

Assessment Prep with Kognity

IBDP Chemistry

What is this guide for?

This guide is designed to help you make the most out of Kognity as a tool to prepare students for success both in formative assessments and IBDP exam preparation.

How does Kognity help with assessment preparation for IBDP Chemistry?

According to [John Hattie](#), Professor of Education and Director of the Melbourne Educational Research Institute at the University of Melbourne, Australia, feedback is an important driver for improving teaching and learning. Formative assessments play a large role in consistent feedback throughout the year as students prepare for their IBDP exams. Kognity provides efficient tools for immediate feedback to both the student and teacher.

“

“Think of feedback as received, not given.”

John Hattie

For students:

Students can test their problem solving, interpretation and analysis skills in Chemistry through completing worked examples and receiving immediate feedback on their responses. In addition, at the end of each section, students can complete section questions that are auto-graded, allowing them to receive feedback right away on their progress.



For teachers:

Teachers get immediate feedback on their students' progress through the Textbook and Questions data, located on the Insights page. Here, teachers can view a visual representation of student quiz and assignment scores. Teachers can then easily identify those students who need help, which makes intervention fast and efficient.

Below you will find some ways teachers can use Kognity's resources to successfully prepare their students for IBDP Chemistry assessment components. Click on each picture to explore more in Kognity Chemistry!



How does Kognity
help with formative
assessments?



How does Kognity help
with IB Assessment
Preparation?

How does Kognity help with formative assessments?

Revisions Quizzes

Kognity's question assignments can be used as revision quizzes for review at the end of a unit. Teachers can drill students on specific techniques and tools using multiple examples. All question assignments are auto-graded, so students and teachers can immediately receive the results. Teachers can then revise any common mistakes before starting to teach new content.

IB DP Chemistry SL/HL FE2025 (NEW) - All

1264 questions match your filters

Create question

Question preview

S2.1

Question

Complete the following sentence.

The total number of ions in one mole of magnesium nitrate, $\text{Mg}(\text{NO}_3)_2$ is $\times 10^{24}$.

Give the answer to 3 significant figures. The $\times 10^{24}$ is **not** required in the answer.

$N_A = 6.02 \times 10^{23}$

Show answers

Add Question

Level	Difficulty	Topic	Type
HL		R3.1	
SL	HL	S1.4	
SL	HL	S1.4	
SL	HL	S2.1	
HL		2 topics	
HL		2 topics	
HL		2 topics	
HL		2 topics	
HL		2 topics	
HL		2 topics	
HL		2 topics	
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HL		2 topics	
HL		2 topics	
HL		2 topics	

Rank the following compounds in order from fastest to slowest reaction rate for the $\text{S}_\text{N}1$ reaction with hydroxide:

How does Kognity help with formative assessments?

Exam-style Preparation

Kognity provides exam-style questions, marks schemes and model answers that teachers can use in a variety of different ways with their students. For example, teachers can go over a practice paper as a class, write the answer together, and focus on examiner comments.

Select your questions

Book topics

- all
- Q. Welcome to Kognity DP Chemistry
- 1. Essential skills and support guides
- S1. Structure 1: Models of the particulate nature of matter
- S2. Structure 2: Models of bonding and structure
- S3. Structure 3: Classification of matter
- R1. Reactivity 1: What drives chemical reactions?
- R2. Reactivity 2: How much, how fast and how far?
- R3. Reactivity 3: What are the mechanisms of chemical change?

S1. Structure 1: Models of the particulate nature of matter

17 questions

Add exam-style question

Q	Text	Question	Level	Paper	Marks
Q	def		1		1
Q	Paper 1B: Data-based questions	Answer all questions. A student is consulting a solubility curve where the behaviour of several substances also	SL	HL	12
Q	Paper 1B: Data-based questions	Answer all questions. A student is performing a reaction between copper(II) chloride and sodium hydroxide so	SL	HL	10
Q	Paper 2: Short answer and extended-response questions	Answer all questions. A balloon, which can hold a maximum of 1000 cm ³ of nitroge	SL	HL	6
Q	Paper 2: Short answer and extended-response questions	Answer all questions. An organic compound, X, has the following composition by m	SL	HL	6
Q	Paper 2: Short answer and extended-response questions	Answer all questions. The successive ionisation energies of germanium are shown in	SL	HL	4
Q	Paper 2: Short answer and extended-response questions	Answer all questions. Values of the first ionisation energies of the elements are prese	SL	HL	8
Q	Paper 2: Short answer and extended-response questions	Answer all questions. The graph of the first ionisation energy plotted against atomic	SL	HL	11
Q	Paper 2: Short answer and extended-response questions	Answer all questions. (a) Evidence showing the existence of energy levels in atoms is	SL	HL	6
Q	Paper 2: Data-based questions	Answer all questions. Carboplatin, used in the treatment of lung cancer, has the following three-dimensional st	SL	HL	6
Q	Paper 2: Short answer and extended-response questions	Answer all questions. (a) Line spectra are used to understand electron configuration.	SL	HL	18
Q	Paper 2: Short answer and extended-response questions	Answer all questions. (a) Define the term isotope. (2) (b) A sample of gallium exists as	SL	HL	4
Q	Paper 2: Data-based question	Answer all questions. Answers must be written within the answer boxes provided. The diagram below (which is	SL	HL	6
Q	Paper 2: Short answer and extended-response questions	Answer all questions. (a) State the full electron configuration for argon. (1) (b) Give th	SL	HL	3
Q	Paper 2: Data-based question	Answer all questions. Answers must be written within the answer boxes provided. Strontium exists as four natur	SL	HL	5
Q	Paper 1B: Data-based question	Answer all questions. Answers must be written within the answer boxes provided. A student carried out an exp	SL	HL	5
Q	Paper 2: Data-based question	Answer all questions. (a) (i) An organic substance X is composed of 54.5% carbon, 9.2% hydrogen, and 36.3%	SL	HL	8

1 - 17 of 17 items

Self-Study

To provide students with resources for self-directed active recall study, use Strength tests and battles. Students can also use self-assessment checklists before a test or exam to help students identify areas of weakness.

Overview Book Practice Assignments Insights

Strength test Exam-style questions Strength battle

1 2 3 4 5

Question 1 SL HL Difficulty

Complete the following sentence.

Isotopes are atoms of the same element that have the same atomic number but a different _____ number.

Please note that **neutron number** is not the answer to this question because it is not part of the nuclear symbol notation.

Report feedback < Previous Next >

How does Kognity help with formative assessments?


Reflections

Reflections provide students with an opportunity to reflect on their learning. They encourage students to return to the subtopic's guiding questions, consider what they've learned, and write down their thoughts.

Reflections are an excellent assessment tool for gauging students' development and engagement with the material. As a teacher, you can use the Reflections submitted by your students as an additional tool to assess their conceptual understanding of the course.

S3. Structure 3: Classification of matter / S3.1 The periodic table: Classification of elements

Reflection

 Reflection


Now that you've completed this subtopic, let's come back to the guiding question introduced in [The big picture](#):

- How does the periodic table help us to predict patterns and trends in the properties of elements?

With this question in mind, take a moment to reflect on your learning so far and type your reflections into the space provided.

You can use the following questions to guide you:

- What main points have you learned from this subtopic?
- Is anything unclear? What questions do you still have?
- How confident do you feel in answering the guiding questions?
- What connections do you see between this subtopic and other parts of the course?

 Once you submit your response, you won't be able to edit it.

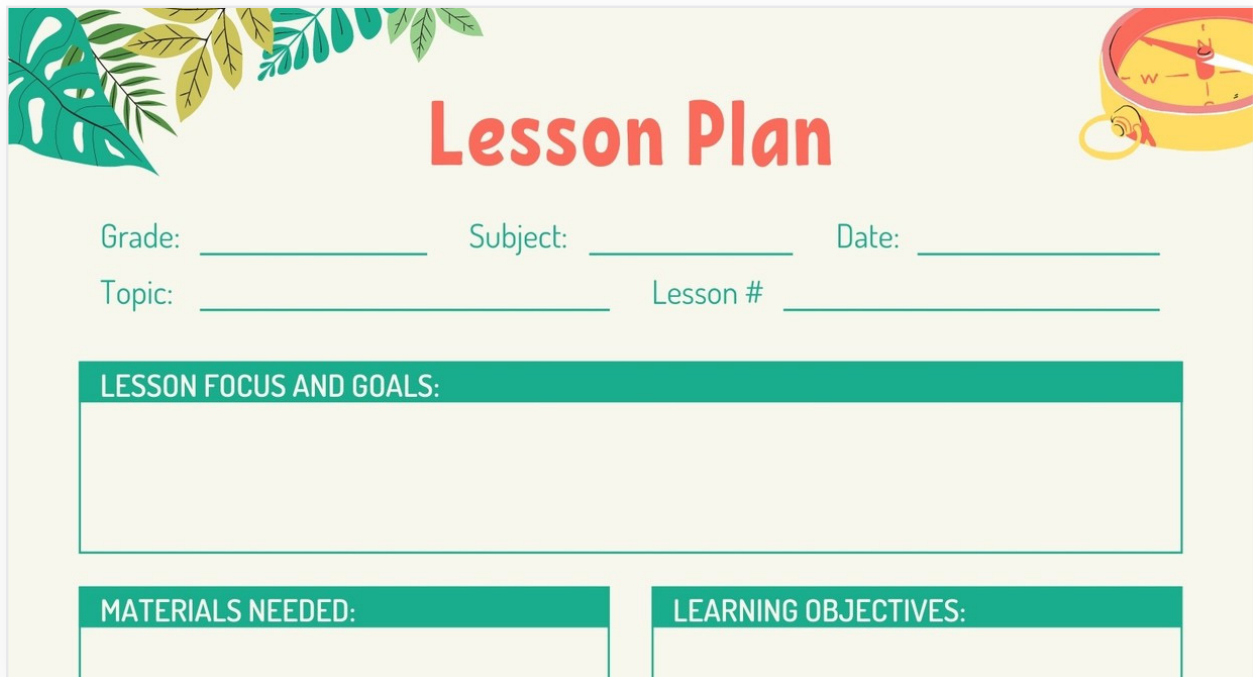
0/2000

Close

How does Kognity help with formative assessments?

Notebook and Checklists

Kognity's notebook feature allows students to make their own notes and print out if necessary for consolidation. Students can use the notebook feature when they are performing self-assessment of knowledge and understanding at the end of each chapter with the checklists.



The image shows a 'Lesson Plan' form template. It features a decorative header with green leaves on the left and a yellow compass on the right. The title 'Lesson Plan' is centered in red. Below the title are four input fields: 'Grade: _____', 'Subject: _____', 'Date: _____', and 'Topic: _____ Lesson # _____'. The form is divided into three main sections: a large green box for 'LESSON FOCUS AND GOALS:', a smaller green box for 'MATERIALS NEEDED:', and another smaller green box for 'LEARNING OBJECTIVES:'. Each section has a corresponding empty box for text entry.

Lesson Plan

Grade: _____ Subject: _____ Date: _____
Topic: _____ Lesson # _____

LESSON FOCUS AND GOALS:

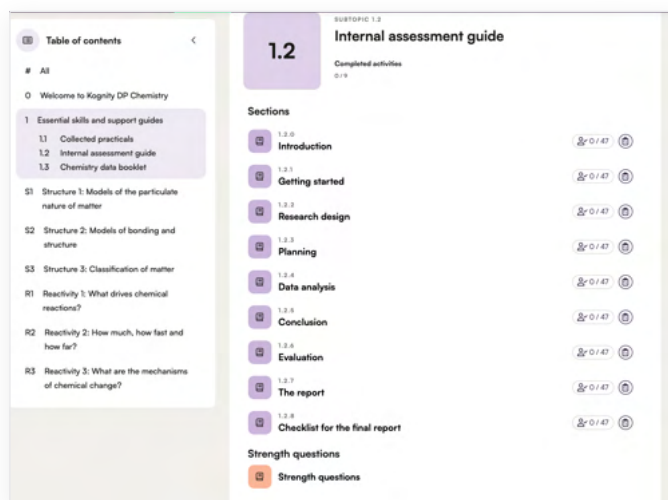
MATERIALS NEEDED:

LEARNING OBJECTIVES:

How does Kognity help with IB Assessment Preparation?

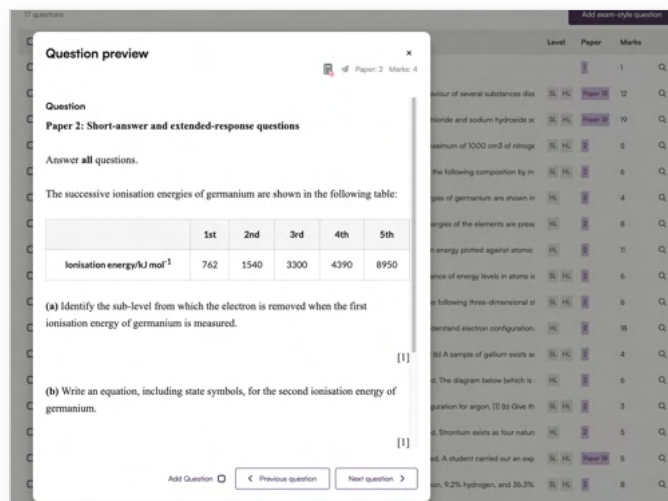
Internal Assessment (IA)

To ensure success in the IA, teachers must spend time introducing and explaining the criteria and responsibilities to their students. Kognity's Internal Assessment Guide is a great resource for both teachers and students to understand the requirements and see clear and detailed examples for each criterion, as well as formats for planning and reviewing their drafts.



IB Exam Papers

Exam tips are written by IB examiners and provide students with an understanding of what is expected of them in their exams. Kognity's exam-style assignments are all based on Papers 1B and 2 and contain questions, example answers and commented mark schemes that provide students tips for success that are written by examiners. Just add a timer when using an exam-style assignment to model real exam conditions!



How does Kognity help with IB Assessment Preparation?

Collected Practicals

For the collected practicals, Kognity has examples of practicals for each of the topics. Each experiment has a customisable procedure together with a suggested list of apparatus and chemicals for teachers to modify according to their unique school laboratory. Additionally, there are open-ended investigations that encourage students to develop their own experiments, promoting their inquiry skills to prepare for the IA.

The screenshot displays the Kognity DP Chemistry interface. On the left is a 'Table of contents' sidebar with a list of topics. The main area is titled 'SUBTOPIC 1.1 Collected practicals' and shows a list of sections with progress indicators. A red arrow points to the 'Collected practicals' section in the table of contents.

Section	Progress
1.1.0 Introduction	1 / 47
1.1.1A 1a. Separation techniques	1 / 47
1.1.1B 1b. Purification technique: recrystallisation	1 / 47
1.1.2A 2a. Preparing a standard solution	1 / 47
1.1.2B 2b. Determining the concentration of a solution using spectrophotometry/colorimetry	1 / 47
1.1.3A 3a. Exploring databases	1 / 47
1.1.3B 3b. Periodic trends database investigation	1 / 47
1.1.4 4. Organic model building	0 / 47
1.1.5A 5a. Determining enthalpy changes in aqueous solutions	0 / 47
1.1.5B 5b. Determining enthalpy changes for combustion reactions	0 / 47
1.1.6A 6a. Determining the rate of a chemical reaction	0 / 47

