

# PEARSON EDEXCEL INTERNATIONAL GCSE (9-1)

# Physics

GETTING READY TO TEACH

Event code: 4PH1-19IF01

---

First teaching in 2017, first assessment in 2019.

---



# Session agenda

10:00	Welcome & Introductions
10.05	Brief overview of Pearson Edexcel
10.10	International GCSE Features
10:15	Introduction to the new International GCSE in Physics (9-1)
11.00	Contents and Networking activities
1.00	Lunch
2.00	Contents and Networking activities continued
3.30	Support, resources and final questions
4.00	Finish

# Aims and Objectives

Delegates will:

- Understand the subject and structure of specification
- Understand changes in the specification
- Consider approaches to teaching and learning
- Understand assessment aims and objectives
- Understand the new 9-1 grading scale
- Understand question papers and marking
- Review resources and services that are available to support teaching.

# Welcome to Pearson Edexcel

Welcome to Pearson Edexcel,  
the world's leading learning company  
and the UK's largest awarding body.

We set the standard for worldwide  
recognised qualifications, built on the  
UK educational system and accepted  
by universities worldwide.

We have a simple mission:  
**to help make a measurable impact on  
improving people's lives through  
learning.**

*“We judge  
ourselves – and  
invite others to  
judge us – not by  
the products that  
we make but by the  
impact on  
learners.”*

**John Fallon,**  
Chief Executive Officer, Pearson

# About Pearson Edexcel?

- As the UK's largest awarding organisation, we are best placed to provide qualifications that are most closely aligned to the British educational system.
- We are the most reliable awarding organisation in the UK, recognised and trusted by educators, learners and employers to provide high quality qualifications.
- By helping you to realise student potential, you can prepare and empower all your students to progress to further education, university and employment.
- Our technology capability allows us to provide you with more advanced support services, tools and resources to make life easier for school leaders, teachers and students.
- Pearson Edexcel are leading the way, challenging thinking and creating new ideas so you can be confident our qualifications will always be world-class

# Where does International GCSE fit in?

Delivering a consistent learning journey for teachers and students aged 5 to 19, everywhere in the world. The iProgress family includes:



## More than just a curriculum or qualification

iProgress offers a range of curriculum support resources, tools and services including training, professional development, print and online teaching materials.

# World-class features

All Edexcel qualifications are developed to meet Pearson's **World Class Qualification design principles**

Developed using an understanding and benchmarking of **all educational systems**



Endorsement of educational **thought-leaders** and **assessment experts** from across the globe

Qualifications that support young people to **develop the capabilities** they need to **progress** and prosper in their lives

# The global transferable skills framework

## COGNITIVE

Core skills brain uses to think, learn and reason – used to carry out any task.

**Critical Thinking, Problem Solving, Analysis, Decision-making, Creativity**

## INTRAPERSONAL

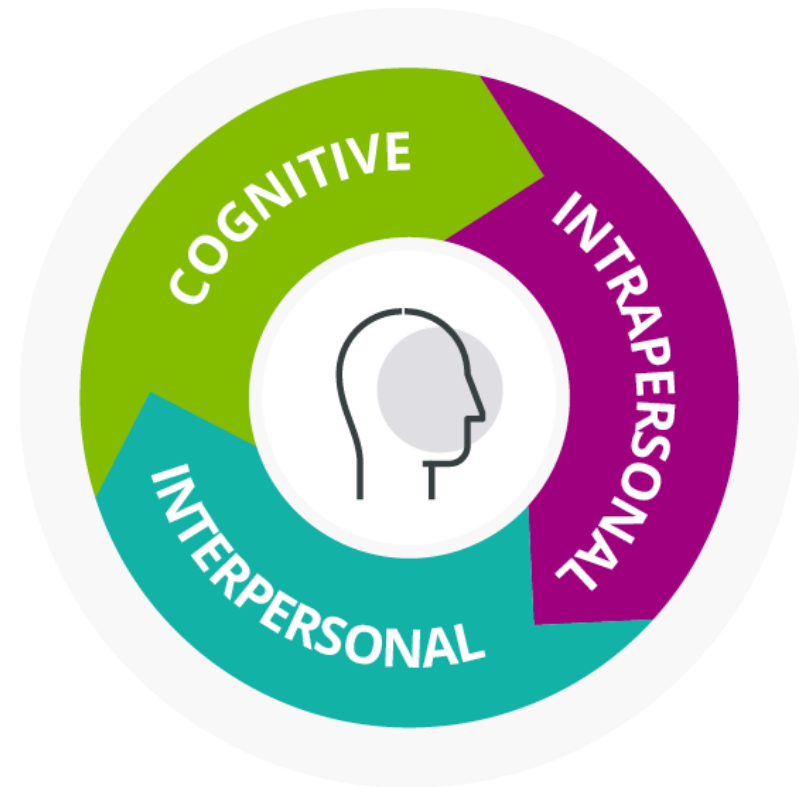
Emotional intelligence, ability to know, understand and manage own emotions and learning.

**Adaptability, Continuous Learning, Intellectual Curiosity, Work Ethics, Self-Evaluation**

## INTERPERSONAL

Life skills used every day to communicate and interact with others, individually and in groups.

**Teamwork & Collaboration, Communication, Negotiation, Empathy, Leadership**





# International GCSE (9-1)

Ages 14-16

# Key features of the new International GCSE

- Reviewed and updated in light of UK GCSE changes
- Consultation with teachers and higher education institutions
- Dedicated textbooks are available
- New 9-1 grading scale
- Transferable Skills embedded
- Pearson World Class Qualifications design principles
- Examinations available in January and June
- Dedicated Subject Adviser

**“Grade 9 is not the same as A\*; it’s a new grade, designed to recognise the very highest performing students.”**

*Ofqual*

# The new 9-1 grading scale structure

The new grading scales gives teachers **more information about student's attainment** to help progression to A Level, and universities more information when looking at accepting students into HE.

The new **grade 9 represents a new level of attainment** and we've introduced this to really differentiate top performing students

There's **greater differentiation in the middle of the range of grades**, with three grades (4, 5 and 6) instead of two grades (grades B and C).

Using the same scale for Pearson Edexcel GCSE and International GCSE allows **clear comparison with English standards**, unlike the A\*-G scale.

NEW GRADING STRUCTURE	CURRENT GRADING STRUCTURE
9	A*
8	
7	A
6	B
5	
4	
3	D
2	E
1	F
	G
U	U

# Headline changes in the specification

- Some revisions to subject content; including a review of content split between Double Award and separate sciences.
- Slight changes to paper lengths and number of marks.
- No change to assessment style; or to assessment of practical skills.
- Introduction of Science (Single Award).
- Grading moves to new 9 to 1 system.



# Our suite of International GCSE Science

Our International  
GCSE Science  
specifications

**EXAM SERIES**  
**January**  
**May/June**

BIOLOGY

CHEMISTRY

PHYSICS

SCIENCE (DOUBLE AWARD)

SCIENCE (SINGLE AWARD) - NEW!

In addition, there is also an **International GCSE in Human Biology**

# INTERNATIONAL GCSE PHYSICS 2017

## Specification content

# Key dates for the new specification

	Legacy Specification	New Specification
September 2016	Yr 10 / 4th Form continue with specifications	Yr 9 / 3rd Form embark on specifications
September 2017	Yr 11 / 5th Form continue with specifications	All students (except students being taught over 1 year) now being taught specifications
May/June 2018	Final summer exam series for specifications	
January 2019	Final resit series	
May/June 2019	No examination series	First exam series for specifications

# Physics qualification content summary

<b>Forces and motion</b>		<b>Electricity</b>
<b>Solids, liquids and gases</b>		<b>Astrophysics</b>
<b>Energy resources and energy transfers</b>		<b>Magnetism and electro-magnetism</b>
<b>Radioactivity and particles</b>		<b>Waves</b>



# What changes in Physics?

Some general changes:

- Embedded practicals – it will be assumed students have performed these:
  - **12 in Physics**
  - **8 in Double Award**
- Collecting Double Award and Physics only material within each topic so that statements are clearer.

# What changes in Forces and Motion?

- Introduction of  $v^2 = u^2 + 2as$
- Understanding of vectors and scalars moved to Double Award
- All understanding of moments moved to Physics
- Astronomy section moved to Topic 8
- Greater clarification regarding the use of stopping distance, thinking distance and braking distance

# What changes in Electricity?

- Hazards of mains electricity has been removed
- Introduction of understanding of current conservation at circuit junctions and components in parallel having the same voltage
- All understanding of static electricity moved to Physics
- Understanding of volt as joule per coulomb moved to Double Award

# What changes in Waves?

- Diffraction has been removed
- Analogue and digital signals has been removed
- Ray diagrams for virtual image formation has been removed
- Introduction of ray diagrams for reflection and refraction
- Introduction of (qualitative) Doppler effect
- **All understanding of sound waves moved to Physics**

# What changes in Energy Resources and Energy Transfer?

- Introduction of emission & absorption of thermal radiation being linked to surface colour and finish
- Change in nomenclature used in energy to reflect recent IoP (Institute of Physics) guidance
- **All energy resources moved to Physics**

# Pause for thought

The Institute of Physics has recently issued new guidance on how the topic of energy should be taught in schools.

**Previously:** 9 types of energy:

- Kinetic
- Gravitational potential
- Elastic (strain)
- Chemical
- Nuclear
- Light
- Sound
- Thermal (heat)
- Electrical

# Pause for thought

The Institute of Physics has recently issued new guidance on how the topic of energy should be taught in schools.

## Now

8 energy **stores**:

- Kinetic
- Gravitational
- Elastic
- Chemical
- Nuclear
- Magnetic
- Electrostatic
- Thermal

4 energy **transfers**:

- Mechanically
- Electrically
- By heating
- By radiation (light & sound)

# Pause for thought

The Institute of Physics has recently issued new guidance on how the topic of energy should be taught in schools.

Energy can be stored in different forms (the stores) but, when transferred between forms, there are various mechanisms by which this can happen (the transfers).

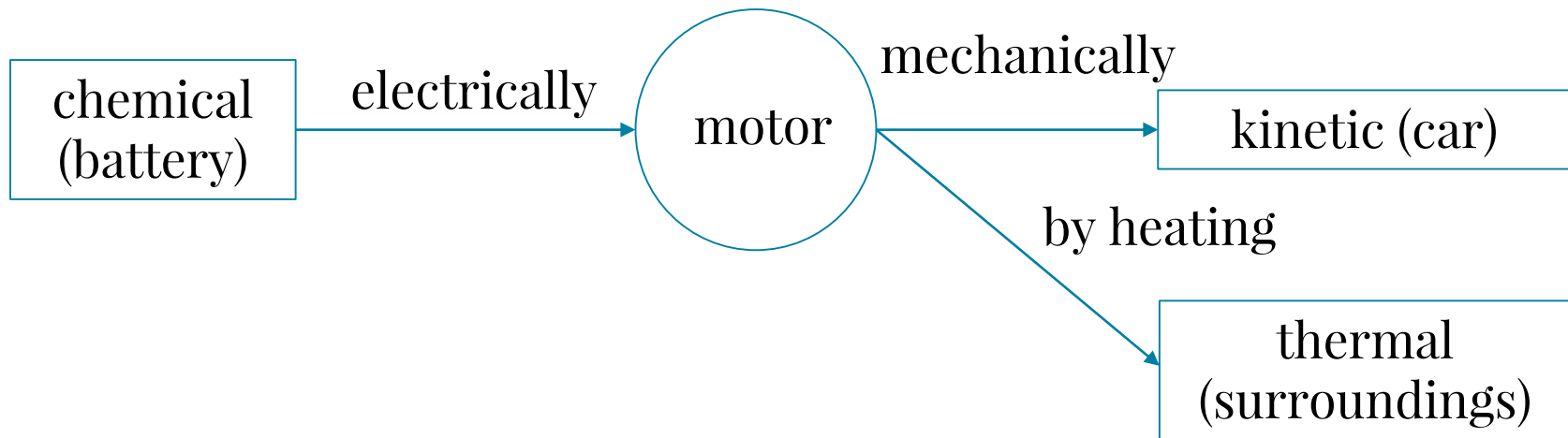
e.g. light is not a store of energy. Light is an electromagnetic wave. However, it is by light that energy can travel from the Sun to the Earth.



# Pause for thought

## Activity 1

How is energy transferred when an electric car accelerates?



# What changes in Solids, Liquids and Gases?

- Brownian motion has been removed
- Introduction of specific heat capacity (P)
- All understanding of ideal gases moved to Double Award

# What changes in Magnetism and Electromagnetism?

- All magnetism moved to Double Award

# What changes in Particles and Radioactivity?

- Rutherford scattering has been removed
- Introduction of the difference between contamination and irradiation
- Introduction of nuclear fusion

# What changes in Astrophysics?

- Motion in the universe has been moved from topic 1
- Introduction of stellar evolution
  - ❖ Relating star's colour to temperature
  - ❖ Life cycle of stars
  - ❖ Absolute magnitude (P)
  - ❖ Hertzsprung-Russell diagrams (P)
- Introduction of cosmology (P)
  - ❖ Big Bang theory and supporting evidence (P)
  - ❖ Quantitative Doppler effect for receding galaxies (P)
  - ❖ How red-shift supports the Big Bang theory (P)

# Pause for thought

## Activity 2

Discuss classroom activities that could be used to teach one (or more) statements from the new Astrophysics topic.

You may also find it beneficial to share resources (online or otherwise) that could be used when teaching this topic.

# INTERNATIONAL GCSE SCIENCES 2017

**Double Award (Science) &  
Single Award (Science)**

# Science (Double Award)

- The grouping of topics in a more logical way leads to more changes here than to separate sciences
- Students take Paper 1 in Biology, Chemistry and Physics
- Students achieve two grades, based on performance across all three papers
- The two grades may not be the same e.g. 87, 76
- Students may still progress to A level



# Science (Single Award)

This is a new qualification offered as part of the revised International GCSE Science suite.

- Approximately half the content of the Double Award specification
- Assessed in 3 papers, each of 60 marks and 1 hour 10 minutes duration
- Students would achieve a single grade, based on performance across all three papers
- Not designed for progression to A Level

# Pause for thought

## Activity 3

An editable scheme of work is provided as part of the teaching and learning materials that support this revised qualification.

The scheme of work was written by a teaching professional and includes many suggested activities to enrich the delivery of the specification in classrooms.

Discuss in groups how you would plan to teach the specification over a two year period.

- If topic by topic, which order would you choose?
- Is a spiral curriculum possible e.g. a little of each topic taught every year to make progress more gradual?

# INTERNATIONAL GCSE SCIENCES 2017

## **Assessment Model**

# Summary of assessment

## Familiar...

100% external assessment – with no coursework

Mixture of question types – all marked with 'points-based' mark schemes

Linear assessment – all exams take in the same exam session

Single tier of entry (untiered)

## And NEW...

Questions using maths skills  
(10% in Bio  
20% in Chem  
30% in Physics)

Each paper will have some longer questions (4 – 6 marks)

# Assessment objectives

**A01**

Knowledge and understanding of biology / chemistry / physics

**~40%  
of total marks**

**A02**

Application of knowledge and understanding, analysis and evaluation of biology / chemistry / physics

**~40%  
of total marks**

**A03**

Experimental skills, analysis and evaluation of data and methods in biology / chemistry / physics

**~20%  
of total marks**

# Assessment summary

**Paper 1** Two hours; 110 marks

**Paper 2** One hour and 15 minutes; 70 marks

**Both papers will contain a mixture of AO1, AO2 and AO3**

**The AO3 questions are likely to be in a practical context**

# Assessment summary

There will be two examination papers:

## **Paper 1**

Will NOT include the specification statements printed in BOLD

## **Paper 2**

Includes ALL the specification statements, including those printed in BOLD

**Both papers have similar question types**

**Biology 1****Biology 2**International GCSE  
Biology**Chemistry 1****Chemistry 2**International GCSE  
Chemistry**Physics 1****Physics 2**International GCSE  
PhysicsInternational GCSE  
Science (Double  
Award)

**Paper 2** will have a greater focus on the “bold” statements  
not present in Double Award



# INTERNATIONAL GCSE SCIENCES 2017

## **Practical and mathematical skills**

# Practicals in the specification

- Specifications contain a number of suggested practicals
- Further suggestions for practicals appear in an Appendix
- The suggested practicals would form a basis for practical work, on which schools would be encouraged to build
- Questions on exam papers test practical skills, rather than recall of specific techniques – so may be in the context of any practical activity

# Developing practical skills

Students should be familiar with a range of laboratory apparatus and its use, including the reading of scales.

1

Students should be able to plan an experiment and control variables, to collect and record data in a table, and to plot appropriate graphs with lines of best fit.

2

Students should be able to process and analyse data, to identify and account for anomalies, to evaluate data and methods, and to justify a conclusion.

3

The specification will include guidance on the use of terminology within practical and experimental work.

4

# Practical skills in examinations

**Students  
may be  
tested on  
their  
ability to:**

Describe and plan  
experiments

Draw conclusions which are  
consistent with the evidence,  
using scientific knowledge and  
understanding

Describe safe and  
appropriate practical  
techniques

Communicate findings from  
experimental activities using  
appropriate vocabulary,  
calculations and graphs

Analyse and interpret data  
from experimental  
activities

Evaluate data and methods

# Support for practical skills

- New “Practical Guide” offers support for each of the embedded practicals in the specification
- The Guide gives suggestions for carrying out the practical and health and safety guidance.
- There are also some questions based on the practical activity taken from previous examination papers.
- We will also be providing support in the use of terminology within practical work e.g. accuracy, validity

# Mathematical skills

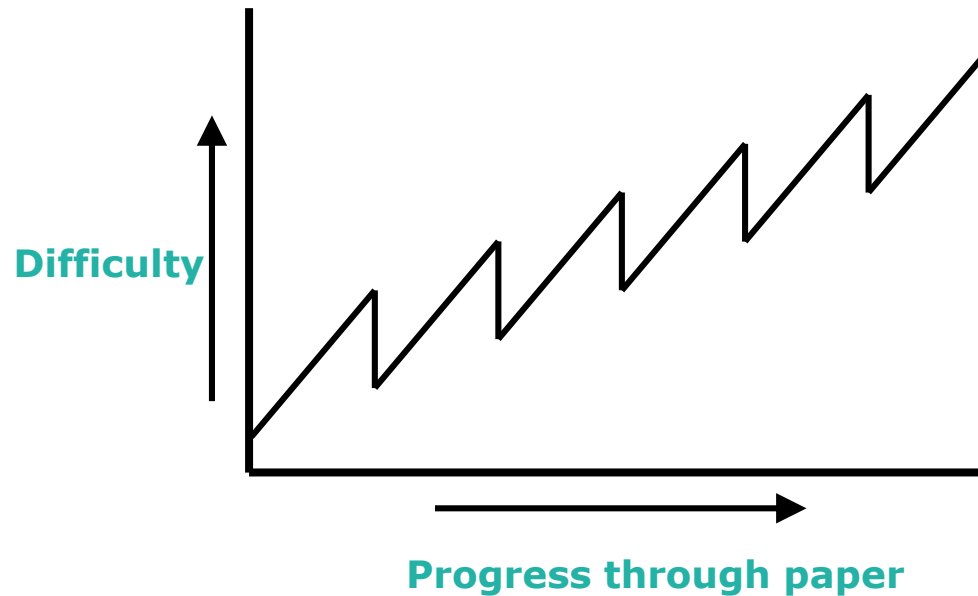
- A 'Maths for scientists' guide is available as part of the teaching resources on the qualification's web page.
- The development and use of relevant mathematical skills is key to progress in science subjects
- A list of mathematical skills which should be developed appears in the Appendix for each specification
- These skills will be tested in exam papers within the context of the science
- Assessment of mathematical skills will account for 10% of marks in Biology, 20% in Chemistry and 30% in Physics

# INTERNATIONAL GCSE SCIENCES 2017

## Examination Papers

# An ideal incline of difficulty

- Increase in difficulty within each question
- Increase in difficulty from first question to last question





# Exam question guide

The question style is similar to that of the existing International GCSE:

A small number of multiple choice questions

Short answer responses, usually worth 1 – 3 marks

Longer answer questions, up to 6 marks

All questions are **compulsory** and may cover **practical** situations as well as **areas** of theory

# Command words

- All our qualifications in science now use a common taxonomy for command words
- These can be found in an appendix at the back of the specification
- Students can still expect a range of command words across the demand range of the exam paper

# Specific assessment issues

- both Papers will require students to recall some equations (*these appear as “know and use...” in the specification*)
- others will be provided on a formula sheet (*these appear as “use....” in the specification*)

# 9-1 grading scale

- Broadly the same proportion of students will achieve a grade 4 and above as currently achieve a grade C and above
- Broadly the same proportion of students will achieve a grade 7 and above as currently achieve a grade A and above
- The bottom of grade 1 will be aligned with the bottom of grade G

New grading structure	Current grading structure
9	A*
8	
7	
6	B
5	
4	
3	C
2	
1	
U	U

**GOOD PASS (DfE)**  
5 and above = top of C and above

**AWARDING**  
4 and above = bottom of C and above

Source:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/465873/your\\_qualification\\_our\\_regulation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465873/your_qualification_our_regulation.pdf)

# A closer look at sample assessment materials

These questions are taken from the first set of SAMs, available now on the qualification webpage.

- Paper 1, Question 8 (Doppler effect)
- Paper 1, Question 11 (Stellar evolution)
- Paper 2, Question 6 (Cosmology)

A second set of (secure) SAMs will be released in 2018 for use in mock examinations.

# Pause for thought

## Activity 4

Design a mark scheme for the stellar evolution question (Paper 1, Question 11) – what points would you expect to be given credit by the examiner?

# Pause for thought

## Activity 5

You will now see some student responses to the SAMs questions seen earlier.

These questions specifically target new points from the specification.

Mark each of the responses using the relevant mark scheme.

You will have the opportunity to discuss your mark with the presenter and be told the true score, as given by an examiner.

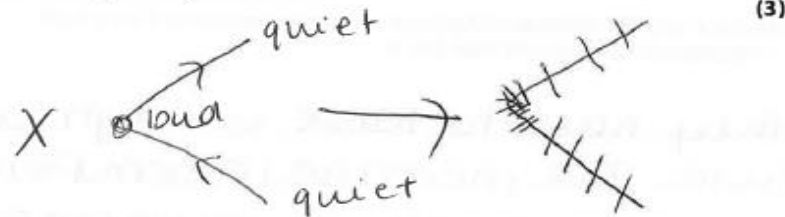
# Pause for thought

## Paper 1 Q8d – response 1

When the buzzer is thrown, student A notices that the sound produced changes.

Explain how the sound heard by student A changes.

You may include a diagram in your answer.



When the sound is closer to person A, it produces a larger sound as the buzzer is in close proximity meaning that the sound waves don't have to travel very far to reach the ear drum but as the ball is thrown the distance between buzzer and person A increases, meaning more particles to vibrate in order for the sound to be heard.

(Total for Question 8 = 10 marks)

X

0 marks



# Pause for thought

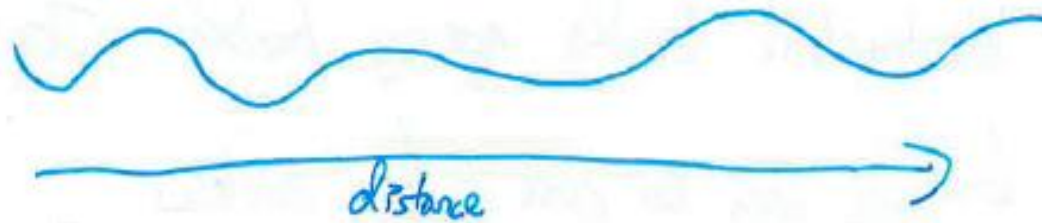
## Paper 1 Q8d – response 2

When the buzzer is thrown, student A notices that the sound produced changes.

Explain how the sound heard by student A changes.

You may include a diagram in your answer.

(3)



doppler shift, as the buzzer moves away, the wavelength increases.

1 mark

# Pause for thought

## Paper 1 Q8d – response 3

When the buzzer is thrown, student A notices that the sound produced changes.

Explain how the sound heard by student A changes.

You may include a diagram in your answer.

(3)

As the buzzer approaches student B the waves become blue shifted (squashed) and so the <sup>amplitude and frequency</sup> frequency of the wave <sup>increases</sup> changes, altering the sound as well. Similarly, as the buzzer moves away from A the waves become red shifted and the <sup>and amplitude</sup> frequency decreases and so the sound changes.

1 mark

# Pause for thought

## Paper 1 Q8d – response 4

When the buzzer is thrown, student A notices that the sound produced changes.

Explain how the sound heard by student A changes.

You may include a diagram in your answer.

(3)

The sound heard by student A will get lower as the wavelength of the sound increases as it moves away from her. This is because the wave is being stretched out as it moves away.

1 mark

# Pause for thought

## Paper 1 Q8d – response 5

When the buzzer is thrown, student A notices that the sound produced changes.

Explain how the sound heard by student A changes.

You may include a diagram in your answer.

(3)

In The sound shifts here to a lower frequency, because as the buzzer progresses away from the student A, the wave length becomes longer, but the speed remains constant

3 marks

# Pause for thought

## Paper 1 Q11 – response 1

11 Main sequence stars can vary in brightness, colour and mass.

Describe the evolution of both low mass stars and high mass stars after they join the main sequence.

(6)

high mass stars ~~have~~ live very short lives as they have ~~at~~ a bigger mass and require more energy unlike low mass stars that can live for millions and millions of years as they have a smaller mass and require less energy so don't get used up. Low mass stars are at the bottom left of the Hertzsprung Russell diagram and the high mass stars are at the top right of the diagram.

X

0 marks

# Pause for thought

## Paper 1 Q11 – response 2

11 Main sequence stars can vary in brightness, colour and mass.

Describe the evolution of both low mass stars and high mass stars after they join the main sequence.

low mass stars become red giants, high mass stars become red supergiants. (6)

2 marks



# Pause for thought

## Paper 1 Q11 – response 3

11 Main sequence stars can vary in brightness, colour and mass.

Describe the evolution of both low mass stars and high mass stars after they join the main sequence.

(6)

for both stars, long  
~~A low mass star has a short life.~~ When the hydrogen  
 in the core runs out the radiation pressure stops and  
 the star collapses inwardly due to gravity.  
 The temperature then rises until hydrogen can start  
 burning in a shell around an inert helium core. Low mass  
 stars have a long life. The outer layers of a  
 low mass star is blown off in a shell of expanding  
 gas called a planetary nebula and the inner  
 core forms a white dwarf or a red giant depending  
 on the mass of it. A large mass star's outer  
 core explodes violently as a supernova  
 and the inner core forms a supernova remnant.  
 This is either a neutron star or a black  
 hole (if the original star has a mass greater  
 than three solar masses).

4 marks

# Pause for thought

## Paper 1 Q11 – response 4

11 Main sequence stars can vary in brightness, colour and mass.

Describe the evolution of both low mass stars and high mass stars after they join the main sequence.

(6)

Low mass stars stay in main sequence for longer ✓ as although they have less fuel they don't use it as quickly as high mass stars. ~~Low mass stars~~  
High mass stars, once they burn through their fuel, will ~~expand~~ collapse and expand once helium is beginning to be used. Redgiants or ~~Red~~ Red supergiants

1 mark



# Pause for thought

## Paper 1 Q11 – response 5

11 Main sequence stars can vary in brightness, colour and mass.

Describe the evolution of both low mass stars and high mass stars after they join the main sequence.

(6)  
The low mass stars have quite a long life for a star, but when <sup>nearly</sup> all hydrogen has been used inside of the core, and Iron starts to appear inside of the star, it becomes a red giant because it starts expanding rapidly. After that, it will shrink to a white dwarf which is a size of a planet.  
Large stars have a shorter life, and then when iron starts to appear, it expands rapidly – and then either blows up in a super nova, or is the star was absolutely gigantic, it would turn into a black hole with infinite density.

5 marks

# Pause for thought

## Paper 2 Q6ci-ii – response 1

- (i) Calculate the change in wavelength,  $\Delta\lambda$ , for the line at the red end of the spectrum.

$$\text{wavelength} = \frac{c}{\text{frequency}}$$

$$760 - 655$$



(2)

$$\Delta\lambda = 105$$

$$\Delta\lambda = 105 \text{ nm}$$



2 marks

- (ii) Calculate a value for the recessional velocity of the quasar using your value for  $\Delta\lambda$ .

speed of light in free space,  $c = 3.0 \times 10^5 \text{ km/s}$

$$\frac{105 \times 3.0 \times 10^5}{655} = \frac{v}{c} \times c$$

$$= 31500000$$

(3)

$$\text{recessional velocity} = 48091.6 \text{ km/s}$$



3 marks

# Pause for thought

## Paper 2 Q6ci-ii – response 2

- (i) Calculate the change in wavelength,  $\Delta\lambda$ , for the line at the red end of the spectrum.

(2)

~~$$760 - 655 = 105$$~~

$$760 - 655 = 105$$

$$\Delta\lambda = 105 \text{ nm}$$

2 marks

- (ii) Calculate a value for the recessional velocity of the quasar using your value for  $\Delta\lambda$ .

speed of light in free space,  $c = 3.0 \times 10^5 \text{ km/s}$

(3)

$$\frac{105}{655} \times 3 \times 10^5 = 48092$$

$$\approx 48000$$

$$\text{recessional velocity} = 48000 \text{ km/s}$$

3 marks

# Pause for thought

## Paper 2 Q6ci-ii – response 3

- (i) Calculate the change in wavelength,  $\Delta\lambda$ , for the line at the red end of the spectrum.

$$770 - 655 = 115$$

X

(2)

$$\Delta\lambda = 115 \text{ nm}$$

X

0 marks

- (ii) Calculate a value for the recessional velocity of the quasar using your value for  $\Delta\lambda$ .

speed of light in free space,  $c = 3.0 \times 10^5 \text{ km/s}$

(3)

$$\frac{115}{655} = \frac{\text{recession}}{c} \quad \text{DWF}$$

$$0.175572519$$

$$\text{recessional velocity} = 52672 \text{ km/s}$$

✓✓✓



3 marks

# Pause for thought

Paper 2 Q6d – response 1

Explain what information the two spectra give about the movement of the galaxy.

(3)

the left side of galaxy has more redshift  than right , they both have more than centre. the sides are expanding around the centres.

1 mark

# Pause for thought

## Paper 2 Q6d – response 2

Explain what information the two spectra give about the movement of the galaxy.

(3)

The galaxy is spinning ✓ anti-clockwise as the right side is redshifted ✓ therefore moving away whilst the left is blue shifted ✓ and is moving towards us.

3 marks

# Pause for thought

Paper 2 Q6d – response 3

Explain what information the two spectra give about the movement of the galaxy.

(3)  
It is rotating ✓ anti-clockwise, because the right side of the galaxy is more red-shifted ✓ than the left side, which means that the right side is going away from us, and the left side is moving closer.

2 marks

# Resources

We offer a range of free and paid for resources **for International GCSE in Physics**. They have been designed to support teachers to improve learner outcomes.





# Support overview

Getting Started Guide  
& Scheme of Work

Getting Ready to  
Teach Events

Subject interpretation  
of transferable skills

Subject Advisor

Results Plus

Regional Support  
Manager

Curriculum Matched  
Publishing

Topic Guides

Additional SAMs

Exemplar marked  
responses with  
commentaries

ResultsPlus &  
Examwizard

Access to Scripts

# Links to free resources available on the website

- [Specification](#)
- [Sample Assessment materials \(SAMs\)](#)
- [Getting Started Guide](#)
- [Schemes of work](#)
- [Mapping documents](#)
- Guide for [Practical](#) work and [Mathematics](#)
- Topic Guides ([Astrophysics](#)) ([Energy stores and transfers](#))
- [Information on transferable skills](#)

# Published resources

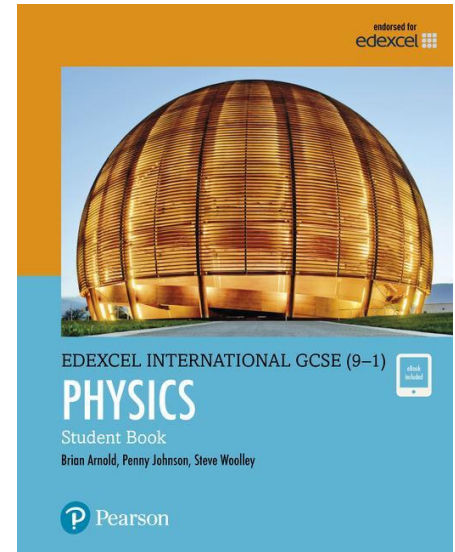
We are committed to helping teachers deliver our Pearson Edexcel qualifications and helping students to achieve their full potential.

To do this, we aim for our qualifications to be supported by a wide range of high-quality resources, produced by a range of publishers.

However, it is not necessary to purchase endorsed resources to deliver our qualifications.

# Pearson published resources

- Each book provides free access to an ActiveBook, a digital version of the Student Book, which can be accessed online, anytime, anywhere supporting learning beyond the classroom
- Chapters are mapped closely to the specification to provide comprehensive coverage
- Learning is embedded with exercises, source materials and exam practice throughout
- Transferable skills, needed for progression into higher education and employment, are signposted allowing students to understand, and engage with, the skills they're gaining
- A fully integrated Progression Map tool allows quick and easy formative assessment of student progress, linked to guidance on how to personalise learning solutions.
- Reviewed by a language specialist to ensure the book is written in a clear and accessible style for students whose first language may not be English



# Pearson published resources

## Student Book

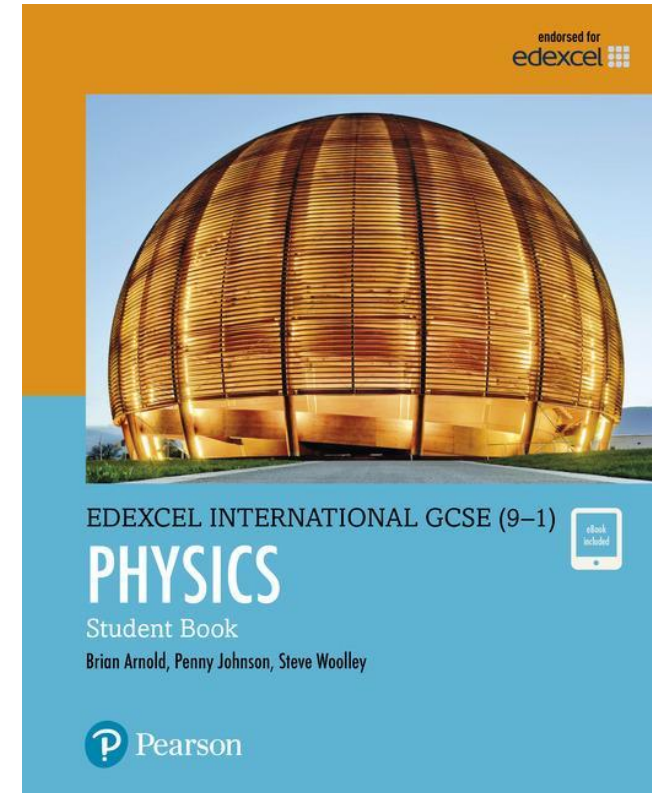
International GCSE Physics Student Book  
ISBN: 9780435185275  
£28.99

## Teacher Pack

Online, subscription including videos, worksheets, lesson plans and other support to help you deliver the International GCSE in Physics.

Online Teacher Resource Pack Physics  
ISBN: 9780435185244.  
£100.00

For more information and access to samples visit: [www.pearsonglobalschools.com](http://www.pearsonglobalschools.com)





**ResultsPlus is the free online results analysis tool for teachers - it provides analysis features that other similar solutions don't**

- Provides a detailed breakdown of student performance in Edexcel exams.
- Helps identify topics where the student can benefit from further learning and allows this knowledge to inform teaching strategies and approaches.
- Provides a comparison of student performance at regional level.
- Allows you to view your school's performance against other Pearson Edexcel schools in your country. You can also find student results analysis from their previous Pearson Edexcel school.
- Mock exams results can also be fed into the system to produce an analysis.
- [ResultsPlus Direct](#) gives your students access to their final grades and performance breakdown, wherever they are.
- Sign up for free ResultsPlus account in just a few quick and easy steps [here](#).
- Access additional video guides here:
  - [ResultPlus - Individual Student Analysis](#)
  - [ResultsPlus - Cohort Analysis](#)
  - [ResultsPlus - Mock Analysis](#)
  - [ResultsPlus - Global Analysis](#)



**examWizard is a free tool for teachers containing a bank of past paper questions to help create their own bespoke mock exams and tests to focus on particular topic areas as needed:**

- Use existing mark schemes for accurate marking
- Use existing examiner report for insight
- Use the results to understand where students need more support, informing teaching strategies.

**Unlike other similar question banks, ExamWizard is:**

- Available free to all Edexcel centres
- Updated with latest questions faster, following the exam series
- One stop shop for assessment material with access to whole past papers and examiner reports as well as the ability to construct bespoke ones easily with content tagged to specific attributes.

# New Access to Script (ATS) Online Portal

**Access to Scripts (ATS) is a free online portal which allows teachers to immediately access electronically marked exam papers**

Provides enhanced transparency and

- Offers transparent approach to marking process
- Provides better understanding of marking before requests for enquiries about results are made
- Provides excellent aid for teaching and preparing other cohorts for examinations by helping you to evaluate a student's performance on particular questions in relation to what they have been taught.

Available instantly from results day for all our examination series, for a defined window, you can view and download scripts which have been marked online free of charge from our Self-Service Portal.

**For more information on ATS, and the post results windows, visit our [post-results pages here](#).**





# Pearson International Schools Community

## Connect with international teachers around the world

- Connect with other teachers working in international schools and join groups who have shared interests, subjects or location
- Read topical news and articles and share yours
- Advertise jobs at your school or find job opportunities
- Download free resources
- Sign up for events.

**Sign up today at:**  
**[community.pearsoninternationalschools.com](https://community.pearsoninternationalschools.com)**



# Progression to university

- Our qualifications are accepted by universities all over the world including top institutions in the UK, United States, Australia, Canada and Singapore.
- Universities recognise and trust the quality of the Pearson Edexcel qualifications and accept them as being comparable to nationally recognised qualifications, offering excellence in learning and achievement.
- Students can equally pursue undergraduate study at a university closer to home as our qualifications are recognised for entry in their region of study.
- We provide a range of free support to help students progress, such as country study guides, case study blogs and interactive webinars.
- We have a proactive programme of student engagement activities such as advice from higher education experts, a specialised website page and social media communities.
- We are closely connected with higher education stakeholders.

Learn more about progression and recognition [here on our website](#).

# Other useful links

## **1. Grade Boundaries**

This page shows the minimum marks needed to achieve a certain grade for all UK and international examinations. Also refer to the examiners report which is available for download with other documents.

## **2. Examination Results Statistics**

Results statistics summarise the overall grade outcomes of candidates sitting Pearson Edexcel examinations.

# Contact your dedicated Subject Advisor

Your Science Subject Advisor is Irine Muhiuddin

Email: [TeachingScience@pearson.com](mailto:TeachingScience@pearson.com)

Phone: **+44 (0)20 70102190**

Twitter: [@PearsonSciences](https://twitter.com/PearsonSciences)

[Science community](#) – Join the community for a place to chat, share resources and ideas, ask questions and start your own discussions

Any final questions?

**Thank you for coming –  
and have a safe journey home!**

Please fill in your evaluation forms

**We value your  
feedback!**





# Thank you for your time

Find out more about us at:  
<http://qualifications.pearson.com>