GCSE Physics Ninja

Smarter Learning - Boost your Grade

Active Revision Booklet

AQA Unit P1 (Higher) Science A / GCSE Physics

Name: _____

www.GCSEPhysicsNinja.com

How to use this Ninja booklet

- For best results, try to complete the flashcards of each section in order.
- 1. RESEARCH the question using your physics text books or other sources.
- 2. CHECK your answer at www.GCSEPhysicsNinja.com (you'll need your login details)
- 3. WRITE your flashcard answer on the Answer page provided. Use colour & pictures! You'll get the most benefit by writing out the answer in full.
- 4. TEST yourself 3 TIMES on each flashcard over a few weeks. Each time you test yourself and answer correctly, tick a Ninja Check box!

Ninja Check 

"Tomorrow's victory is today's practice"

When working out CALCULATIONS, remember to...

"Do L.E.S.S."

Diagram... This can be help you to understand the question.

List your data... Write down what you **know** from the question and what you **want** to find. Remember to include the **units** - you may need to convert!

E.g. $m = 200g = 0.2kg$, $a = 4m/s^2$, $F = ?\ N$

Equation... Write down a formula that fits your list of data: $F = m \times a$

Solve... Sub-in the numbers from your list and solve: $F = 0.2 \times 4 = 0.8$

State the answer... Use the correct units (check your **L**ist): $F = 0.8\ N$

Heat Transfer

Q No.1

HEAT TRANSFER

HEAT ENERGY CAN TRAVEL THROUGH EMPTY SPACE AS _____ RAYS, WHICH ARE A TYPE OF _____ RADIATION (LIKE LIGHT).

ALL OBJECTS ABSORB AND ____ THESE RAYS.

THE ____ AN OBJECT IS, THE MORE _____ RAYS ARE EMITTED PER SECOND.

Ninja Check →

No.1

GCSEPhysicsNinja.com

HEAT TRANSFER

Q No.5

HEAT TRANSFER

HOW DOES **HEAT ENERGY** TRAVEL THROUGH A **SOLID?**

ALL **METALS** ARE GOOD _____ OF HEAT BECAUSE...?

PLASTICS, WATER AND AIR ARE POOR _____ OF HEAT (GOOD _____) BECAUSE...?

Ninja Check →

A

No.5

GCSEPhysicsNinja.com

HEAT TRANSFER

Equations Given in the Exam

$E = m \times c \times \theta$	E energy transferred m mass θ temperature change c specific heat capacity
Efficiency = $\frac{\text{useful energy out}}{\text{total energy in}}$ (x 100%)	
Efficiency = $\frac{\text{useful power out}}{\text{total power in}}$ (x 100%)	

More equations overleaf →

Equations Given in the Exam

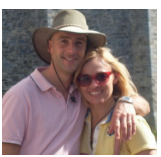
...continued

$E = P \times t$	E energy transferred P power t time
$v = f \times \lambda$	v speed f frequency λ wavelength

Ask Olly

- Login to GCSEPhysicsNinja.com to ask Olly a question about any of these flashcards.
- Click on the relevant flashcard page, type in your question at the bottom and you'll receive an answer within 24 hours.

Olly Wedgwood and his wife Lee-Anne run Wedgwood Tutors from their home in Hertfordshire, UK. As well as tutoring his ninja students, Olly is a jazz pianist, singer and composer.



"A journey of a thousand miles begins with a single step"

www.GCSEPhysicsNinja.com