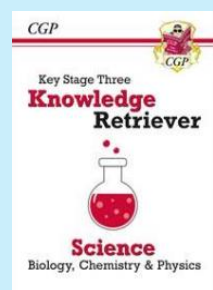
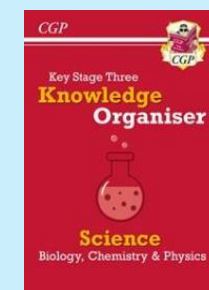
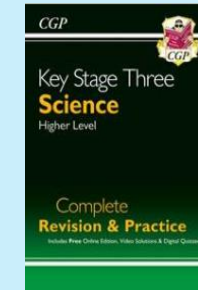
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Subject Science

Yr 8 Summer Term 1

Time of Assessment
WK 22

Knowledge to be Assessed:

8C Microbes and Disease

Types of microbes

Useful Microbes

Growing bacteria

Pathogens

Spread of disease

Vaccines

Antibiotics

8H Rocks

Sedimentary rocks

Igneous rocks

Crystal size

Density of minerals

Metamorphic rocks

Rock cycle

8I Energy & Electricity

Energy Transfer Diagrams

Energy Resources

Current and Voltage

What is Electricity

Power Appliances



Skills to be assessed:

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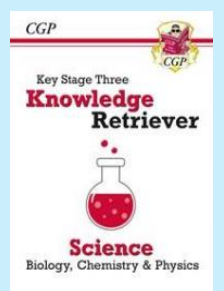
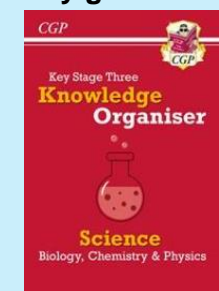
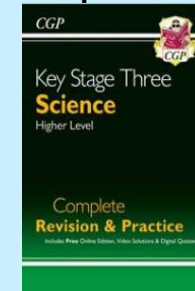
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Subject
Science – Biology

Yr 9
Autumn Term 1

Time of Assessment
Rotation 1 – Date TBC

Knowledge to be Assessed:

- CB1** Key Concepts in Biology (Paper 1 and Paper 2)
- CB1a** Microscopes
- CB1b** Plant and animal cells
- CB1b** Core practical – Using microscopes
- CB1c** Specialised cells
- CB1d** Inside bacteria
- CB1e** Enzymes and nutrition
- CB1f** Enzyme action
- CB1g** Enzyme activity
- CB1g** Core practical – pH and enzymes
- CB1h** Transporting substances
- CB1h** Core practical – Osmosis in potato slices

The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

Please also see the detailed revision list in the 'Skills' section



Skills to be assessed:

There us a detailed revision list for this unit here: <https://tinyurl.com/hkn2f6z6>

Resources to help Revision:

There are detailed notes, videos and 'test yourself' interactives from BBC Bitesize at these links:

<https://www.bbc.co.uk/bitesize/topics/zy9ww6f>

Students should also check the **MS Team** for their individual class. Additionally, they have access to the **Active Learn** platform where they can use an electronic copy of the course textbook

Revision guides are also available to purchase through school

Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
Student show a basic science knowledge. Students demonstrate an understanding of less than 24% of content.	Students show partial science knowledge. Students demonstrate an understanding between 25% and 39% of the content.	Students show secure science knowledge. Students demonstrate an understanding of between 40% and 62% of the content.	Students show very good Science knowledge. Students demonstrate an understanding of between 63% and 84% of the content.	Students show comprehensive science knowledge. Students demonstrate an understanding of more than 85% of content.

**Subject
Science – Biology**

**Yr 9
Spring Term 1**

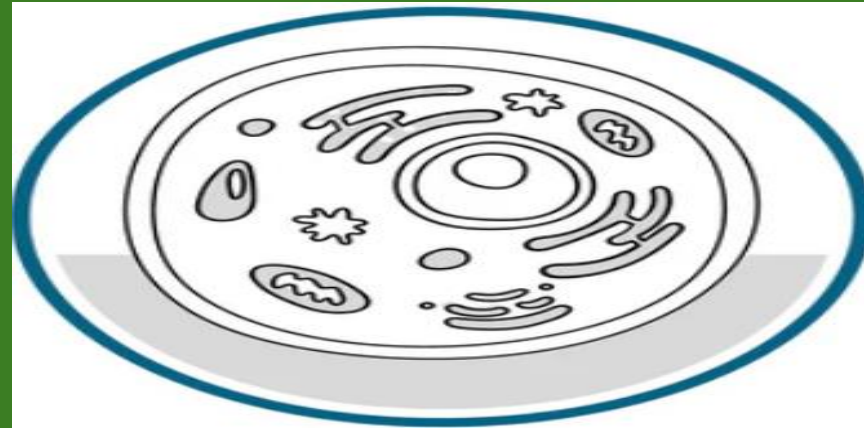
**Time of Assessment
Rotation 2 – Date TBC**

Knowledge to be Assessed:

CB2	Cells and Control (Paper 1)
CB2a	Mitosis
CB2b	Growth in animals
CB2c	Growth in plants
CB2d	Stem cells
CB2e	The nervous system
CB2f	Neurotransmission speeds
CB2	Preparing for your exams
CB3	Genetics (Paper 1)
CB3a	Meiosis
CB3bi	DNA
CB3bii	DNA extraction
CB3c	Alleles
CB3d	Inheritance
CB3e	Gene mutation
CB3f	Variation

The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

Please also see the detailed revision list in the 'Skills' section



Skills to be assessed:

B2 Detailed Revision Checklist
<https://tinyurl.com/2s4h286n>

B3 Detailed Revision Checklist
<https://tinyurl.com/yd2r3btt>

Resources to help Revision:

There are detailed notes, videos and 'test yourself' interactives from BBC Bitesize at these links:

<https://www.bbc.co.uk/bitesize/topics/zpg997h>

<https://www.bbc.co.uk/bitesize/topics/zxyggdm>

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Revision guides are also available to purchase through school

Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
Student show a basic science knowledge. Students demonstrate an understanding of less than 19% of content.	Students show partial science knowledge. Students demonstrate an understanding between 20% and 30% of the content.	Students show secure science knowledge. Students demonstrate an understanding of between 31% and 51% of the content.	Students show very good Science knowledge. Students demonstrate an understanding of between 52% and 84% of the content.	Students show comprehensive science knowledge. Students demonstrate an understanding of more than 85% of content.

Subject
Science – Chemistry

Yr 9
Autumn Term 1

Time of Assessment
Rotation 1 – Date TBC

Knowledge to be Assessed:

CC1	States of Matter
CC2	Methods of Separating and Purifying Substances (Paper 3)
CC1a	States of matter
CC2a	Mixtures
CC2b	Filtration and crystallisation
CC2c	Paper chromatography
CC2d	Distillation
CC2d	Core practical – Investigating inks
CC2e	Drinking water

The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

Please also see the detailed revision list in the 'Skills' section



Skills to be assessed:

CC1/CC2 Detailed Revision Checklist
<https://tinyurl.com/39uyren4>

Resources to help Revision:

There are detailed notes, videos and 'test yourself' activities from BBC Bitesize at these links:

States of Matter and Mixtures

<https://www.bbc.co.uk/bitesize/topics/z9766yc>

This link provides sample exam questions with answers and explanations:

<https://www.bbc.co.uk/bitesize/guides/z33smsg/revision/1>

Students can access lesson slides and further revision material through **MS Teams**. Additionally, they have access to the **Active Learn** platform where they can use an electronic copy of the course textbook

Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
Student show a basic science knowledge. Students score 1-7 marks out of 35.	Students show partial science knowledge. Students score 8-11 marks out of 35.	Students show secure science knowledge. Students score 12-19 marks out of 35.	Students show very good Science knowledge. Students score 20-26 marks out of 35.	Students show comprehensive science knowledge. Students score more than 27 marks out of 35.

Subject
Science – Chemistry

Yr 9
Autumn Term 1

Time of Assessment
Rotation 2 – Date TBC

Knowledge to be Assessed:

CC3	Atomic Structure (Paper 3 and Paper 4)
CC3a	Structure of an atom
CC3b	Atomic number and mass number
CC3c	Isotopes
CC4	The Periodic Table (Paper 3 and Paper 4)
CC4a	Elements and the periodic table
CC4b	Atomic number and the periodic table
CC4c	Electronic configurations and the periodic table

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CC3 Detailed Revision Checklist

<https://tinyurl.com/2z76b2nc>

CC4 Detailed Revision Checklist

<https://tinyurl.com/d5y6ajhz>

Resources to help Revision:

There are detailed notes, videos and 'test yourself' activities from BBC Bitesize at these links:

Atomic Structure

<https://www.bbc.co.uk/bitesize/guides/zqgm8mn/revision/1>

The Periodic Table

<https://www.bbc.co.uk/bitesize/guides/z36cfcw/revision/1>

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Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
Student show a basic science knowledge. Students score 1-8 marks out of 35.	Students show partial science knowledge. Students score 9-12 marks out of 35.	Students show secure science knowledge. Students score 13-20 marks out of 35.	Students show very good Science knowledge. Students score 21-29 marks out of 35.	Students show comprehensive science knowledge. Students score more than 30 marks out of 35.

Subject
Science – Physics

Yr 9
Assessment 1

Time of Assessment:
TBC depending on timetabling rotations

Knowledge to be Assessed:

CP3 Conservation of Energy (Paper 5)

- CP3a Energy stores and transfers
- CP3b Energy efficiency
- CP3c Keeping warm
- CP3d Stored energies
- CP3e Non-renewable resources
- CP3f Renewable resources

The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

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Skills to be assessed:

There us a detailed revision list for this unit here: <https://tinyurl.com/5n7sf4yb>

Resources to help Revision:

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<https://www.bbc.co.uk/bitesize/guides/zxpwrwx/revision/1>

<https://www.bbc.co.uk/bitesize/guides/zsb6w6f/revision/1>

<https://www.bbc.co.uk/bitesize/guides/zty2k2p/revision/1>

This link provides sample exam questions with answers and explanations:

<https://www.bbc.co.uk/bitesize/guides/zmwyy4j/revision/1>

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Grade Descriptors: How the assessment is graded?

Emerging	Developing	Secure	Mastering	Extending
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Subject
Science – Physics

Yr 9
Assessment 2

Time of Assessment:
TBC depending on timetabling rotations

Knowledge to be Assessed:

CP1	Motion (Paper 5)
CP1a	Vectors and scalars
CP1b	Distance/time graphs
CP1c	Acceleration
CP1d	Velocity/time graphs



Skills to be assessed:

There us a detailed revision list for this unit
here: <https://tinyurl.com/2a9xutd8>

Resources to help Revision:

There are detailed notes, videos and 'test yourself' interactives from BBC Bitesize at these links:

<https://www.bbc.co.uk/bitesize/guides/zgcp7p3/revision/1>

<https://www.bbc.co.uk/bitesize/guides/z2x9v9q/revision/1>

This link provides sample exam questions with answers and explanations:

<https://www.bbc.co.uk/bitesize/guides/ztcrsrd/revision/1>

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The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

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**Subject
Science – Physics**

**Yr 9
Assessment 3**

**Time of Assessment:
TBC depending on timetabling rotations**

Knowledge to be Assessed:

CP2	Motion and Forces (Paper 5)
CP2a	Resultant forces
CP2b	Newton's First Law
CP2c	Mass and weight
CP2d	Newton's Second Law
CP2d	Core practical – Investigating acceleration
CP2e	Newton's Third Law
CP2f	Momentum
CP2g	Stopping distances
CP2h	Crash hazards

The BBC Bitesize links in the 'Resources' section provide a breakdown of each of these subtopics

Please also see the detailed revision list in the 'Skills' section



Skills to be assessed:

There us a detailed revision list for this unit here: <https://tinyurl.com/4jnfe4xm>

Resources to help Revision:

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<https://www.bbc.co.uk/bitesize/guides/z3rhqhv/revision/1>

<https://www.bbc.co.uk/bitesize/guides/zg9smg/revision/1>

<https://www.bbc.co.uk/bitesize/guides/zxh2qhv/revision/1>

This link provides sample exam questions with answers and explanations:

<https://www.bbc.co.uk/bitesize/guides/ztcsrcd/revision/1>

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