

# Isaac Physics

Follow the instructions to access the correct work

# Access the site

Make sure that you log in so that your progress is saved



isaac Physics. You work it out.

Isaac Chemistry Questions Concepts Log in

See [how Isaac Physics can support your teaching and learning](#) during the response to COVID-19.

MENU Mastering Physics by Solving Problems: from School to University!

**LEARN**

- GCSE
- A Level
- Student Support

**TEACH**

- Teacher Features
- Teacher CPD
- Teacher Support

isaac computer science

Preferably set up an account then go to *my account/teacher connections*.

[Home](#) > [My account](#)

## My account

**Profile**

[Account security](#)

[Teacher connections](#)

[Email preferences](#)

If it works you should see my name here

Enter this code here:

BZQWXT

[Profile](#)

[Account security](#)

**Teacher connections**

[Email preferences](#)

### Teacher connections ?

Enter the code given by your teacher to create a teacher connection and join a group.

Enter your code in here

**Connect**

**Teacher connections**

**D. Clarke**

**Revoke**

# Click:GCSE

The screenshot shows the Isaac Physics website interface. At the top left is the Isaac Physics logo with the tagline "Physics. You work it out." To the right are navigation buttons for "Isaac Chemistry", "Questions", "Concepts", and "Log in". A yellow banner below the header contains the text: "See [how Isaac Physics can support your teaching and learning](#) during the response to COVID-19." Below this is a navigation bar with a "MENU" button, the text "Mastering Physics by Solving Problems: from School to University!", and a search icon. A blue arrow points down to a dropdown menu. The dropdown menu is divided into two columns: "LEARN" and "TEACH". The "LEARN" column includes "GCSE" (which is highlighted with a blue arrow), "A Level", and "Student Support". The "TEACH" column includes "Teacher Features", "Teacher CPD", and "Teacher Support". At the bottom of the page, there are three small images: a person pointing at a whiteboard, the Isaac Physics logo with the text "isaac computer", and a stylized eye icon.

isaac Physics. You work it out.

Isaac Chemistry Questions Concepts Log in

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MENU Mastering Physics by Solving Problems: from School to University! Q

LEARN GCSE A Level Student Support



TEACH Teacher Features Teacher CPD Teacher Support

isaac computer

# Click: Preparation for A level

The screenshot shows the Isaac Physics website interface. At the top left is the Isaac Physics logo with the tagline "Physics. You work it out." To the right of the logo are navigation tabs for "Chemistry", "Questions", "Concepts", and "Log in". Below the logo is a "MENU" button and a search icon. The main content area is titled "GCSE Resources" and features a grid of six hexagonal resource cards: "Physics Skills Mastery" (with a book icon), "Problem Solving" (with a 'Q' icon), "Mentoring Schemes" (with a graduation cap icon), "Preparation for A Level" (with a 'Q' icon), "Quick Quizzes" (with a 'Q' icon), and "Workshops" (with a group of people icon). A large blue arrow points down to the "Preparation for A Level" card. The background of the page has a faint, repeating pattern of physics-related icons.

# Click: GCSE to A Level transition

**Boards for Lessons**  









The following boards use questions from the Question Filter and the Pre-University Skills Book, 2nd edition and are ideal to use in lessons, for homework or when revising.


Some of the questions are of a synoptic nature and will require use of physics from other parts of the syllabus. When selecting questions for a particular lesson, questions have been selected according to topics that are likely to have been covered by that stage in the course. For example, if a question requires knowledge of both the equations of motion and Newton's 2nd Law, then it has been included on the board for Newton II but not equations of motion, as Newton II is typically taught after the equations of motion.

No Level 6 questions have been included in these boards.

**Students:** Some boards contain questions of a range of levels, for example there might be one question of each level 1, 2, 3 and 4. Have a go at the level most appropriate to your ability, for example if you try the level 3 question but find it too difficult, try the level 2 question instead.



**Teachers:** These boards can be copied and edited, click here to find out how. Also note that you can put together your own selection of questions using the 'Create a Board' option in Set Assignments.

<b>GCSE Example Materials</b>	
<b>GCSE to A Level transition</b>	
<b>Mechanics</b>	
<b>Materials</b>	
<b>Waves and Light</b>	
<b>Circuits</b>	
<b>Further Mechanics</b>	
<b>Fields</b>	



# Click: View (for the gameboard you wish to do)

## Boards for Lessons



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GCSE Example Materials	▼
GCSE to A Level transition	▲

**Gameboard: GCSE to A level transition - skills [Assign](#) | [View](#)**

- Pre-University Skills Mastery: A1 Using & Rearranging Equations
- Pre-University Skills Mastery: A3 Standard Form and Prefixes
- Pre-University Skills Mastery: A4 Converting Units
- Pre-University Skills Mastery: A5 Gradients and Intercepts of Graphs
- Pre-University Skills Mastery: A6 Equations of Graphs
- Pre-University Skills Mastery: A7 Area Under the Line on a Graph

**Gameboard: Getting to Grips with Significant Figures [Assign](#) | [View](#)**

- Sig fig - practice
- Sig fig - mastery

# Click: The hexagon (for each task)

The screenshot shows a web interface for physics resources. At the top left is a 'MENU' icon. At the top right is a search icon. Below these is a search bar containing a 'Physics' category icon and a 'Choose your questions' button. A green dropdown arrow is positioned above the text 'GCSE to A level transition - skills' and 'Save board or set as assignment'. A large blue arrow points down to the first hexagon in a grid of seven hexagons. The hexagons are arranged in two rows: the top row has four hexagons and the bottom row has three. The first six hexagons are purple and labeled 'Essential Pre-Uni Physics A1' through 'A7'. The seventh hexagon is orange and labeled 'Problem Solving How to solve physics problems'.

MENU

Physics

Choose your questions

GCSE to A level transition - skills

Save board or set as assignment

Physics

Essential Pre-Uni Physics A1

Physics

Essential Pre-Uni Physics A3

Physics

Essential Pre-Uni Physics A4

Physics

Essential Pre-Uni Physics A5

Physics

Essential Pre-Uni Physics A6

Physics

Essential Pre-Uni Physics A7

Problem Solving

How to solve physics problems



# Work your way through the problems

## Q: Essential Pre-Uni Physics A1



### A1 Using & Rearranging Equations

Skill master = 9/12

Use the following equations:

$s = ut$	$a = \frac{v-u}{t}$	$F = ma$	$v = f\lambda$
$V = IR$	$P = IV$	$E = Pt$	$Q = It$

where the letters have the following meanings:

$s$ = distance	$u, v$ = velocity	$t$ = time	$m$ = mass
$V$ = voltage	$I$ = current	$F$ = force	$a$ = acceleration
$Q$ = charge	$E$ = energy	$P$ = power	$f$ = frequency
$\lambda$ = wavelength	$R$ = resistance		

Part A

A1.1



Answer Now

$F = 3.0\text{ N}$ ,  $m = 2.0\text{ kg}$ , what is  $a$ ?

Value

Units

Please answer to an appropriate number of

Please choose an