

"Success is not final, failure is not fatal: it is the courage to continue that counts." – Winston Churchill

Year 7 W&AW 2 Revision Topics

Revising for a maths exam is not about simply reading through notes. To improve and make progress with maths you need to 'do maths' – do lots of questions on topics that you need to become more confident with.

Use these codes in the Sparx Maths Independent Practice section of the website to enable you to effectively revise for your assessment and showcase your true mathematical ability.

Topic	Sparx Maths Independent Practice Codes
Time	M515, M627, M747, M892, M963
Place Value	M522, M704, M763
Rounding	M111, M131, M431, M994
Factors & Multiples	M823
4 Operations	M429, M928, M152, M347, M187, M803, M262, M354, M491
Directed Numbers	M106, M288, M527
Order of Operations	M521
Units of Measurement	M530, M761, M772, M774
Perimeter	M635, M690
Area	M269, M291, M303, M390, M610, M705, M996
Substitution	M208, M327, M417, M979
Collecting Like Terms	M531, M795, M949
Solving Equations	M387, M634, M647, M707
Equivalent/Simplifying Fractions	M410, M671
Improper Fractions & Mixed Numbers	M601
Fractions, Decimals & Percentages	M264, M958
Express a Number as a Percentage	M235
Percentages of Amounts	M437, M905

NOTE: These are all the topics we have covered this year, some aspects of each of the topics will be assessed in the assessment

"Success isn't overnight. It's when every day you get a little better than the day before. It all adds up." – Dwayne Johnson

How to Log Into Sparx Maths

Sparx Maths

Student Login

You're logging in to Sparx at **Ormiston Chadwick Academy**.
[Not your school?](#)

Log in using your username and password.

Your username will usually be your name and surname without spaces.

Log in to Sparx using Microsoft

or

Use your Sparx login

Username:

Password: [Show](#)

[Forgotten Sparx login details?](#) Log in

If you are logged into your school emails on the device, you can just click this button to log in

[New Sparx user?](#)

If you can't remember your password, click this button and type in your details – this will send an email to your teacher getting them to reset your password.

Click the button again in a short while and it will then let you reset your password (make it memorable)

If you have never logged in before, click this button and follow the steps

You will then be brought to the following page where you will find any compulsory homework set for you by your teacher – you need to be completing this weekly to ensure you are retrieving the knowledge that you have learnt throughout the year.

Sparx MathsO XP Teacher

- Compulsory
- XP Boost
- Target
- Independent Learning

Hey Teacher,

This is your personalised Compulsory homework. You need to answer every question correctly to complete it.

0/1

Introducing Sparx Maths Not started

About Sparx Maths

(1:35)

Start >

Try some questions

(about 5 minutes)

Locked

Sparx Maths Tips

(0:39)

Locked

If you haven't been on Sparx Maths yet this year, you will need to do this short tutorial to help you understand how the website works.

How to do Sparx Maths independent Practice

Sparx Maths Hey Teacher, This is your personalised Compulsory homework. You have 0/1

On this dropdown, you can change the curriculum level (Sparx Maths sometimes categorises things at a different stage than we do)

You can change the difficulty level to suit your confidence level

From the homepage, click the 'Independent Learning' tab to open this page.

XP Boost
Target
Independent Learning

Introducing Sparx Maths (Not started)

About Sparx Maths (1:35) Start >

Try some questions (about 5 minutes) Locked

Sparx Maths Tips (0:39) Locked

Activate Windows
Go to Settings to activate Windows.

Sparx Maths Independent Learning

Independent Learning

Find topics My activity

Search for topics: M354 Your curriculum: Key Stage 3 Default level: Level 3

1 topic found

Number 3 Dividing
Using a written method to divide integers - M354

Ratio and Proportion 3:2

Geometry

Probability

Statistics

Type in the code from the revision list to bring up the revision for that topic

Sparx Maths Independent Learning

Independent learning > Number > Dividing

Using a written method to divide integers - M354 Level 2

Show building blocks

Using a written method to divide integers

Introduce

Strengthen

Deepen

Question 1 Answer

Question 2 Answer

Question 3 Answer

Question 1 Answer

Question 2 Answer

Question 3 Answer

Question 1 Answer

Question 2 Answer

Question 3 Answer

This will bring up the task - click on each question to revise the topic in more depth

If you are finding it difficult you can try some of the 'building blocks' tasks which will help you with the prior knowledge you need to access the main task

How to complete a Sparx Maths task

BEFORE beginning the task you need to have paper to do your working out and to write down the bookwork codes.

The screenshot shows the Sparx Maths interface for a task titled "Using a written method to divide integers - M354". The task is at Level 2. Below the title, there is a section labeled "Show building blocks" which contains three levels of questions: "Introduce", "Strengthen", and "Deepen". Each level has three questions, each with an "Answer" button. A lightbulb icon is positioned to the right of the "Strengthen" section.

This will bring up the task – click on each question to revise the topic in more depth

If you are finding it difficult you can try some of the 'building blocks' tasks which will help you with the prior knowledge you need to access the main task

The screenshot shows a task page for "1A" with a "Bookwork code: 1A" and a "Calculator not allowed" warning. The instruction says: "Copy out the calculation below as neatly as you can. Work out the answer." The calculation is $2 \overline{)82}$. To the right is a multiplication table:

1	×	2	=	2
2	×	2	=	4
3	×	2	=	6
4	×	2	=	8

Below the grid are "Zoom" and "Watch video" buttons. An "Answer" button is at the bottom right.

Write down the bookwork code before starting the question (you will be asked for this later)

If you are stuck, watch the video which will be a similar question with different numbers – make notes to help you understand and then try the question again

Work out the answer on your paper, note it down then click here to type in your answer

"Mistakes are the stepping stones to wisdom." - Oprah Winfrey

Key Examples for Year 7 W&AW 2

TIP: To find the time passed, count to the next hour, then the hour needed, then the final time

e.g. How many minutes are between 5:24pm and 7:10pm?

+ 36 mins + 60 mins + 10 mins

5:24pm → 6:00pm → 7:00pm → 7:10pm

$36 + 60 + 10 = 106$ mins

1, 2, 3, 4 "Round down/off"
5, 6, 7, 8, 9 "Round up"

TIP: Draw the rounding line after the 'rounding column'

e.g. Round 7562 to the nearest 100

7562
= 7600

e.g. Round 18329 to the nearest 1000

18329
= 18000

TIP: When rounding down, the digits on the left of the rounding line stay the same (the ones on the right become zeros)

TIP: Factors are numbers that fit into a number without remainders

e.g. List the factors of 36

Find the numbers that 'multiply' to make 36

$1 \times 36 = 36$
 $2 \times 18 = 36$
 $3 \times 12 = 36$
 $4 \times 9 = 36$
 $6 \times 6 = 36$

So the factors are 1, 2, 3, 4, 5, 9, 12, 18, 36

TIP: Do them in this order so you don't miss any out

TIP: Multiples are the numbers in your times tables

e.g. The multiples of 6 are 6, 12, 18, 24, 30, ...

What is the 7th multiple of 6?
 $7 \times 6 = 42$

What is the 10th multiple of 6?
 $10 \times 6 = 60$

Every calculation must be done using the order of operations:

1st } Brackets
2nd } Indices
3rd } Division
4th } Addition
Subtraction

TIP: Do addition and subtract in whichever appears first from left to right

e.g. Calculate $25 - 3 \times 2 + 3^2$

$= 25 - 3 \times 2 + 9$
 $= 25 - 6 + 9$
 $= 19 + 9$
 $= 28$

TIP: Remember:

- Centi - means 100 smaller
- Milli - means 1000 smaller
- Kilo - means 1000 bigger

mm → cm → m → km

$\div 10$ $\div 100$ $\div 1000$

$\times 10$ $\times 100$ $\times 1000$

Convert 12m to km

Using the diagram, m to km is $\div 1000$

$12 \div 1000 = 0.012$ km

Perimeter: To find the perimeter of a shape, add up all the sides together

TIP: Remember, not all the sides may have measurements on, but remember to include them!

TIP: Don't add any measurements that aren't on the outside of the shape

e.g.

Perimeter = $3 + 5 + 3 + 5 = 16$ cm

Area of a Parallelogram: The area of a parallelogram is base \times perpendicular height (Perpendicular means 90°)

Area of a Rectangle: The area of a rectangle is base \times height

Area of a Triangle: The area of a triangle is base \times perpendicular height $\div 2$ (Perpendicular means 90°)

Area of a Trapezium: Half the sum of the parallel sides, then times the height between them. That is how to calculate The area of a trapezium

TIP: To simplify an expression, collect 'like' terms

$4a + b - 6a - 3b$

$= -2a - 2b$

TIP: Use a number line to help with the negatives

TIP: When substituting, 'swap' the letter for the number (use brackets)

e.g. $3a + 2b$ given that $a = 3, b = 4$

$3(3) + 2(4) = 9 + 8 = 17$

TIP: Multiply the number outside the bracket by the number inside the bracket

TIP: To solve an equation we need to find the value of the letter

e.g. Solve $a + 8 = 11$

$-8 \quad -8$
 $a = 3$

TIP: To keep the equation balanced, do the same to both sides

e.g. Solve $4a = 16$

$\div 4 \quad \div 4$
 $a = 4$

TIP: To solve an equation we need to find the value of the letter

e.g. Solve $8a - 5 = 11$

$+5 \quad +5$
 $8a = 16$
 $\div 8 \quad \div 8$
 $a = 2$

TIP: To keep the equation balanced, do the same to both sides

e.g. Solve $+10 + 6y = 32$

$-10 \quad -10$
 $6y = 22$
 $\div 6 \quad \div 6$
 $a = \frac{22}{6}$

TIP: if there isn't a sign in front of the number/letter, it is a +

TIP: if the number doesn't divide evenly, write as a fraction

The most important thing to remember is not to give up – if you write nothing for a question, you will definitely get it wrong, so have a guess, you will get marks for working out.