



KS3 Mathematics



The KS3 Curriculum

- There will be a big focus on preparing students for GCSE
- Pupils need to consolidate knowledge from KS2
- Building new skills
- Problem solving and reasoning
- ‘What’s the point?’



Classes

- 6 lessons every two weeks
- Streamed to a similar ability group based on KS2 data
- Teachers will focus on differentiating work for varying abilities within the class
- In a typical class students will regularly work on material above and below their ability (to extend their learning as well as consolidate existing skills)



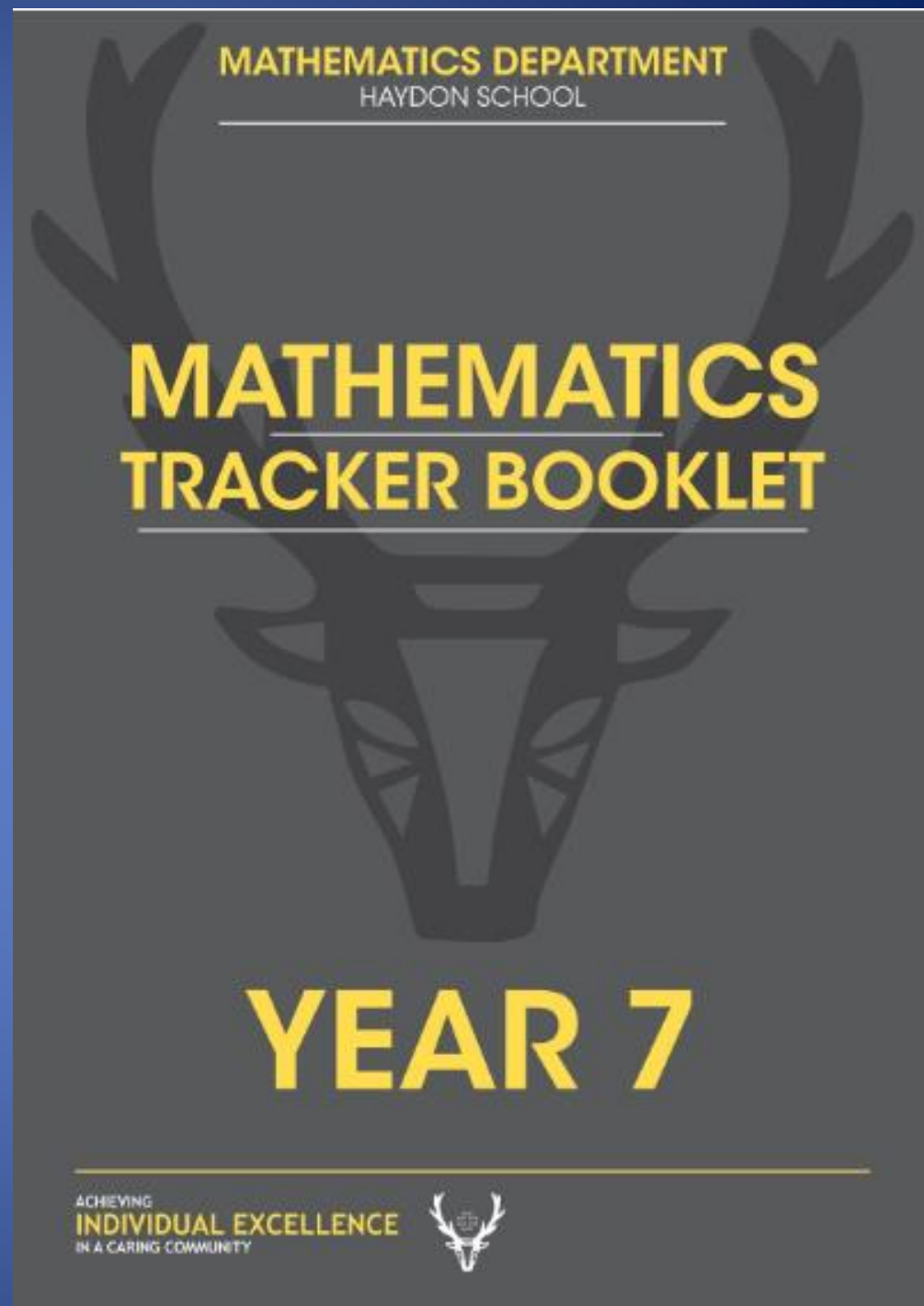
The KS3 Curriculum

- Students will cover the following topics in Year 7:
 - Number properties
 - Fractions
 - Algebra
 - Calculations
 - Ratio and proportion
 - Angles
 - Probability
 - Graphs
 - Shape
 - Transformations
 - Data
 - Sequences
 - Construction
- We aim to improve the students' fluency and problem solving in each of these areas.

Tracker Booklets

All students in year 7 will have a tracker booklet inside their exercise book.

Big focus on Home Learning!





Assessment

- **Topic tests**

- Students will sit 'open book' topic tests
- Students fill in tracker booklets with WWW/ EBI

- **End of Term tests**

- Christmas, Easter and summer tests
- Formal, closed book
- Students fill in tracker booklets with WWW/ EBI

Feedback from assessment – ReACT task



Year 7 Term 2 Assessment ReACT Sheet

Name:		Mark:		Level:			
Q	Skill	My marks	Out of	RAG	Clip number	Done	Avg. score
Section 1 - Skill							
1a	Percentage of amount		1		84, 85, 86, 87		
1b	Percentage increase/decrease		2		88, 89, 90		
2	Solving equations		6		179, 180, 182		
3	Fractions		8		65, 66, 68, 69, 70		
4	Angles in parallel lines		3		481, 482, 483		
5	Probability trees (independent)		5		361, 362		
6	Equation of straight line graphs		4		208, 209		
7	Sharing an amount in a ratio		3		332, 333, 334		
8	HCF/LCM		4		31, 32, 34, 35		
Section 2 - Understanding							
1	Repeated percentage change		4		93, 94		
2	Ratio problems		2		335		
3	Gradient of line from coordinates		2		201, 202, 203		
4	Probability		3		351, 353		
5	Angles in parallel lines		3		488, 489, 490		
6	Algebra and angles		5		486, 487		

Student Self Review of Test

I will ReACT to my feedback by re-doing my red topics and completing the tasks on HegartyMaths

Topics I will improve on:		HegartyMaths Checklist	
1		Search the clip number given above	
2		Watch the video. Take notes in my book	
3		Complete the task online	
4		Write all task questions in my book	
5		Complete all my calculations in my book	
6		Self mark and correct my answer in book	
7		Re-try if I don't get full marks	
8			

- Every student will receive a feedback sheet after each formal assessment
- Students can ReACT by making targets
- Students to use Hegarty maths to improve on topics and complete for homework



Algebra > Linear equations

Substituting & solving



Example

Given that $7x - 3y = 11$

(i) Find x when $y = 3$

(ii) Find x when $y = -2$



Spotted a mistake in this video?

189 - Substituting & solving

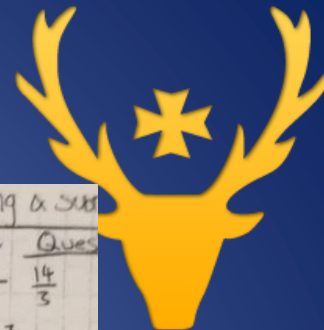
Learn how to substitute values into formula in order to solve for an unknown term.

Video watched 0.00x

Your score **New lesson** HegartyMaths avg 50%

[Do quiz](#)

Example of homework



12/9/17 Hagarly Maths fraction HomeworkR

1. Choose the biggest fraction:
 $\frac{1}{7}$ $\frac{1}{5}$ $\frac{1}{6}$

2. Choose the biggest fraction:
 $\frac{5}{8}$ $\frac{1}{2}$
 $2 \times 4 = 8$ $\frac{4}{8}$ or $\frac{5}{8}$
 $1 \times 4 = 4$

3. Choose the smallest fraction:
 $\frac{3}{24}$ $\frac{1}{6}$
 $6 \times 4 = 24$ $\frac{4}{24}$ or $\frac{3}{24}$
 $1 \times 4 = 4$

4. Choose the biggest fraction:
 $\frac{3}{5}$ $\frac{2}{3}$
 $5 \times 3 = 15$ $\frac{9}{15}$ or $\frac{10}{15}$
 $3 \times 3 = 9$
 $3 \times 5 = 15$
 $2 \times 5 = 10$

5. Choose the smallest fraction:
 $\frac{3}{11}$ $\frac{2}{7}$
 $11 \times 7 = 77$ $\frac{21}{77}$ or $\frac{22}{77}$
 $3 \times 7 = 21$
 $7 \times 11 = 77$
 $2 \times 11 = 22$

6. Choose the biggest fraction:
 $\frac{3}{5}$ $\frac{6}{7}$ $\frac{3}{4}$
 $5 \times 28 = 140$ $\frac{84}{140}$ or $\frac{120}{140}$ or $\frac{105}{140}$
 $3 \times 28 = 84$
 $7 \times 20 = 140$
 $6 \times 20 = 120$
 $4 \times 35 = 140$
 $3 \times 35 = 105$

7. Choose the smallest fraction:
 $\frac{4}{5}$ $\frac{9}{10}$ $\frac{3}{8}$
 $5 \times 80 = 400$ $\frac{320}{400}$ or $\frac{360}{400}$ or $\frac{150}{400}$
 $4 \times 80 = 320$
 $10 \times 40 = 400$
 $9 \times 40 = 360$
 $8 \times 50 = 400$
 $3 \times 50 = 150$

8. Sort these fractions in ascending order:
 $\frac{1}{3}, \frac{2}{5}, \frac{1}{4}$ answer: $\frac{1}{4}, \frac{1}{3}, \frac{2}{5}$
 $3 \times 20 = 60$ $\frac{20}{60}$ $\frac{15}{60}$
 $1 \times 20 = 20$
 $5 \times 12 = 60$ $\frac{24}{60}$ $\frac{20}{60}$
 $2 \times 12 = 24$
 $4 \times 15 = 60$ $\frac{15}{60}$ $\frac{24}{60}$
 $1 \times 15 = 15$

9. Sort these fractions in ascending order: $\frac{5}{8}, \frac{3}{5}, \frac{1}{10}, \frac{3}{4}$
 $8 \times 200 = 1600$ $\frac{1000}{1600}$ $\frac{160}{1600}$
 $5 \times 200 = 1000$
 $5 \times 320 = 1600$ $\frac{960}{1600}$ $\frac{960}{1600}$
 $3 \times 320 = 960$
 $10 \times 160 = 1600$ $\frac{160}{1600}$ $\frac{1000}{1600}$
 $1 \times 160 = 160$
 $4 \times 400 = 1600$ $\frac{1200}{1600}$ $\frac{1200}{1600}$
 $3 \times 400 = 1200$
 answer: $\frac{1}{10}, \frac{3}{5}, \frac{5}{8}, \frac{3}{4}$

10. Choose the smallest number:
 $3\frac{1}{3}$ $\frac{13}{4}$
 $3 \times 3 = 9 + 1 = \frac{10}{3}$
 $3 \times 4 = 12$ $\frac{40}{12}$ or $\frac{39}{12}$
 $10 \times 4 = 40$
 $4 \times 3 = 12$
 $13 \times 3 = 39$

12/9/17 Reading & Sub

	Answer	Quest
1.	$4\frac{2}{3}$	$-\frac{14}{3}$
2.	$\frac{7}{4}$	$-\frac{13}{4}$
3.	$\frac{19}{5}$	$-\frac{34}{5}$
4.	$4\frac{1}{2}$	$-\frac{9}{2}$
5.	$3\frac{1}{3}$	$-\frac{10}{3}$
6.	$2\frac{1}{6}$	$-\frac{13}{6}$
7.	$\frac{12}{5}$	$-\frac{22}{5}$
8.	$\frac{25}{7}$	$-\frac{34}{7}$
9.	$5\frac{6}{7}$	$-\frac{41}{7}$
10.	$\frac{13}{6}$	$-\frac{1}{6}$
11.	$\frac{19}{4}$	$-\frac{33}{4}$
12.	$\frac{11}{2}$	$-\frac{51}{2}$
13.	$\frac{3}{2}$	$-\frac{11}{2}$
14.	$\frac{26}{7}$	$-\frac{35}{7}$
15.	$2\frac{1}{2}$	$-\frac{5}{2}$
16.	$\frac{15}{4}$	$-\frac{33}{4}$

great work
 make sure
 you
 take
 your
 score.



How you can help...

- Check students homework
- Help with numeracy
- How do you use maths in your profession?

- Make sure students are equipped for maths
- pen, pencil, rubber, sharpener, ruler (30cm), protractor, compass and a scientific calculator

- If you have concerns, contact class teacher



The KS3 Teaching Team

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– Any queries contact class teacher