

Pearson Edexcel IAL Overview: Biology, Chemistry & Physics



100% externally assessed



Exams in January, June and October

Containing up to date and engaging content, the Pearson Edexcel International Advanced Level qualifications in Biology, Chemistry and Physics are designed to enhance students' future educational and employment prospects. We have listened to feedback from all parts of the international school education community, including a large number of teachers and developed these qualifications to give students the necessary skills to support progression.

At a glance

The structure of these qualifications allows teachers to construct a course of study that can be taught and assessed as either:

- distinct modules of teaching and learning with related units of assessment taken at appropriate stages during the course; or, if wished,
- a linear course assessed in its entirety at the end.

An International Advanced Subsidiary qualification can be claimed as a discrete qualification on completion of the three International Advanced Subsidiary (IAS) units.

The International Advanced Level qualification can be claimed on completion of all six units in the specification.

IAS	IAL
To achieve IAS, students must complete all IAS units.	To achieve IAL, students must complete all IAS and all IA2 units.
Three IAS units: Units 1, 2 and 3.	Three IAS units: Units 1, 2 and 3 plus three IA2 units: Units 4, 5 and 6.

Content

The content has been updated from the previous Pearson Edexcel IAL qualifications in Biology, Chemistry and Physics. Each specification covers the subject's major topics. Students will also develop their practical skills.

	Topics covered: (Units 3 and 6 cover Practical Skills)	Minimum core practical activities
Biology	Unit 1: Biological molecules, diet, transport, health Unit 2: Cells, development, biodiversity, conservation Unit 4: Energy, environment, microbiology, immunity Unit 5: Respiration, internal environment, coordination and gene technology.	18
Chemistry	Unit 1: Structure, bonding, introduction to organic chemistry Unit 2: Energetics, Group Chemistry, Halogenoalkanes and Alcohols Unit 4: Rates, Equilibria and Further Organic Chemistry Unit 5: Transition Metals and Organic Nitrogen Chemistry	16
Physics	Unit 1: Mechanics and Materials Unit 2: Waves and Electricity Unit 4: Further Mechanics, Fields and Particles Unit 5: Thermodynamics, Radiation, Oscillations and Cosmology	16

See pages 7–9 for more detail on the content and assessment of each qualification.

Approach

Learners will develop their knowledge and understanding of their subject by applying the concepts in the specifications to a range of different problems, set in a variety of contexts. Problems will require the application of mathematical skills. Centres are encouraged to include additional practical activities to develop students' practical skills further.

Specifications

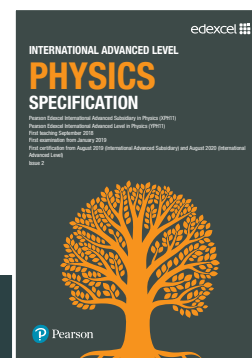
For further information and to download the specifications, visit:



qualifications.pearson.com/ialbiology2018



qualifications.pearson.com/ialchemistry2018



qualifications.pearson.com/ialphysics2018

Helping students make the best progress they can

These qualifications enable successful progression to further education courses in sciences. Through our world-class qualification development process, we have consulted with a number of universities in the UK, as well as internationally, to validate the appropriateness of these qualifications, including content, skills and assessment structure.

Aims of the Qualification

The aims and objectives of these qualifications are to enable students to develop:

- essential knowledge and understanding of different areas of the subject and how they relate to each other
- a deep appreciation of the skills, knowledge and understanding of scientific methods
- competence and confidence in a variety of practical, mathematical and problem-solving skills
- their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with the subject.

Students will

- develop and use a range of mathematical skills that support their knowledge and understanding of their subject
- gain experience in a variety of practical techniques and procedures, which will be assessed separately in Unit 3 and Unit 6
- widen their learning through a number of key transferable skills, which may be cognitive, intrapersonal or interpersonal.



IAL Biology

Unit Overview

Unit	Unit code:	% of the qualification	% of the total IAL	Examination duration	Marks available
Unit 1: Molecules, Diet, Transport and Health	WBI11/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 2: Cells, Development, Biodiversity and Conservation	WBI12/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 3: Practical Skills in Biology I	WBI13/01	20% of IA2	10%	1 hr 20 mins	50 marks
Unit 4: Energy, Environment, Microbiology and Immunity	WBI14/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 5: Respiration, Internal Environment, Coordination and Gene Technology	WBI15/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 6: Practical Skills in Biology II	WBI16/01	20% of IA2	10%	1 hr 20 mins	50 marks

Assessment timelines

Specification	Level	Units	Jun 2019	Oct 2019	Jan 2020	Jun 2020	Oct 2020	Jan 2021
LEGACY BIOLOGY 2013 SPECIFICATION								
Biology 2013	AS	WBI01	✓	✗	✗	✗	✗	✗
Biology 2013	AS	WBI02	✓	✗	✗	✗	✗	✗
Biology 2013	AS	WBI03	✓	✗	✗	✗	✗	✗
Biology 2013	AL	WBI04	✓	✓	✗	✓	✗	✗
Biology 2013	AL	WBI05	✓	✓	✗	✓	✗	✗
Biology 2013	AL	WBI06	✓	✓	✗	✓	✗	✗
BIOLOGY 2018 SPECIFICATION								
Biology 2018	AS	WBI11	✓	✓	✓	✓	✓	✓
Biology 2018	AS	WBI12	✓	✓	✓	✓	✓	✓
Biology 2018	AS	WBI13	✓	✓	✓	✓	✓	✓
Biology 2018	AL	WBI14	✗	✗	✓	✓	✓	✓
Biology 2018	AL	WBI15	✗	✗	✗	✓	✓	✓
Biology 2018	AL	WBI16	✗	✗	✗	✓	✓	✓

For further information and to download the specification, visit qualifications.pearson.com/ialbiology2018



IAL Chemistry

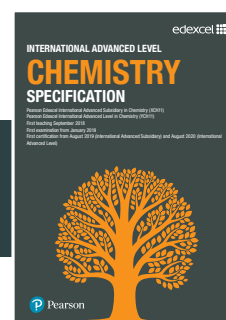
Unit Overview

Unit	Unit code:	% of the qualification	% of the total IAL	Examination duration	Marks available
Unit 1: Structure, Bonding and Introduction to Organic Chemistry	WCH11/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 2: Energetics, Group Chemistry, Halogenoalkanes and Alcohols	WCH12/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 3: Practical Skills in Chemistry I	WCH13/01	20% of IA2	10%	1 hr 20 mins	50 marks
Unit 4: Rates, Equilibria and Further Organic Chemistry	WCH14/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 5: Transition Metals and Organic Nitrogen Chemistry	WCH15/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 6: Practical Skills in Chemistry II	WCH16/01	20% of IA2	10%	1 hr 20 mins	50 marks

Assessment timelines

Specification	Level	Units	Jun 2019	Oct 2019	Jan 2020	Jun 2020	Oct 2020	Jan 2021
LEGACY CHEMISTRY 2013 SPECIFICATION								
Chemistry 2013	AS	WCH01	✓	✗	✗	✗	✗	✗
Chemistry 2013	AS	WCH02	✓	✗	✗	✗	✗	✗
Chemistry 2013	AS	WCH03	✓	✗	✗	✗	✗	✗
Chemistry 2013	AL	WCH04	✓	✓	✗	✓	✗	✗
Chemistry 2013	AL	WCH05	✓	✓	✗	✓	✗	✗
Chemistry 2013	AL	WCH06	✓	✓	✗	✓	✗	✗
CHEMISTRY 2018 SPECIFICATION								
Chemistry 2018	AS	WCH11	✓	✓	✓	✓	✓	✓
Chemistry 2018	AS	WCH12	✓	✓	✓	✓	✓	✓
Chemistry 2018	AS	WCH13	✓	✓	✓	✓	✓	✓
Chemistry 2018	AL	WCH14	✗	✗	✓	✓	✓	✓
Chemistry 2018	AL	WCH15	✗	✗	✗	✓	✓	✓
Chemistry 2018	AL	WCH16	✗	✗	✗	✓	✓	✓

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IAL Physics

Unit Overview

Unit	Unit code:	% of the qualification	% of the total IAL	Examination duration	Marks available
Unit 1: Mechanics and Materials	WPH11/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 2: Waves and Electricity	WPH12/01	40% of IAS	20%	1 hr 30 mins	80 marks
Unit 3: Practical Skills in Physics I	WPH13/01	20% of IA2	10%	1 hr 20 mins	50 marks
Unit 4: Further Mechanics, Fields and Particles	WPH14/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 5: Thermodynamics, Radiation, Oscillations and Cosmology	WPH15/01	40% of IA2	20%	1 hr 45 mins	90 marks
Unit 6: Practical Skills in Physics II	WPH16/01	20% of IA2	10%	1 hr 20 mins	50 marks

Assessment timelines

Specification	Level	Units	Jun 2019	Oct 2019	Jan 2020	Jun 2020	Oct 2020	Jan 2021
LEGACY PHYSICS 2013 SPECIFICATION								
Physics 2013	AS	WPH01	✓	✗	✗	✗	✗	✗
Physics 2013	AS	WPH02	✓	✗	✗	✗	✗	✗
Physics 2013	AS	WPH03	✓	✗	✗	✗	✗	✗
Physics 2013	AL	WPH04	✓	✓	✗	✓	✗	✗
Physics 2013	AL	WPH05	✓	✓	✗	✓	✗	✗
Physics 2013	AL	WPH06	✓	✓	✗	✓	✗	✗
PHYSICS 2018 SPECIFICATION								
Physics 2018	AS	WPH11	✓	✓	✓	✓	✓	✓
Physics 2018	AS	WPH12	✓	✓	✓	✓	✓	✓
Physics 2018	AS	WPH13	✓	✓	✓	✓	✓	✓
Physics 2018	AL	WPH14	✗	✗	✓	✓	✓	✓
Physics 2018	AL	WPH15	✗	✗	✗	✓	✓	✓
Physics 2018	AL	WPH16	✗	✗	✗	✓	✓	✓

For further information and to download the specification, visit qualifications.pearson.com/ialphysics2018

