



EXAM REVISION

YEAR 9 SCIENCE

You can use this document to help with your revision for the science exam. The science exam will include most of the topics you have studied during science lessons in year 9. There will also be some questions from topics you studied in years 7 and 8. You can find all of these topics in the digital textbooks (Activate 1 and Activate 2) on Kerboodle.

Web address for kerboodle: www.kerboodle.com

You will need your username and password. The institution code is: dri7

If you need help logging into kerboodle, please ask your science teacher.

Revision top tips

- Start early.
- Do a small amount at a time (1/2 hour every day).
- **Make revision cards or notes.**
- **Define key terms.**
- Write out revision questions and answers.
- Use colour and diagrams.
- **Ask your science teachers if you need help.**
- Try some practice questions (you can find revision questions at the end of each chapter in the digital textbook).

Biology

Ecosystem Processes (Activate 2)

- Photosynthesis

- Leaves
- Plant minerals
- Respiration (Aerobic and anaerobic)
- Food chains and webs
- Ecosystems

Structure and function of body systems (Activate 1)

- Levels of organisation
- Gas exchange
- Breathing
- Skeleton
- Movement: joints and muscles

Health and Lifestyle (Activate 2)

- Nutrients
- Food tests
- Unhealthy diet

- Digestive system
- Bacteria and enzymes in digestion
- Drugs, alcohol and smoking

Chemistry

Metals and acids (Activate 2)

- Acids and metals
- Metals and oxygen
- Metals and water
- Metal displacement reactions
- Extracting metals
- Ceramics, polymers and composites

Elements and Atoms (Activate 1)

- Elements
- Atoms

- Compounds
- Chemical formulae

Acids and Alkalis (Activate 1)

- Acids and alkalis
- Indicators and pH
- Neutralisation
- Making salts

The Periodic table (Activate 2)

- Metals and non-metals
- Groups and periods
- The elements of group 1
- The elements of group 7
- The elements of group 0

Physics

Electricity and Magnetism (Activate 2)

- Charging up
- Circuits and current
- Potential difference
- Series and parallel
- Resistance
- Magnets and magnetic fields
- Electromagnets
- Using electromagnets

Light (Activate 1)

- Light
- Reflection
- Refraction
- The eye and the camera

- Colour

Forces (Activate 1)

- Squashing and stretching
- Drag forces and friction
- Forces at a distance
- Balanced and unbalanced

Sound (Activate 1)

- Waves
- Sound and energy transfer
- Loudness and pitch
- Detecting sound

- Echoes and ultrasound

Energy (Activate 2)

- Food and fuels
- Energy adds up
- Energy and temperature
- Energy transfer: Particles and radiation
- Energy resources
- Energy and power
- Work, energy and machines

Working scientifically

(Activate 1)

In the exam, you may also be asked about: asking scientific questions, planning investigations, recording data, analysing data and evaluating data.

Key words you should be familiar with:

- Observations
- Investigations
- Data
- Variable

- Independent variable
- Dependent variable
- Control variables
- Prediction
- Plan
- Accurate
- Precise
- Spread
- Uncertainty
- Repeatable
- Reproducible
- Continuous
- Discrete
- Categorical
- Range
- Risk assessment
- Outlier

- Mean
- Line graph
- Bar chart
- Pie chart
- Analyse
- Line of best fit
- Conclusion
- Evaluate
- Confidence
- Random error
- Systematic error