

IBDP Chemistry

Teacher to Teacher Tips

Kognity is designed to help you prepare your students for success in their studies, while saving you time in the process. We have taken some of the most frequently asked questions from IBDP Economics teachers and asked other IBDP Chemistry teachers to provide the answers to them. Explore them below!



How can students make notes in the textbook if they don't have a physical copy?

The textbook has a notebook feature in which students can highlight parts of the text and add their own notes. The notes can be colour coded to easily group together related content. Students can print these notes for use as flashcards if they prefer to have a physical version.

Collision geometry

Collisions in a reaction mixture occur randomly. This means that the particles collide in many different orientations. **Only the collisions that have the right orientation are successful collisions and lead to a reaction, given that the amount of energy is sufficient.** That is the particles must be facing each other the right way when they collide. **Video 2** explains this.

Collision Theory

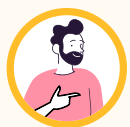
Ineffective collision

Watch on [YouTube](#)

Video 2: The geometry of collisions.

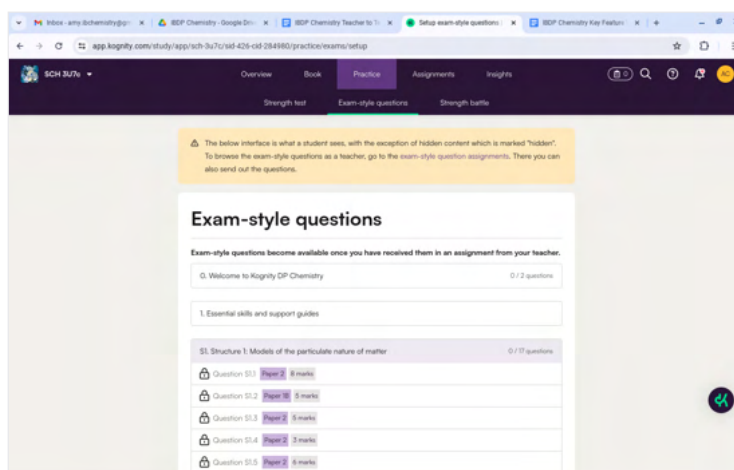
Study skills





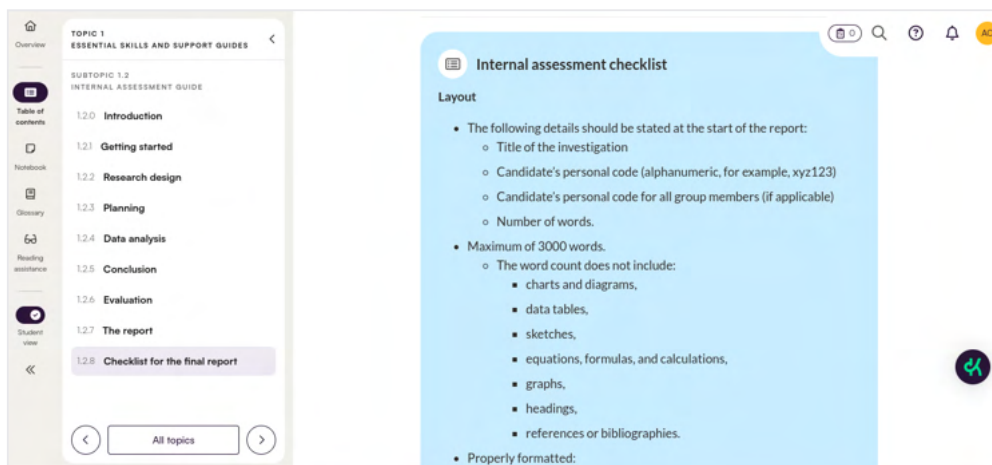
How can students prepare for the IB exams using Kognity Chemistry?

There are many exam style questions in the textbook, written in the style of past exam questions by curriculum experts for Kognity to use for assessments in class or as a mock exam in preparation for IBDP exams. All questions are linked to the relevant subtopic in the syllabus and contain detailed mark schemes with example answers. Teachers can choose a deadline and can select when students have access to the markscheme. Students do not have access to Exam Style questions in their Practice Centre, giving teachers control over how and when to use this resource.



How can Kognity Chemistry help prepare students to achieve success in the Internal Assessment?

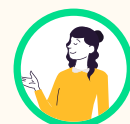
Kognity Chemistry has a detailed section on how to conduct the Chemistry Internal Assessment. Within this guide, students can find numerous tips on how to plan out their investigation and write their report using helpful checklists.



Internal assessment checklist

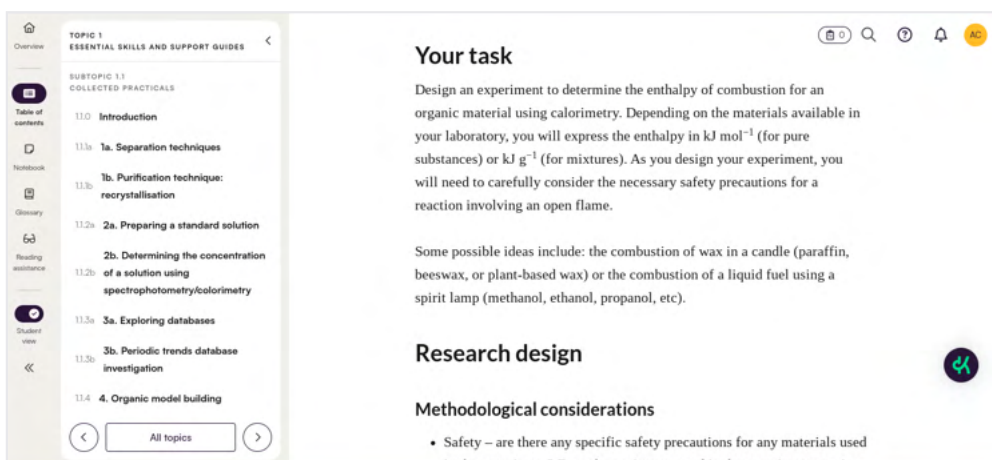
Layout

- The following details should be stated at the start of the report:
 - Title of the investigation
 - Candidate's personal code (alphanumeric, for example, xyz123)
 - Candidate's personal code for all group members (if applicable)
 - Number of words.
- Maximum of 3000 words.
 - The word count does not include:
 - charts and diagrams,
 - data tables,
 - sketches,
 - equations, formulas, and calculations,
 - graphs,
 - headings,
 - references or bibliographies.
- Properly formatted:



How can Kognity Chemistry help students with their practical skills?

Kognity Chemistry contains a Practicals section where students can find an example experiment for each of the Tools. Each practical features a suggested experiment that can be modified to meet the unique needs of the school laboratory as well as open-ended tasks for students to scaffold their inquiry skills to prepare for their Chemistry IA.



Your task

Design an experiment to determine the enthalpy of combustion for an organic material using calorimetry. Depending on the materials available in your laboratory, you will express the enthalpy in kJ mol^{-1} (for pure substances) or kJ g^{-1} (for mixtures). As you design your experiment, you will need to carefully consider the necessary safety precautions for a reaction involving an open flame.

Some possible ideas include: the combustion of wax in a candle (paraffin, beeswax, or plant-based wax) or the combustion of a liquid fuel using a spirit lamp (methanol, ethanol, propanol, etc).

Research design

Methodological considerations

- Safety – are there any specific safety precautions for any materials used in the experiment? Does the environment used in the experiment require...

