GOOD DESIGN TO HELP YOU ...

The essential
physics for the
exam

MOTION, SCALARS AND VECTORS

Topic guide

- 1 Velocity and acceleration
- 2 Newton's laws of motion
- 3 Momentum
- 4 Scalars and vectors
- 5 Uniformly accelerated motion

Diagrams of useful or difficult ideas.

Subheads break content
into manageable units

Real GCSE questions:
Hone your skills on the
real thing

Model answers
showing how to
set out your
answers in the
exam

MORE questions
for you to try

Self check
sections
— tell you how you
are doing
— see how you
cope with
higher grade
material
— Answers and
Guide

Explanations to help you
follow the answers are in
square brackets.

HOW

HOW TO REVISE . . .

Understanding better

When revising, many people find it helpful to write as they work. Writing as you revise will help you to concentrate and also help you to remember what you have been revising. You are much more likely to remember something you have written than something that you just looked at in a book. In particular, make sure that when you have revised a section of the work, you have understood the basic laws, definitions and equations, and can use them.

Short bursts

You will probably find you can concentrate better and learn faster if you revise hard for a number of fairly short sessions rather than for one long one. Most people find that they get more revision done in four half-hour sessions, with breaks between them, rather than in one two-hour session.

Memory building

Your memory recall of the work you have revised will be improved immensely if you look through it at regular intervals. Suppose you do an hour's revision. If you spend just five minutes revising the same work again the next day and another five minutes a few days later, your memory recall at some future date will be very greatly improved. The important point to remember about revision is that it should occur regularly for short periods rather than for one long period; also that work should be reviewed briefly shortly after you have done it and again a few days later.

Revision tips

- 1 Learn thoroughly the summaries at the beginning of each chapter.
- 2 Answer the questions in the Self Check sections, which are in each chapter at the end of the examples. *Do them without looking at the solutions!*
- 3 A quick way of revising many of the basic principles is to go through the book answering the multiple choice questions which are at the beginning of each section of worked examples and each section of questions.
- 4 To enable you to revise a particular topic there is an index at the end of the book.
- 5 The questions at the end of each chapter are to give you practice at answering examination questions.
- 6 *Write* notes on the key material, *repeat* without looking at the notes, and *repeat* again a few days later.

Check your syllabus

Check your own syllabus carefully. As syllabuses change from year to year, it is worth writing to your examination board to get the latest syllabus and past papers.

Opposite is a table of the main nine syllabuses –

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WHAT THE EXAM BOARDS WANT . . .

Chapter 12

Transistors

Electronic systems

LEAG (A and D)	LEAG (B and E)	MEG	MEG (Nuffield)	NEA (A)	NEA (B)	SEG (A)	SEG (B)	WJEC
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✓	✓		✓	✓				✓
	✓	✓	○	✓	✓			✓

Chapter 13

Electrostatics

Cathode ray oscilloscope

Radioactivity

Nuclear energy and power

✓	✓		✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	

○ = optional

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(LEAG)
c/o University of London School
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University of London Publications
Office
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Stag Hill House
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c/o Joint Matriculation Board
Oxford Road
Manchester M15

Midland Examining Group (MEG)
c/o University of Cambridge Local
Examinations Syndicate
Syndicate Buildings
Hills Road
Cambridge CB1 2EH

Welsh Joint Education Committee
(WJEC)
245 Western Avenue
Cardiff CF5 2YX

Northern Ireland Schools Examinations
Council (NISEC)
Examinations Office
Beechill House
Beechill Road
Belfast BT9 4RS

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WORK OUT

PHYSICS

GCSE

John Keighley

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To Biz for her patience, kindness and help.

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