

KS3 Maths Curriculum Overview (Core)

The course uses SMP Interact as the main class text. Some chapters should be taught without the students using calculators. This will give more practice of numeracy skills in context. These chapters are marked. Some sections have ICT suggestions. These suggestions are written in this font. Boardwork materials can be found in programmes, maths then SMP referenced.

Financial Capability

This is a unit of work provided by NatWest. Time of teaching will be agreed in the year by the department.

7S Textbook

Chapter 8 Time nc

Section E and F are difficult and D may need more practice on timelines. (BLP: Reasoning for setting out working on time lines). Use the practise books if extra practise is needed. Worksheets are excellent and well worth doing both 99 and 100. (BLP: Collaboration, Reviewing)
Maths Base Time 12hr/24hr as starter.

Chapter 9 Place Value and Rounding nc

A good chapter and worth doing all of. Ten Quick Questions is good as a mini test.

Review 1 Test

Chapter 10 Using Fractions

Great chapter and Section B is good as a starter/brainstorm in groups. Section G is hard but good as extension or activity as a starter. (BLP: Stickability, Absorption, Collaboration)

Chapter 13 Understanding Decimals

A good chapter.

Chapter 14 Temperature

The same as in Book 1 and good chapter. (BLP: Imagining for oral questions on answering sums using the number line. Using the zero as a stopping off point)

Chapter 17 Number Patterns

Lends itself well to investigative work. Choose an investigation from the Year 8 drawer. (BLP: Reviewing, recycling, collaboration, questioning, making links, imagining, reasoning, absorption, noticing).

Starter [www. Transum.org](http://www.Transum.org) – Shine & Write – Satisfy + Satisfaction both very good.

Review 2 Test (see Paula)

Chapter 19 Rounding Decimals

Good chapter.

+ Ten Quick Questions is good as a mini test.

Chapter 24 Decimal Calculation

Good practice of multiplication and division and peer teaching works well.

+ Numeracy Passport – tick decimal option and do +/- in your head for speed.

(BLP: Empathy, Collaboration)

Chapter 25 Equivalent Fractions and Ratio

Good chapter, needs lots of boardwork. Section D is harder.

+ SMILE- Enriching Number- Equivalent Pairs

+ SMILE- Numeracy- Matching Fractions

Chapter 26 Area and Perimeter (if not done from Book 1 already)

Review 3 Test

Chapter 27 Spot the Rule

Good chapter and straight forward but worth doing as Chapter 33 follows on from this.

Some materials in SMP Referenced folder.

Chapter 28 Chance

+ Boardworks SMP Referenced folder

Play the games as described in the teacher's guide. At the end get the class as a whole to discuss them and whether or not they are a game of skill or chance.

+E6 and E7 will need extra help at the board.

Dime Probability Kit is useful as another activity. There is Dime Probability Paper in Active Studio to use on IWB. Play your Cards Right.

(BLP: Collaboration, questioning, reasoning.)

Chapter30 Number Grids nc – NOT IN TEST

This is a good chapter to introduce proof but extra examples will need to be done on the board. However, the chapter is very long and repetitive in parts; you may need to be selective about what sections you do.

+C6 and E4 need extra practise.

Chapter 31 Fractions and Decimals

Tricky chapter that needed a lot of boardwork and practice but worthwhile. Fraction Ruler worksheet was excellent and was a great help to the students understanding. Cut out sheet Matching Fractions, Dec, Percentages in SMP Referenced Folder.

+ SMILE Numeracy Matching Fractions, Ordering Fractions.

(BLP: Making Links)

Chapter 33 Inputs and Outputs

Very good chapter. Extra practice may be needed on Section E. I used 'Expression Snap' (sheet 149) as a sorting activity, sorting into groups that are equivalent. Cover Up puzzle also good.

(BLP: Collaboration, Reviewing, Stickability)

Chapter 35 Perpendicular and Parallel Lines nc.

This is a good opportunity to do some display work on Bridget Riley, a contemporary artist that uses parallel lines, see Paula for details or google her name.

NOT INCLUDED ON TEST

Review 4 Test

Chapter 37 Comparisons

How fast do you react is an excellent activity. (BLP: Collaboration, planning. Whole class lining up in height order to find median also good BLP activity)

Section D is a good activity which brings out lots of points to consider when doing an experiment.

+The Argon Factor is also a very good activity and should produce some very good reports. (CRL-Maths-Recourses)

(BLP: take time to talk about BLP skills needed before starting)

Chapter 38 Multiplying and Dividing

Numeracy Passport for multiplication and division at board and on individual PC's. Had to do lots of pencil and paper practice too. Section B may be unnecessary if teaching Gelosia. (BLP: Good opportunity for peer teaching. Empathy, collaboration, interdependence, imitation, stickability)

Chapter 39 Think of a Number

Good Chapter. Use 'thoans' as a starter.

(BLP: Making Links with Inputs & Outputs Chpt and Brackets Chpt in Yr 7)

Chapter 40 Symmetry 2

Now that symmetry is not taught in year 7 this chapter may need supplementing. Pentominoes is a worthwhile activity.

+Sheet 116 (Introduction activity) and 122 saved in SMP referenced + good demonstration on dart.

(BLP: Imagining)

Chapter 41 Hot and Cold nc

This is an excellent activity and well worth doing.

(BLP: Planning, Reviewing, Reasoning, collaboration and others)

Review Test 5A Review 5 is split into 2 parts

Chapter 43 Decimals with a Calculator

Also involves rounding so good reminder. Beat value needs a lot of boardwork.

Chapter 44 Three Dimensions

+Boardworks (in 3D shapes) is very good

Using examples like those in C4 makes a good quiz as a lesson starter.

A good activity for this chapter is guess my shape using multi link cubes.

See Paula for details.

All needed lots of practice using isometric paper so board works very handy.

Extra Sheets for plans, elevations etc in SMP Referenced Folder.

Section E needs lots of extra practice.

(BLP: Imagining)

Chapter 45 Percentages

+ Boardworks (KS3, N7 Percentages)

Boardworks is excellent. Miss out Pie Charts Section G.

(BLP: making links)

Review Test 5B

Chapter 46 Fair to All

A good chapter.

Chapter 47 Transformations

All of the chapter is good and useful. A2, A3, B3, B4 and activity 'Transformation Code' (good) would all be better photocopied and enlarged.

(BLP: Reviewing, collaboration, stickability, imagining)

Chapter 48 Negative Numbers

A good chapter. Magic squares good as blp starter.

(BLP: Reviewing, collaboration, stickability, imagining)

+ Flipchart in SMP Reference folder

Review Test 6A This review is in two parts.

Chapter 51 Functions and Graphs

A great chapter that links in graphs and rules in flow charts and algebra from previous chapters. Well worth spending time over.

+ Algebra Passport – Functions & Graphs – Graphs $\frac{1}{2}$

+ Algebra Passport – Sequences – most of it incl nth term.

(BLP: making links)

Chapter 52 Multiples and Factors

Good and useful chapter. Sheet 175 is worth doing.

+ Numeracy Passport Factor Racing

+ Boardworks has good section on divisibility.

(BLP: making links)

Chapter 53 Know your Calculator

A very good chapter which continues on from Yr 7 brackets chapter which you should review. Good for squares, roots and division using line.

Chapter 54 Chocolate (Optional)

Review Test 6B (See Paula)

END OF BOOK

Year 9 Square Scheme of work

8S Book

Chapter 1 Into the Bath

This chapter is not very difficult but it can be very confusing. Use MYMATHS, in the search box type time graphs and select real graphs. There are very good examples of bath stories etc. Also available in tenQQ under measure.

Chapter 2 Ratio

This is a good chapter. Start with board work and some class discussion.

Chapter 3 Starting Equations

Do section A as a class activity. Make use of the diagrams, as the students tend to find these very useful.

Chapter 4 Cuboids

A confusing chapter as it contains a lot of different topics. Area, volume and surface area are all included. It is a good idea to give notes on all three topics and perhaps some extra examples to work through. Section D will need to be introduced, it covers converting ml into l.

Chapter 5 Graphs, Charts and Tables

Section c can be supplemented with a class survey.

Chapter 6 Fractions, decimals and percentages

Give board notes on how to find percentages. Section B contains a couple of questions on finding amounts as percentages. This may need some introduction. This is also a good time to reinforce finding percentages without a calculator, perhaps as a lesson starter.

Chapter 7 Using Formulas

This chapter is very similar to Starting Equations. Section C will need an introduction.

Review 1

As described in the teachers guide

Review Test 1

These can be found in room 15a

Chapter 8 Decimals and Area

Section A is quite straightforward. Question A15 can alternately be taught using Gellosia. Section B would benefit from more examples, especially ones covering the area of composite shapes.

Chapter 9 Finding Rules

A1 and A2 are good done as a class. Finding the nth term will need to be introduced at the start of the chapter.

Chapter 10 Using a spreadsheet

Chapter 11 Estimation

Chapter 12 Quadrilaterals

+Boardworks

Chapter 13 Negative Numbers

Start with some board work to reinforce negative numbers and what happens to them when the four rules of number are applied. Students often find subtracting negative numbers difficult. It is a good idea to go over the talent competition done in Year 7 (see Year 7 scheme of work- Chapter 14)

Chapter 14 Percentage

+ Boardworks

_Reinforce finding percentages without a calculator so that A1 can be done without a calculator. Some students find A2 and A3 difficult and so may need some explanation. Sections B and C will both need to be introduced on the board.

Review 2

As described in the teachers guide.

Review Test 2

These can be found in room 15a.

Chapter 15 Probability from Experiments

Chapter 16 Squares, cubes and roots

Start the chapter by doing easy examples using calculators on the board to get students used to the appropriate keys.

Chapter 17 Area

Chapter 18 Equivalent expressions

Chapter 19 No Chance!

DO page 126 as a class.

Chapter 20 Recipes

Begin with board work, and if possible use a photocopy from a real cookery book. Jamie Oliver is a good one, as a lot of the students know him. Ask Paula for photocopies.

Chapter 21 Substituting into Formulas

Review 3

As described in the Teachers Guide

Review Test

End of Year 9 Test