

Science - Revision Spring



HOLMWOOD HOUSE
SCHOOL

Your assessments in March will be split into three papers; Biology, Chemistry and Physics.

The questions in these papers will cover topics you have covered in year 6 & 7, as well as what you have learned this year.

Please use this document to help direct your revision.

- *Be honest with revision - Do not keep revising the photosynthesis equation if you already know it.*
- *Revise the aspects you struggle with.*
- *Re-reading a textbook again and again is not revision. Test yourself using various formats and question styles.*

Pupils can ask or email for advice.

- **There is a revision grid on Google Classroom to use to sign off when you have covered a topic.**
- **Useful sites and apps are;**
 - www.focuselearning.co.uk/u/33297/tltiopirlubDrognerBDlcmsaupFxDnki (Login details - student@holmwoodhouse24137 password - Holmwood456)
 - <http://www.thesciencesite.co.uk/>

Good luck

Useful equations

- Density
- Pressure
- Speed
- Moments
- Photosynthesis
- Respiration
- Neutralization reactions (Acid + Alkali)
- Products of combustion

Biology Topics

Cells and Organisation <https://www.bbc.co.uk/bitesize/topics/znnycdm>

- Structure of animals and plant cells
- Role of specific organelles (Cytoplasm, Nucleus etc)

Humans (Biology)

- Breathing (mechanical) <https://www.bbc.co.uk/bitesize/topics/zvrrd2p>
- Structure of the respiratory system
- Mechanism of breathing
- Circulation (Structure of the heart)
- Negative effective of smoking
- Nutrition <https://www.bbc.co.uk/bitesize/topics/zf339j6>,
<https://www.bbc.co.uk/bitesize/topics/ztnnb9q>
- Respiration

Green Plants (Biology) <https://www.bbc.co.uk/bitesize/topics/zvrrd2p>

- Structure of a plant
- Photosynthesis is daytime
- Equation of photosynthesis
- Respiration
- Adaptation of leaves

Ecology (Biology) <https://www.bbc.co.uk/bitesize/topics/zxhhvcw>

- Habitats & sampling techniques
- Ecosystems
- Food chains & webs <https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/1>
- Adaptation
- Variation, Natural selection, Artificial selection & Evolution
<https://www.bbc.co.uk/bitesize/topics/zpffr82>

Chemistry topics

Separating mixtures (Chemistry) [learned this term]

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

- Structures of solids liquids and gases
- Changing state
- Expansion and Contraction
- Diffusion

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- Solubility, included saturated solutions and solubility curves
<https://www.bbc.co.uk/bitesize/guides/z4s48mn/revision/2>
- Separation techniques

Acids and alkalis (Chemistry) <https://www.bbc.co.uk/bitesize/topics/zn6hvcw>

- Universal indicator paper
- PH scale
- Example of everyday acids and alkalis
- Neutralisation (green)
- Acid + Alkalis = Water - Salt

Tests for: <https://www.bbc.co.uk/bitesize/topics/zypsgk7>

- Oxygen - relights a glowing splint
- CO₂ - Limewater cloudy
- Hydrogen - burning splint make a squeaky pop
- Water - Cobalt chloride paper turns from blue to pink

Atom elements and compounds (Chemistry)

<https://www.bbc.co.uk/bitesize/topics/zstp34j>

- Gases of the air
- Reactivity series <https://www.bbc.co.uk/bitesize/guides/zqwmxnrb/revision/1>

Reactions

- Patterns of behaviour in Group 1 Alkali metals
<https://www.bbc.co.uk/bitesize/clips/zfrtfq8>
- <https://www.bbc.co.uk/bitesize/guides/z8b2k2p/revision/1>
- Rusting
- Oxidation - burning metals in air
- Extraction metals from their ores
- Displacement reactions
- Thermal decomposition

Physics

Energy (Physics) <https://www.bbc.co.uk/bitesize/topics/zc3g87h>

- Seven types

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- Resources, 'renewable resource is something that can be replenished in a human life time'
- Sun source of all other energy resources
- How electricity is generated
- Law of conservation - energy

Light (Physics) <https://www.bbc.co.uk/bitesize/topics/zw982hv>

- Law of reflection
- Law of refraction
- Dispersion

Sound (Physics) <https://www.bbc.co.uk/bitesize/topics/zw982hv>

- Vibrations ,Frequency, Pitch and Amplitude
- Travelling through different mediums

Space (Physics) <https://www.bbc.co.uk/bitesize/topics/z8c9q6f>

- Define day
- Define year
- Explain seasons
- Eclipse
- Mass and weight difference
- Satellites
- Solar system

Electricity (Physics) <https://www.bbc.co.uk/bitesize/topics/zgy39j6>

- The more difficult components
- Series and parallel circuits
- How to measure amps
- Electromagnets and how to make them stronger
<https://www.bbc.co.uk/bitesize/topics/zrvbkqt>
- Benefits of electromagnets

Forces <https://www.bbc.co.uk/bitesize/guides/zttfyrd/revision/1> <https://www.bbc.co.uk/bitesize/topics/z4brd2p>

- Force diagrams
- Speed calculations, distance-time graphs, acceleration
<https://www.bbc.co.uk/bitesize/guides/zwwmxnb/revision/1>
- Air resistance and parachutes
- Pressure calculations, pressure in gases and liquids
- Hooke's Law and stretching
- Moments, calculations and everyday examples