**Academic Year 2021 – 2022**

**Science Department Curriculum**

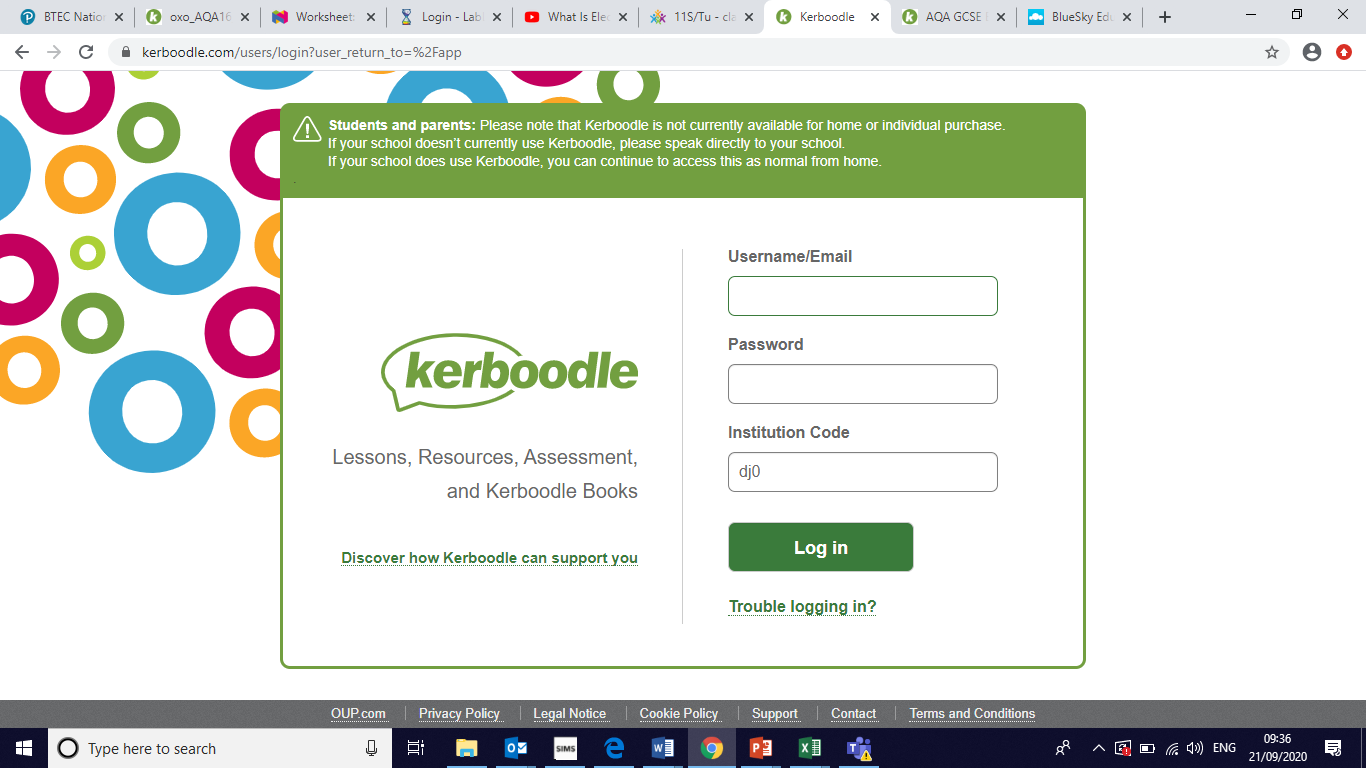
**Remote Learning Plan – Schemes of Learning Overview**

**KS4 Science**

Students will follow the sequence of the online textbook from AQA answering questions as they go. Each lesson they will be assigned a task for the pages used from that lesson.

**Kerboodle:**

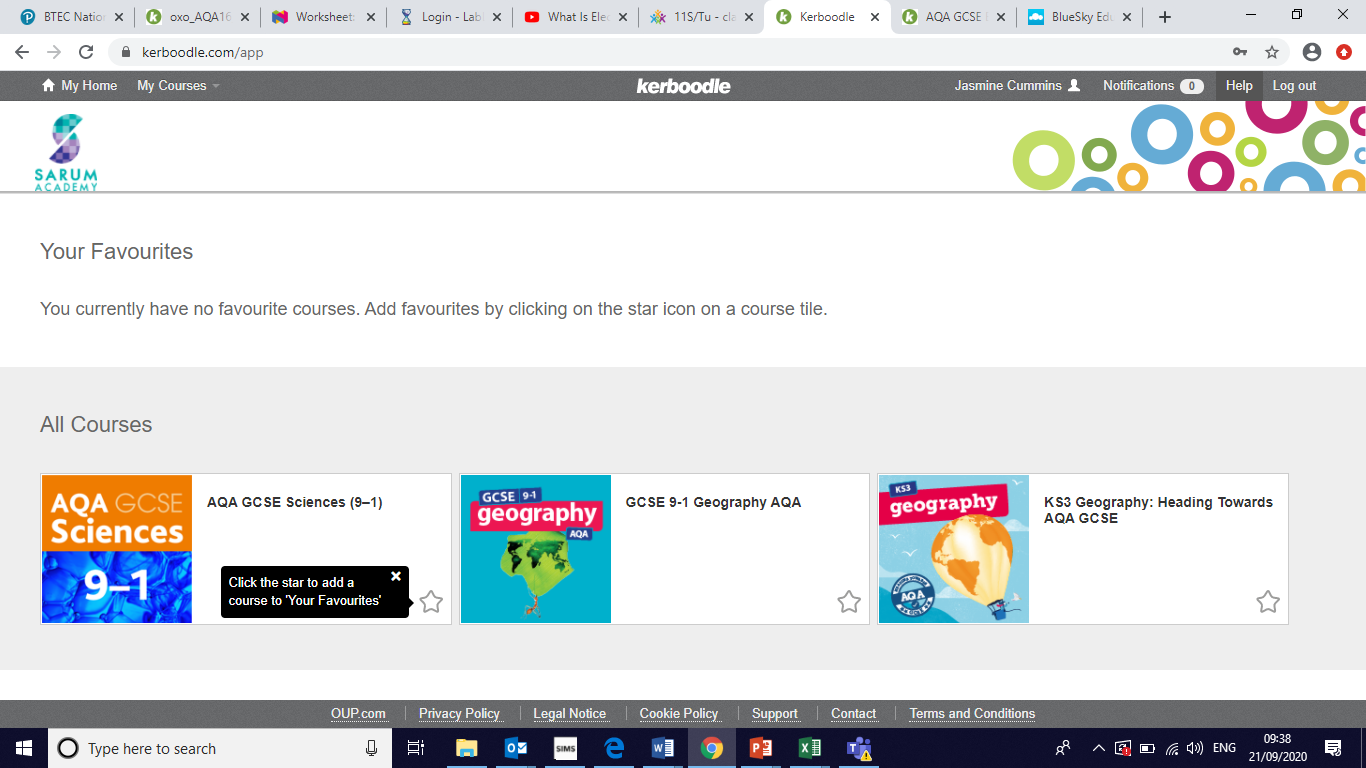
* In the search bar type in [www.kerboodle.com](http://www.kerboodle.com)



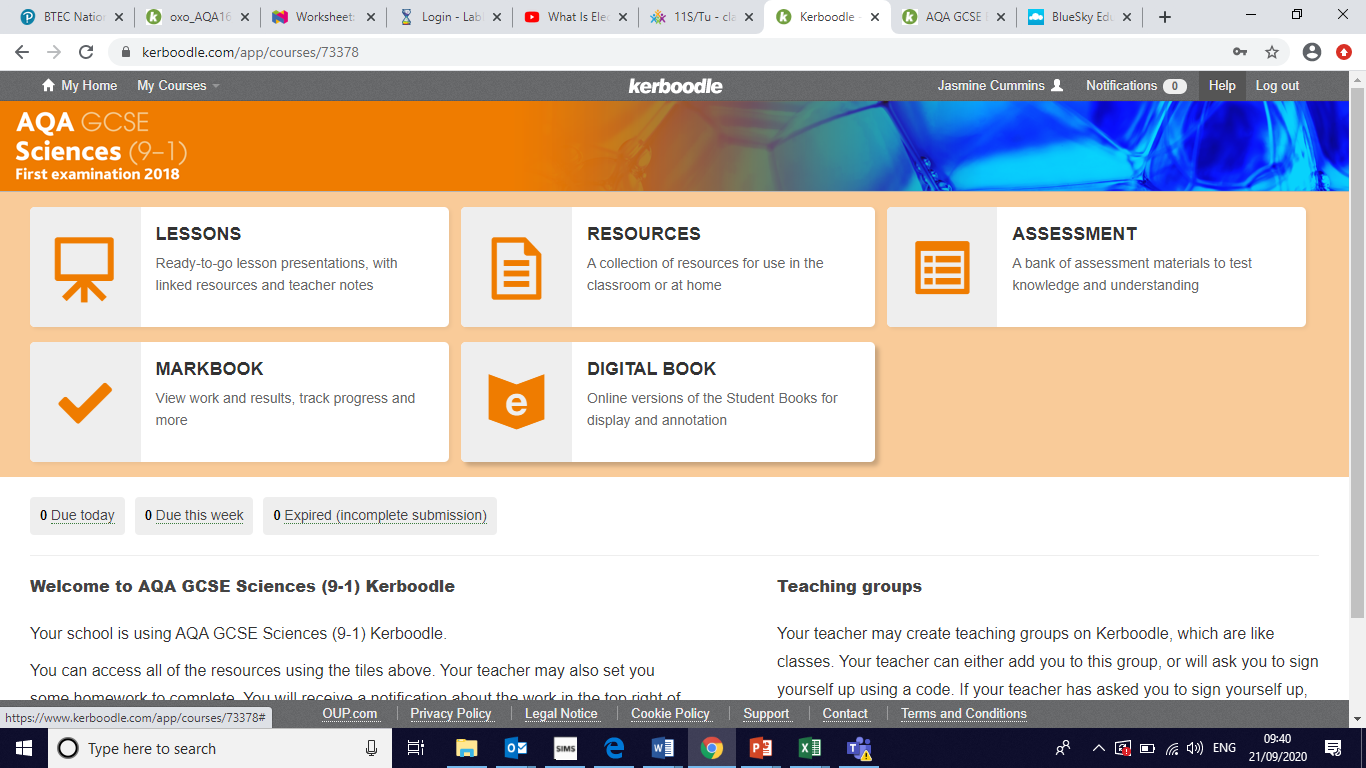
Username: your first initial and second name i.e Dave Smith = dsmith

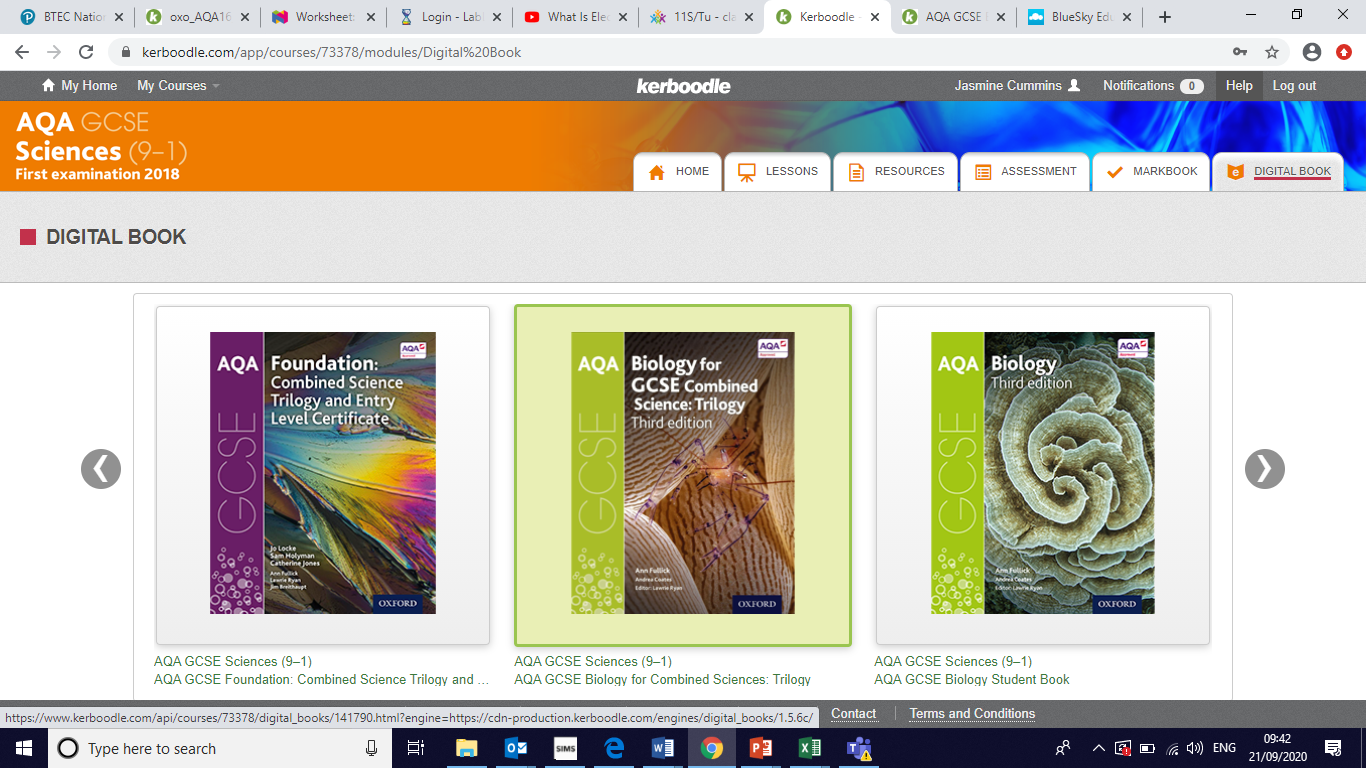
Password – default password = your usename i.e dsmith but then after logging in you can change your password.

Institute code- dj0

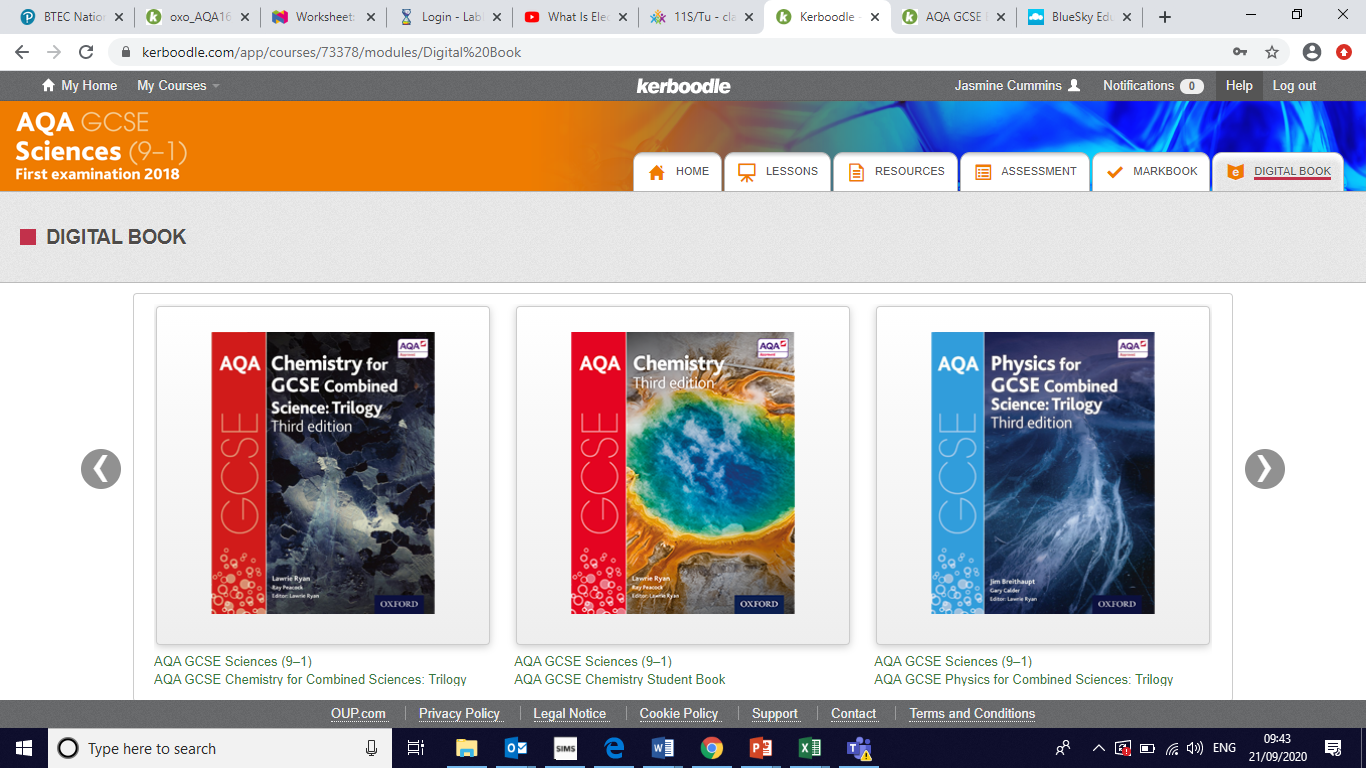


* Select the course you are doing [AQA GCSE Sciences (9-1)]
* Select digital book

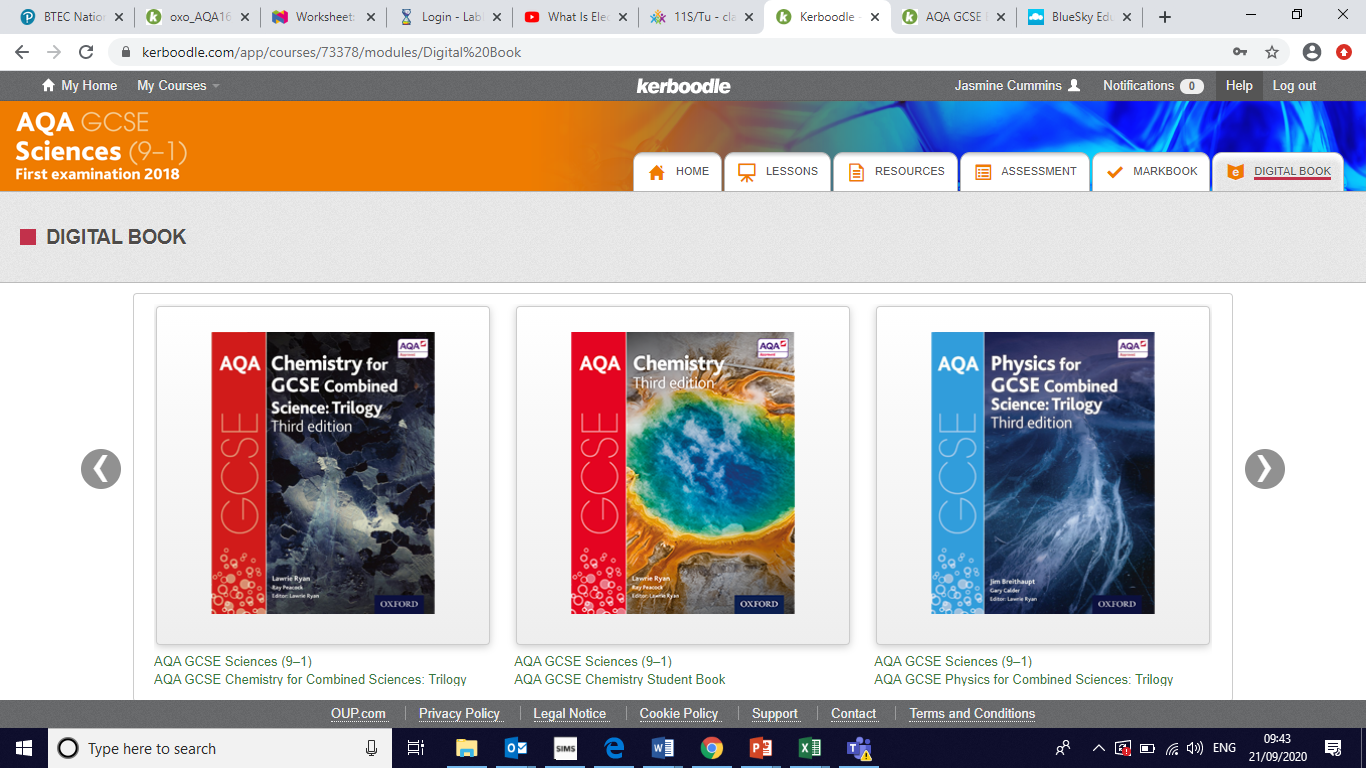


* Select the following books
* Biology Combined Sciences text book: Trilogy 

or

Physics Combined Sciences text book: Trilogy 

Or

Chemistry Combined Sciences text book: Trilogy 

BBC Bitesize for KS4 Science has been linked. Oak National Academy has also been linked, which has video lessons and assessments for reviewing student knowledge.

On the 4 lesson of each week students will be given a topic on Tassomai to complete with a minimum of 25 questions and 55% correct answers target.

**Year 9:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term** | **Unit** | **Core Content** | **Links** |
| **1** | Biology: CELL BIOLOGY | Eukaryotes, prokaryotes, cell structure, microscopy, cell specialisation, mitosis, chromosomes, diffusion, osmosis, active transport | Textbook Biology for combined science P4-35  <https://classroom.thenational.academy/units/cell-biology-b859>  <https://www.bbc.co.uk/bitesize/topics/z2mttv4> |
| Chemistry: ATOMIC STRUCTURE | Atoms, atomic number, mass number, electron structure, ions, metals and non-metals, history of the Periodic Table, separation techniques | Textbook Chemistry for combined science P2-33  <https://classroom.thenational.academy/units/atomic-structure-and-periodic-table-c831>  <https://www.bbc.co.uk/bitesize/topics/zcckk2p> |
| **2** | Chemistry: QUANTITATIVE CHEMISTRY | Relative formula mass, conservation of mass, thermal decomposition, the mole, balancing equations | Textbook Chemistry for combined science 56-65  <https://classroom.thenational.academy/units/quantitative-chemistry-4db7>  <https://www.bbc.co.uk/bitesize/topics/zsnyy4j> |
| Physics: ENERGY | Energy stores and transfers, work done, power, specific heat capacity, insulation, efficiency, energy sources | Textbook Physics for combined science 2-43  <https://classroom.thenational.academy/units/energy-c750>  <https://www.bbc.co.uk/bitesize/topics/z89ddxs> |
| **3** | Physics: PARTICLE MODEL | Density, particles, internal energy, changes of state, specific heat capacity, Brownian motion | Textbook Physics for combined science P70-95  <https://classroom.thenational.academy/units/particle-model-of-matter-a6d5>  <https://www.bbc.co.uk/bitesize/topics/z3ybb82> |
| Biology: ORGANISATION | Cell organisation, digestion, enzymes, food tests, the lungs, circulatory system, blood, cardiovascular system, cancer, plant transportation | Textbook Biology for combined science P36-66  <https://classroom.thenational.academy/units/organisation-2345>  <https://www.bbc.co.uk/bitesize/topics/zwj22nb> |
| **4** | Biology: BIOENERGETICS | Aerobic respiration, anaerobic respiration, metabolism, photosynthesis, limiting factors | Text book Biology for combined science 112-131  <https://classroom.thenational.academy/units/bioenergetics-244e>  <https://www.bbc.co.uk/bitesize/topics/zgr997h> |
| Chemistry: BONDING | States of matter, metal and non-metal reactions, metallic bonding, ionic bonding, covalent bonding, giant covalent structures, allotropes of carbon, polymers | Textbook Chemistry for combined science 34-55  <https://classroom.thenational.academy/units/bonding-structure-and-the-properties-of-matter-e93f>  <https://www.bbc.co.uk/bitesize/topics/z33rrwx> |
| **5 & 6** | Chemistry: ENERGY CHANGES | Energy stores, exothermic reactions, endothermic reactions, reaction profiles | Textbook Chemistry for combined science 96-105  <https://classroom.thenational.academy/units/energy-changes-b607>  <https://www.bbc.co.uk/bitesize/topics/z27xxfr> |
| KS4 Assessment Week | Assessment on all Units covered in year 9 so far | |
| Biology: INFECTION & RESPONSE | Communicable disease, bacterial disease, viral disease, fungal disease, protist disease, human defence systems, fighting disease, vaccinations, drug development | Text book Biology for combined science P72-111  <https://classroom.thenational.academy/units/infection-and-response-4f71>  <https://www.bbc.co.uk/bitesize/topics/z9kww6f> |