**Academic Year 2021 – 2022**

**Science Department Curriculum**

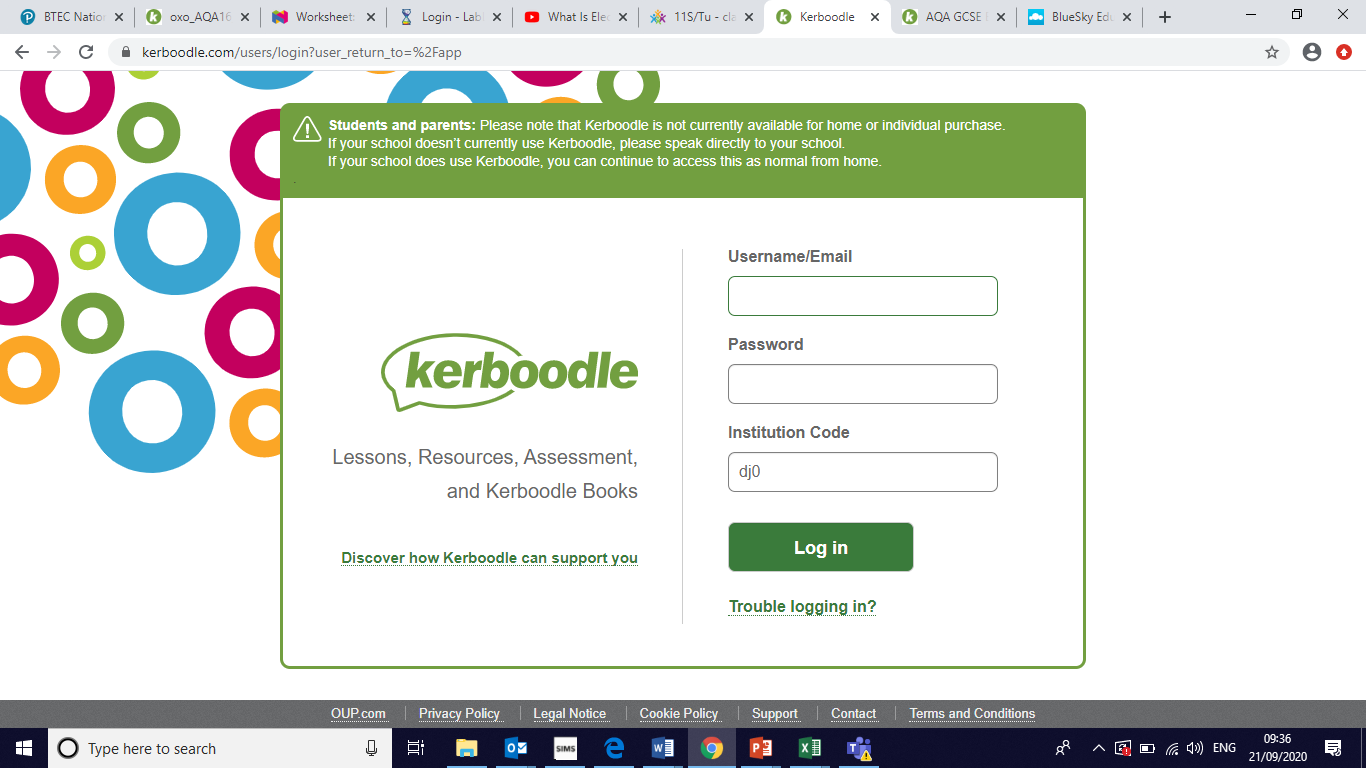
**Remote Learning Plan – Schemes of Learning Overview**

**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:**

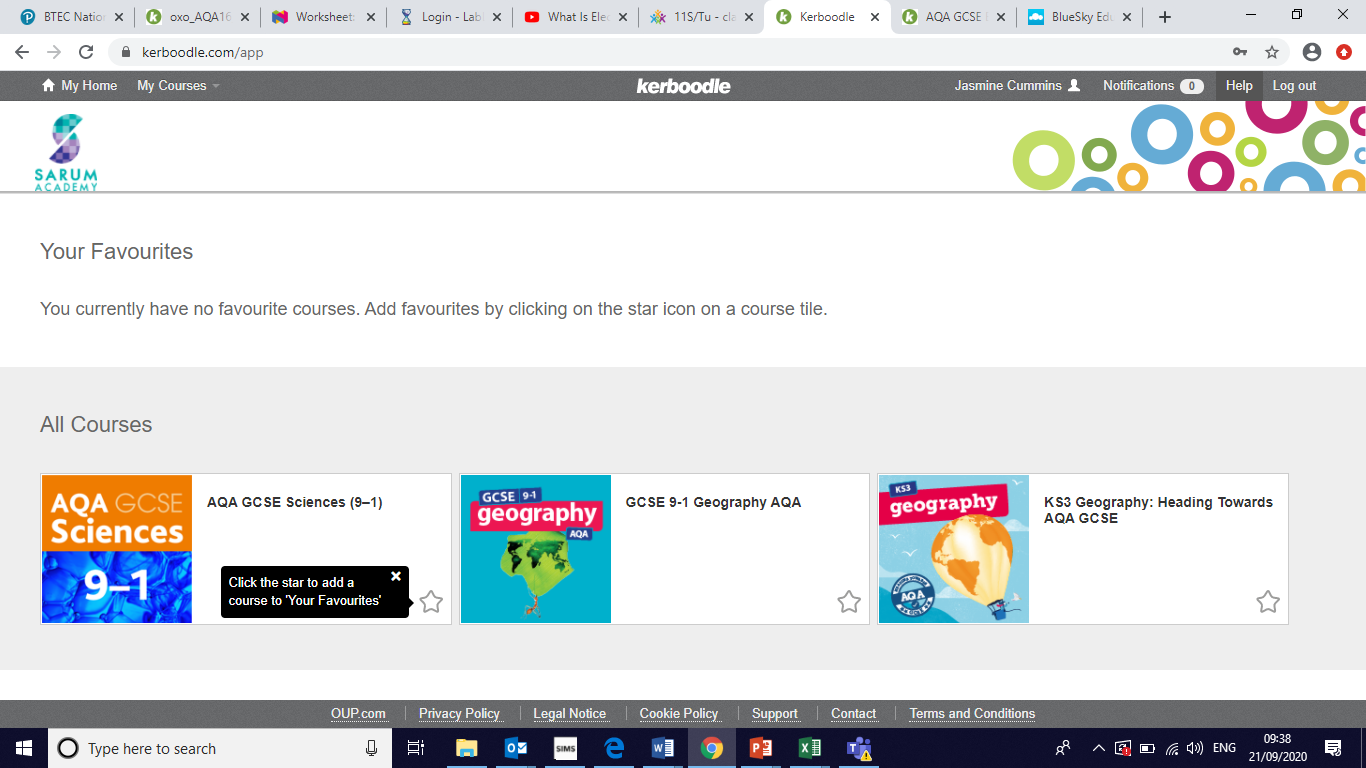
* In the search bar type in [www.kerboodle.com](http://www.kerboodle.com)



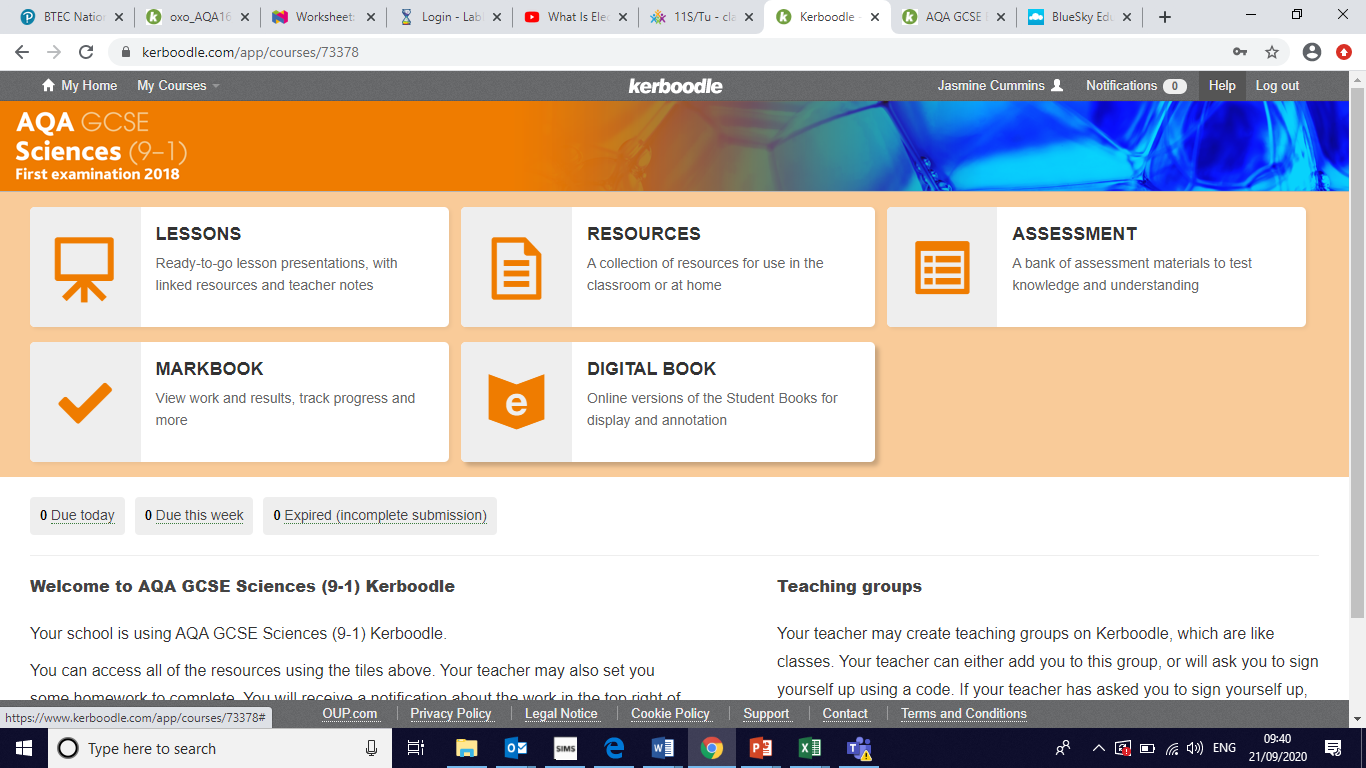
Username: your first initial and second name i.e Dave Smith = dsmith

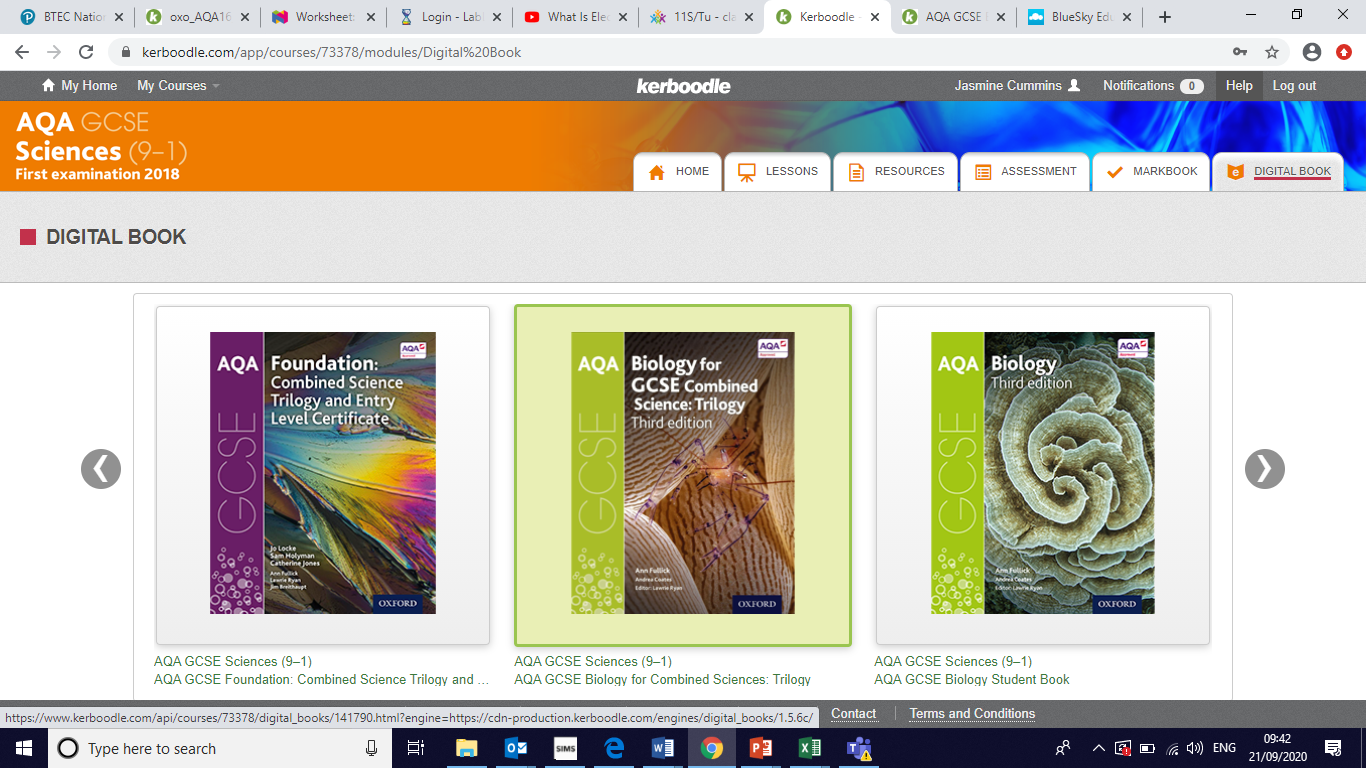
Password – default password = your usename i.e dsmith but then after logging in you can change your password.

Institute code- dj0

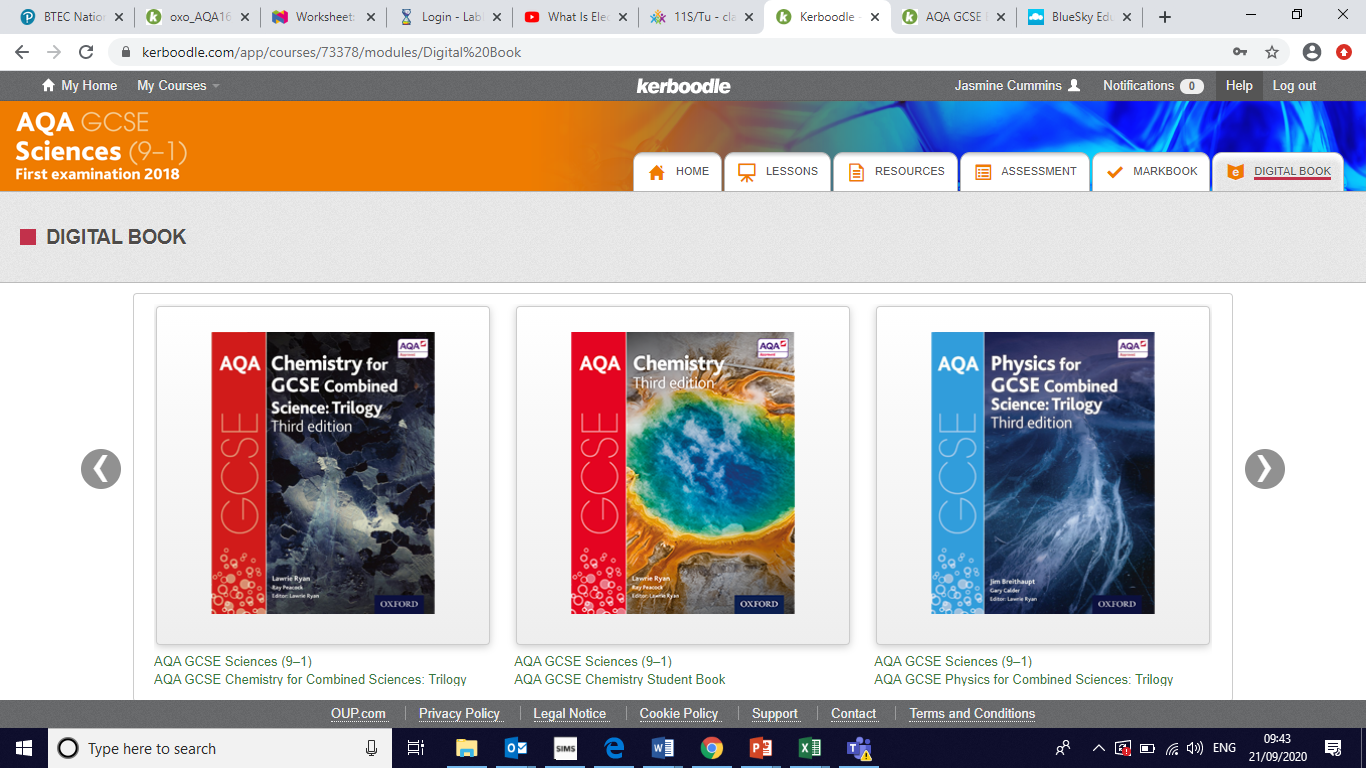


* Select the course you are doing [AQA GCSE Sciences (9-1)]
* Select digital book

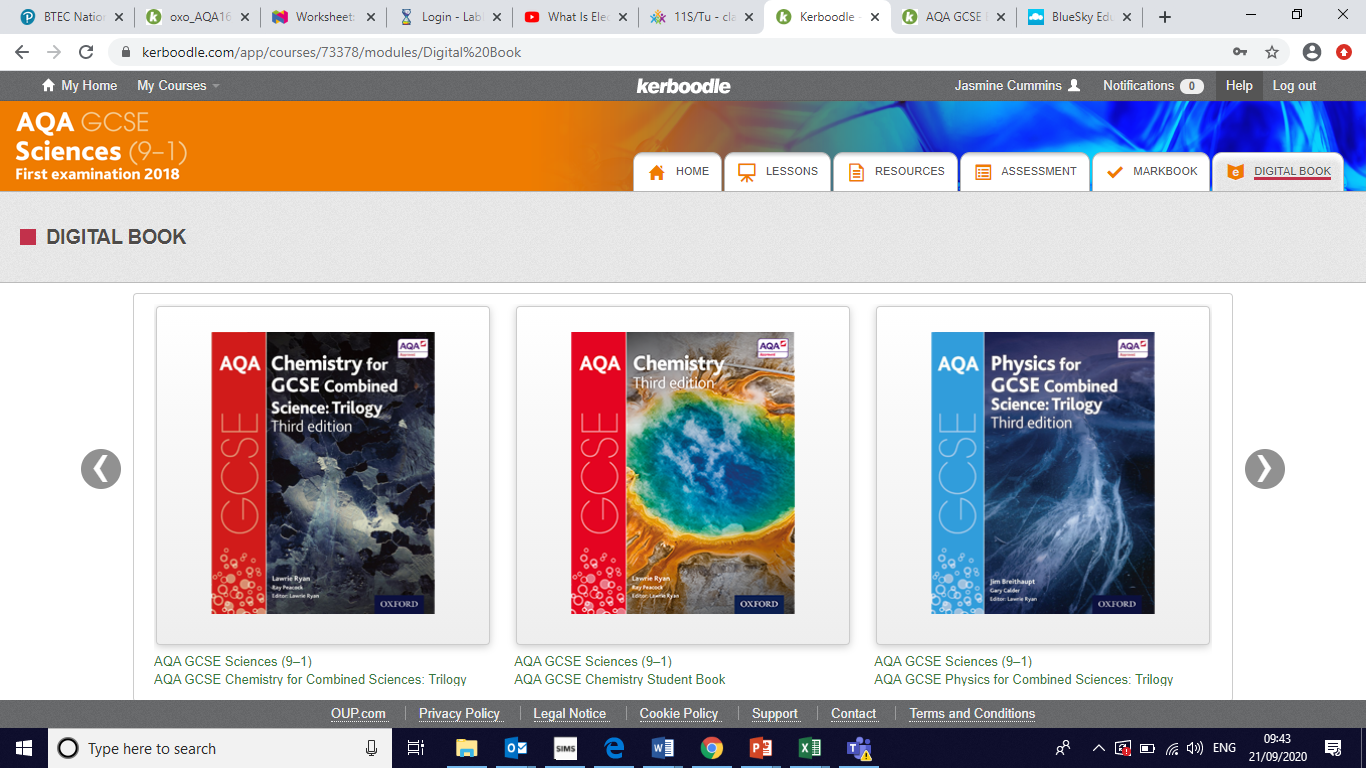


* Select the following books
* Biology Combined Sciences text book: Trilogy 

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 11:**

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| --- | --- | --- | --- |
| **Term** | **Unit** | **Core Content** | **Links** |
| **1** | 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> |
| 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> |
| 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> |
| **2** | Chemistry: ORGANIC CHEMISTRY | Hydrocarbons, alkanes, alkenes, cracking, fractional distillation | Textbook Chemistry for combined science 128-137  <https://classroom.thenational.academy/units/organic-chemistry-7c58>  <https://www.bbc.co.uk/bitesize/topics/z9488mn> |
| Chemistry: USING EARTH’S RESOURCES | Finite resources, renewable resources, potable water, waste water management, recycling | Textbook Chemistry for combined science P160-173  <https://classroom.thenational.academy/units/using-resources-febe>  <https://www.bbc.co.uk/bitesize/topics/zptnng8> |
| Biology: ECOLOGY | Communities and competition, interdependence, biotic factors, abiotic factors, adaptations, sampling ecosystems, carbon cycle, water cycle, biodiversity, waste management, land use, deforestation, global warming | Text book Biology for combined science 204-245  <https://classroom.thenational.academy/units/ecology-a6da>  <https://www.bbc.co.uk/bitesize/topics/zxxhh39> |
| **3** | Chemistry: CHEMICAL ANALYSIS | Purity, formulations, gas tests, flame tests, chromatography | Textbook Chemistry for combined science 138-147  <https://classroom.thenational.academy/units/chemical-analysis-cf8d>  <https://www.bbc.co.uk/bitesize/topics/zgbccj6> |
| Physics: WAVES | Transverse waves, longitudinal waves, frequency, wave speed, electromagnetic spectrum, uses of EM waves, dangers of EM waves | Textbook Physics for combined science P134-157  <https://classroom.thenational.academy/units/waves-4cef>  <https://www.bbc.co.uk/bitesize/topics/z2j22nb> |
| Physics: MAGNETISM | Magnetic fields, electromagnetism, induced magnets | Textbook Physics for combined science P158-165  <https://classroom.thenational.academy/units/magnetism-bf8d>  <https://www.bbc.co.uk/bitesize/topics/zwkww6f> |
| **4 and beyond** | GCSE Revision  Completion of GCSE Combined Science exams [B1, B2, C1, C2, P1, P2]  **B1 & B2:**  <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/biology>  <https://www.bbc.co.uk/bitesize/topics/zthssrd>  **C1 & C2:**  <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/chemistry>  <https://www.bbc.co.uk/bitesize/topics/z88jjty>  **P1 & P2:**  <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/physics>  <https://www.bbc.co.uk/bitesize/topics/zqw77p3> | | |