

Group Weekly Science Masterclasses beginning March 2024-June 2024 (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 summary workbook to help make structured notes, 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 indicate a school holiday or break.

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: Thurs 28 March** (students will be able to get into course material from this date). **Zoom: Weds 17 April** (date of the optional grade 8&9 items for the week).

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 in blocks so that you get direct access to the resources.
(1-2-1 sessions will continue to be arranged and paid for separately).

You MUST get to the end of the materials to access the Zoom link for the live lesson.

Masterclass 1.0 – Basic items; laying foundations and pushing further; mostly paper 1 Topics

Wednesdays

5-6pm

Welcome and introductory session:

Zoom: Weds 27 March.

We will be going through expectations, how to use the system, how to access materials, sorting out any questions, and starting to use the online systems we will use in our lessons and between lessons.

Your parent is welcome to join this session for the first 10 mins to understand their role in what they need to be doing on a daily basis to be help you.

Easter break: The time between this session and the next session will be utilised to get hold of the workbook (from Amazon) and post out the materials required for the first classes.

Introduction to Masterclasses via the system

Access opens: Thurs 28 March. This section is remotely monitored over the Easter break as it is in place to ensure proficiency in using the system and submitting work.

This must be completed before moving on to Session 1.01.

Session 1.01:

Access opens: Thurs 28 March. Zoom: Weds 17 April.

Bio: Cells & Viruses;

Chem: Atoms & Atomic structure;

Phys: Scalars & Vectors, and Physics formulae.

Session 1.02:

Access opens: Thurs 18 April. Zoom: Weds 24 April.

Bio: Microscopy (Prac);

Chem: The Periodic table & its' history (&labels);

Phys: Energy Conservation: Kinetic Energy and Gravitational Potential Energy.

Session 1.03:

Access opens: Thurs 25 April. Zoom: Weds 1 May.

Bio: Enzyme action (Prac) & Enzyme graphs;

Chem: Models of the Atom;

Phys: Velocity-time & Distance-time graphs, and accompanying calculations.

Session 1.04:

Access opens: Thurs 2 May. Zoom: Weds 8 May.

Bio: Transport: diffusion, osmosis & active transport (Prac);

Chem: Reactions of metals and acids to form salts (Prac);

Phys: Momentum and the conservation of momentum.

Session 1.05:

Access opens: Thurs 9 May. Zoom: Weds 15 May.

Bio: Aerobic Respiration (Prac);

Chem: Strong & Weak acids;
Phys: Forces & Resultant Forces.

Session 1.06:

Access opens: Thurs 16 May. Zoom: Weds 22 May.

Bio: Anaerobic Respiration;

Chem: Separating substances: filtration, evaporation, crystallisation, simple distillation, fractional distillation, separating funnel, chromatography;

Phys: Terminal Velocity & falling objects.

Half term from 30 May – 3 June, but the next session will be open before the break.

Calculator skills module must be completed here.

Session 1.07:

Access opens: Thurs 23 May. Zoom: Weds 5 June.

Bio: Surface Area;

Chem: Chromatography and Rf calculations (Prac);

Phys: Newton's three laws of motion.

Session 1.08:

Access opens: Thurs 6 June. Zoom: Weds 12 June.

Bio: Cell division: Mitosis;

Chem: Bonding I: Covalent;

Phys: Acceleration and the trolley practical.

Session 1.09:

Access opens: Thurs 13 June. Zoom: Weds 19 June.

Bio: Cell division: Meiosis;

Chem: Bonding II: Ionic;

Phys: Motion and Forces and stopping distances.

Session 1.10:

Access opens: Thurs 20 June. Zoom: Weds 26 June.

Bio: Stem cells & differentiation;

Chem: Bonding III: Metallic & alloys;

Phys: Energy Efficiency.

Final lesson of the term:

Access opens: Thurs 27 June. Zoom: Weds 3 July.

Exam preparation and skills sessions

Summer break:

We have no Masterclass lessons over the summer (4 July up to the end of August).

After the summer, the lessons for this group will recommence with access to the back end opening on 28 Aug 2024 and the first live lesson on 4 Sept 2024.

Sessions for Sept – Dec 2024 will need to be purchased and put into 'Your Profile' by 1 August 2024.