

Group Weekly Science Masterclasses beginning Sept 2021-May 2022 (Year 11 Combined)

For each weekly group session there will be an online course to follow via the website, which will include around 1hour of pre-recorded video lessons covering the key skills required, a quiz to complete, exam-style questions to try out (with answers), and a 1-hour live interactive group session.

*The dates and times below are of the online group sessions; the work for the week needs to be completed BEFORE the date of the session as the time denoted below is devoted to any problems that arose with the material for the week and checking understanding – the items in the pre-recorded video lessons **will not** be covered again in the live call.*

All group sessions are paid for via the website so that you get direct access to the resources please. If payment is made too close to the live call, you will not have access to the live call – as that will have already occurred. Best advice is to pop onto the site with the student, sort out access to the courses (in their name) for the month all at once, then you only need to remember to do that step once a month.

(All 1-2-1 sessions will continue to be arranged and paid for separately).

Week beginning Thursday: Start here	Year 11 Combined Masterclass Wednesday 6:30-7:30pm
9 Sept	Sept 15: Session 1.01
16 Sept	Sept 22: Session 1.02
23 Sept	Sept 29: Session 1.03
30 Sept	Oct 6: Session 1.04
7 Oct	Oct 13: Session 1.05
14 Oct	Oct 20: Session 1.06
21 Oct	Nov 3: Session 1.07 runs over the half term break
4 Nov	Nov 10: Session 1.08
11 Nov	Nov 17: Session 1.09
18 Nov	Nov 24: Session 1.10
25 Nov	Dec 1: Session 1.11
2 Dec	Dec 8: Session 1.12
9 Dec	Dec 15: Session 1.13
16 Dec	Jan 5: Session 1.14 runs over the Xmas break
6 Jan	Jan 12: Session 1.15
13 Jan	Jan 19: Session 1.16
20 Jan	Jan 26: Session 1.17
27 Jan	Feb 2: Session 1.18
3 Feb	Feb 9: Session 1.19
10 Feb	Feb 23: Session 1.20 runs over the half term break
24 Feb	Mar 2: Session 1.21
3 Mar	Mar 9: Session 1.22
10 Mar	Mar 16: Session 1.23
17 Mar	Mar 23: Session 1.24
24 Mar	Mar 30: Session 1.25
31 Mar	Apr 20: Session 1.26 runs over the Easter break
21 Apr	Apr 27: Session 1.27
28 Apr	May 4: Session 1.28
	Final exams should begin the week of 9 May. Drop-in sessions for specific exam support questions will be at the same times on May 11, May 18, May 25 and June 1. Bring your questions for support, or just arrive to listen to others' questions so that questions do not repeat.

Group Weekly Science Masterclasses beginning Sept 2021-May 2022 (Triple Science)

For each weekly group session there will be an online course to follow via the website, which will include around an hours' work for each Science. There will be pre-recorded video lessons covering the key skills required, a quiz to complete, exam-style questions to try out (with answers), and an optional 1-hour live interactive group session. Once the live session has happened, a post-session recording of any sticking spots will be placed into the zoom call area.

Greyed out sessions have no live Zoom call component and the unit is fully complete without the live zoom.

Please check the schedule carefully: The dates and times below are of the access times when each masterclass opens online to begin study of the pre-recorded classes and the quiz activity; and then also the date of the live zoom masterclass. The work for the week needs to be completed **BEFORE** the date of the Zoom session as the time in the live zoom session denoted below is devoted to any problems that arose with the material for the preceding week and checking understanding – the items in the pre-recorded video lessons **will not** be covered again in the live call.

E.g. **Session 1.01: Access opens: Mon 6 Sept** (students will be able to get into course material from this date). **Zoom: Sun 12 Sept** (date of the optional live help call, should assistance be needed for any of that weeks' materials).

Bio: Cells & Viruses;

Chem: Atoms & Atomic structure;

Phys: Scalars & Vectors.

} The topics covered in this Masterclass session (name listed in red).

All group sessions are paid for via the website so that you get direct access to the resources. Payment must be received a minimum of 5 days before the date of the live session (before the 'Access opens' date is ideal) – as there is work to be done in the week before the live session and a student beginning late is at a disadvantage. The best advice is to pop onto the website with the student, sort out access to the sessions (in their name) for the upcoming month all at once, and then you only need to remember to do that step once a month. (1-2-1 sessions will continue to be arranged and paid for separately).

Masterclass 2.0 Combined – More advanced items; mostly Paper 2 topics

Wednesdays

6:30-7:30pm

Session 2.01:

Access opens: **Thurs 9 Sept**. Zoom: **Weds 15 Sept**.

Bio: Photosynthesis;

Chem: Electrolysis – Molten (Prac);

Phys: The National Grid.

Session 2.02:

Access opens: **Thurs 16 Sept**. Zoom: **Weds 22 Sept**.

Bio: Leaf Structure;

Chem: Electrolysis – Aqueous (Prac);

Phys: Transformers.

Session 2.03:

Access opens: **Thurs 23 Sept**. Zoom: **Weds 29 Sept**.

Bio: Effect of light intensity on photosynthesis (Prac);

Chem: Half Equations;

Phys: Circuit Symbols.

Session 2.04:

Access opens: **Thurs 30 Sept**. Zoom: **Weds 6 Oct**.

Bio: Transpiration and Translocation;

Chem: Extracting metals from ores by electrolysis or by carbon;

Phys: Circuits, calculations and rules of current and voltage.

Session 2.05:

Access opens: **Thurs 7 Oct**. Zoom: **Weds 13 Oct**.

Bio: Human immune system;

Chem: Crude oil and fractional distillation;

Phys: The 5 circuit components and their graphs.

Session 2.06:

Access opens: **Thurs 14 Oct**. Zoom: **Weds 20 Oct**.

Bio: Communicable diseases: bacteria, viruses, fungi and protists;

Chem: Alkanes

Phys: The Plug and power calculations.

Session 2.07:**Access opens: Thurs 21 Oct. Zoom: Weds 3 Nov.**

Bio: Non-communicable diseases: cancer, screening;

Chem: Cracking;

Phys: Earthing and resistance of a wire practical.

Session 2.08:**Access opens: Thurs 4 Nov. Zoom: Weds 10 Nov.**

Bio: Selective Breeding;

Chem: Gas identification: oxygen, carbon dioxide, hydrogen, chlorine, ammonia, test for alkenes;

Phys: Left and right hand rules.

Session 2.09:**Access opens: Thurs 11 Nov. Zoom: Weds 17 Nov.**

Bio: Genetic Engineering;

Chem: Phytomining

Phys: Magnetism, Permanent magnets and electromagnets.

Session 2.10:**Access opens: Thurs 18 Nov. Zoom: Weds 24 Nov.**

Bio: Coronary heart disease and other problems;

Chem: Bioleaching;

Phys: The Particle Model.

Session 2.11:**Access opens: Thurs 25 Nov. Zoom: Weds 1 Dec.**

Bio: Natural Selection;

Chem: Reversible reactions and dynamic equilibrium (Le Chatelier's Principles);

Phys: Atomic structure and isotopes.

Session 2.12:**Access opens: Thurs 2 Dec. Zoom: Weds 8 Dec.**

Bio: Darwin & Lamarck;

Chem: Reactions of Group 1 elements;

Phys: Spring constant and associated calculations.

Session 2.13:**Access opens: Thurs 9 Dec. Zoom: Weds 15 Dec.**

Bio: Evidence for evolution, and extinction; (and Edexcel Human Evolution)

Chem: Reactions of Group 7 elements;

Phys: Elastic potential energy.

Session 2.14:**Access opens: Thurs 16 Dec. Zoom: Weds 5 Jan.**

Bio: Carl Linnaeus, classifications and domains;

Chem: Soluble and insoluble salts;

Phys: Hooke's law (Prac).

Session 2.15:**Access opens: Thurs 6 Jan. Zoom: Weds 12 Jan.**

Bio: Adaptations, interdependence and competition;

Chem: REDOX reactions;

Phys: Specific heat capacity (Prac).

Session 2.16:**Access opens: Thurs 13 Jan. Zoom: 19 Jan.**

Bio: Biotic and abiotic factors;

Chem: Complete and incomplete combustion;

Phys: Specific latent heat.