Making the most of revision

Dr DJP Squire, on behalf of KES VI Lichfield, Science department

All resources or products are hyperlinked

- If you see any blue underlined text, right-click and select open hyperlink or launch presentation and click on appropriate text to navigate to resource
- This presentation will be available on Switch/ website or both

Be sure you know what you need to do... And what your priority of needs are.

Specifications

<u>Biology</u>

<u>Chemistry</u>

<u>Physics</u>

Combined Science

Checklists

<u>Kerboodle</u>



Tip

Don't focus your time on the content you find easy. It's easy because you are good at it.

Focussing on the things you find the hardest or are least confident with will have the greatest impact.

—

How you will be tested in the exams:

The Science exams test three main assessment objectives:

AO1: Demonstrate knowledge and understanding of scientific ideas, techniques and procedures (Recall, 40%)

AO2: Apply Knowledge and understanding of scientific ideas, techniques and procedures. (Apply knowledge to a scenario, 40%)

AO3: Analyse information and ideas (interpret, evaluate, make judgements, improve procedures, develop experiments, 20%)

Get organised!

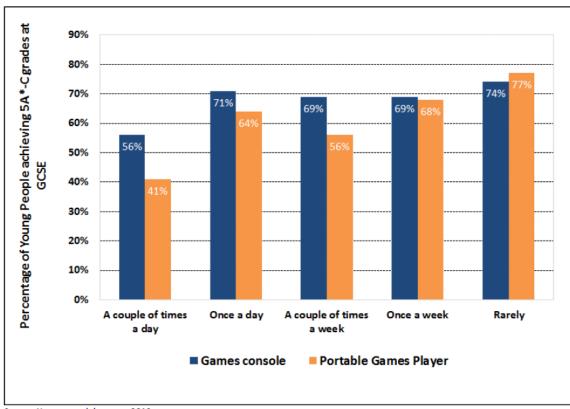
- Creating a revision timetable, with realistic times spent on each subject, will increase productivity.
- If you know you have a regular activity, factor it in to your timetable.
- Be realistic about how much time you will need to spend on a subject.
- STICK TO IT!.. If you share your timetable with others, they will help you stay disciplined



| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-----------|----------------|--------------|---------------------|--------------------|---------|-------------------|-------------|
| 0915-1015 | School day | | | | | | DUODY |
| 1015-1115 | | | | | | English | |
| 1115-1135 | | | | | | English | RUGBY |
| 1135-1235 | School day | | | | | | |
| 1235-1335 | Biology clinic | | MfL Intervention | Maths intervention | | Maths | PE |
| 1335-1435 | | School day | | | Maths | SCIENCE (rota) | |
| 1435-1535 | | | | | | | |
| 1600-1800 | Chemistry | Biology | German | | Physics | | |
| 1800-1900 | | Dinner RUGBY | | | Dinner | | |
| 1900-2100 | English | Geography | Maths | | CHILL | Cinema | Family time |
| 2100-2200 | | Unwind time | | | Cinema | Family time | |

Simple template

Figure 6.4: Relationship between GCSE attainment and usage of gaming devices



Source: Young people's survey 2013.

Base: 268-435

Assess your priorities!

Improving Students' Learning With Effective Learning Techniques

Promising Directions From Cognitive and Educational Psychology John Dunlosky, Katherine A. Rawson, Elizabeth J. Marsh,

https://www.bbc.co.uk/news/heal th-22565912

Mitchell J. Nathan, Daniel T. Willingham

Elaborative interrogation

 Table I. Learning Techniques

Red= low impact

Orange= moderate impact

Green= high impact

Generating an explanation for why an explicitly stated fact or concept is true

study that mixes different kinds of material, within a single study session

Technique Description

| 1. Elaborative interrogation | Generating an explanation for why an explicitly stated fact or concept is true |
|------------------------------|--|
| 2. Self-explanation | Explaining how new information is related to known information, or explaining steps taken |
| · | during problem solving |
| 3. Summarization | Writing summaries (of various lengths) of to-be-learned texts |
| 4. Highlighting/underlining | Marking potentially important portions of to-be-learned materials while reading |
| 5. Keyword mnemonic | Using keywords and mental imagery to associate verbal materials |
| 6. Imagery for text | Attempting to form mental images of text materials while reading or listening |
| 7. Rereading | Restudying text material again after an initial reading |
| 8. Practice testing | Self-testing or taking practice tests over to-be-learned material |
| 9. Distributed practice | Implementing a schedule of practice that spreads out study activities over time |
| 10. Interleaved practice | Implementing a schedule of practice that mixes different kinds of problems, or a schedule of |

Note. See text for a detailed description of each learning technique and relevant examples of their use.



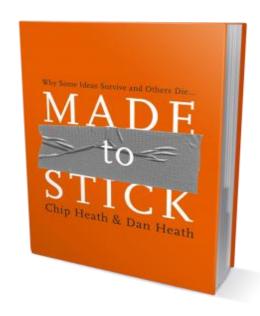
How we learn

http://learningandtheadolescentmind.org/resources 02 learning.html

Adequate and effective revision

Key principles of effective revision:

- Regular and ongoing
- Realistic but disciplined
- Active and varied, interspersed with regular testing and evaluation





1. The basics of leftective revision

→ Get organised

Create and use an effective revision timetable

→ Create effective revision materials

Use the available resources (Kerboodle, CGP guide, Exercise books) to create your testing material

→ Test, test, test!

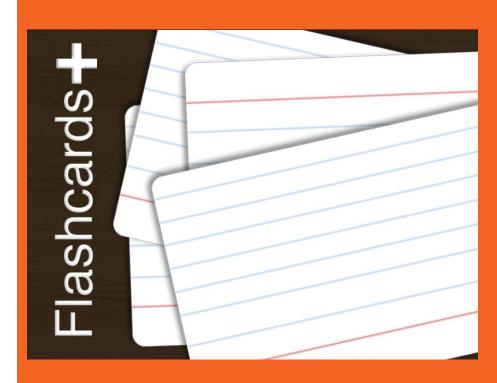
Continuous and repetitive testing, using a variety of strategies/ resources (flash cards*, Seneca, Kerboodle, Past papers)

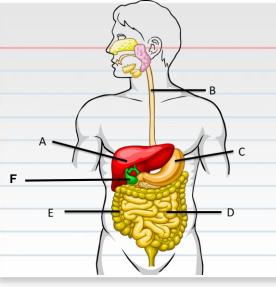
Flashcards

These can be a very useful way of "chunking and memorising" small sections of information.

DON'T FILL THEM WITH TEXT and make sure they can be utilised for testing.

Use someone to test you!





The digestive system

CGP pre-made flash cards.....

| | Part | Name | Function/ adaptation |
|---|------|-----------------|---|
| _ | Α | Liver | Produces Bile, an alkaline fluid that neutralises stomach acid and emulsifies fats |
| | В | Oesophagus | Pushes food from mouth to stomach through waves of peristalsis |
| | С | Stomach | Churns food with acid to increase surface area, kill microorganisms and provide right pH for proteases |
| | D | Small Intestine | Absorbs the small, soluble products of digestion into the bloodstream. Has large surface area (villi/ microvilli) and good blood supply |
| | Е | Large intestine | Absorbs water from faeces |
| | F | Gall bladder | Stores bile to be secreted into s. Intestine |

Glossaries

There is a significant amount of scientific terminology and definitions that the students must memorise.

Creating a glossary of terms and definitions for each module and testing themselves/being tested by others will help retain key vocabulary for use in responses

Movement in and out of cells

| Keyword | Definition/ meaning |
|---------------------|---|
| Partially permeable | A membrane that will allow some substances to pass through but not others (size) |
| Diffusion | The net movement of substances from an area of <u>high concentration</u> to <u>low concentration</u> . |
| Osmosis | The net movement of <u>water</u> from a <u>dilute</u> <u>solution</u> (high water potential) to a <u>concentrated solution</u> (low water potential), through a PP membrane |
| Active transport | The movement of substances from low concentration to high concentration, against the concentration gradient, which requires energy (ATP) and a carrier protein |
| | |
| | |

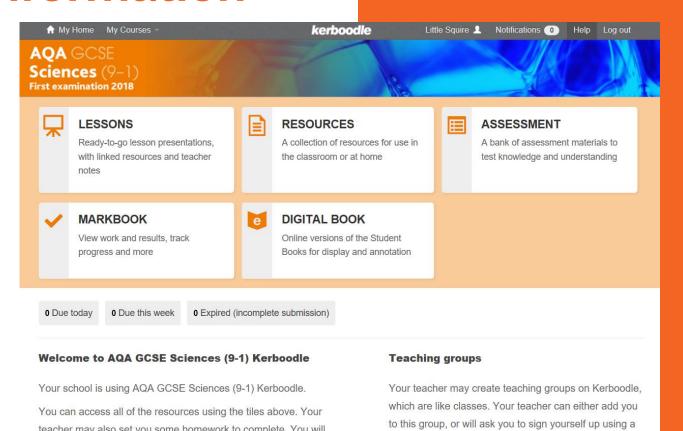
Become the teacher...

The "protégé effect"

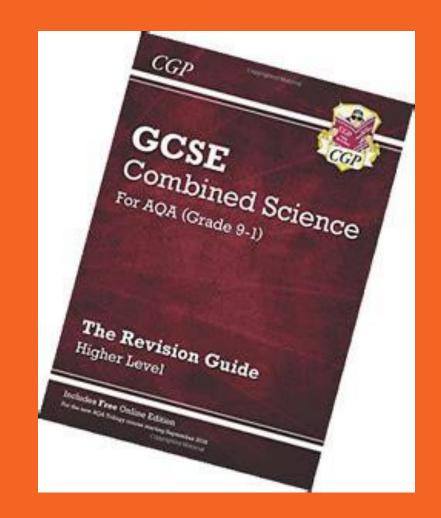


Where to find this information

Kerboodle



Revision guides



Seneca learning

- An online Learning and <u>testing</u> site
- https://impact.chartered.college/article/feddernretrieval-interleaving-spacing-visual-cues-independentlearning/



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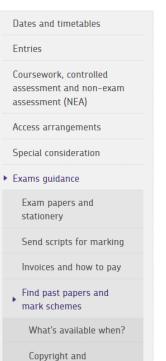
Subjects

Qualifications

Professional development

Exams administration

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exampro assessment

Specimen papers and mark schemes

When new exams are introduced, there are no past papers. We provide specimen papers and mark schemes to help teachers and students prepare for new exams.

Search past paper question banks and easily create custom material for teaching, homework and



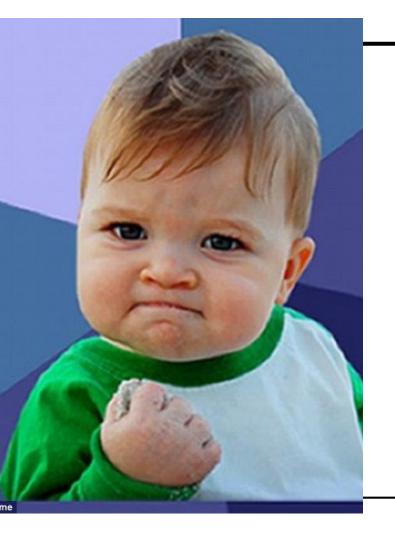
Paper 1 (Foundation): Specimen mark scheme (180.6 KB)

Paper 1 (Foundation): Specimen question paper (666.2 KB).

Past papers

These papers are from the old (Legacy) specification!

ASK!!!



Key messages for successful revision

- Get organised
- Start early and view it as an ongoing process... little and often
- Interleave activities, use variety, keep it active
- TEST, TEST, TEST, TEST!