Prior Weston

Going for Gold

Level 3 Practice Pack

What is 'Going for Gold'?

Going for Gold is a challenge to help all children learn important Maths facts.

Why do we need to know Maths facts?

If you know facts quickly then you can answer questions quickly and correctly. They also help you to solve more difficult questions. If you know lots of facts you can feel more confident in Maths too.

What do I need to do?

You need to decide which level to start on. There are three levels; 1, 2 and 3. **You need to start with the bronze facts**. Practise them and make sure you could give an answer in 1 second! There are Practice Packs for each level. Once you think you know your facts you can ask to be tested.

How to I ask to be tested?

You need to put your name on a card and put it in the box outside Lorna's class. Year 1 and 2 children are tested on Wednesday lunchtimes, Year 3 and 4 on Thursday lunchtimes and Year 5 and 6 on Friday lunchtimes. Simone does also try to test children that missed their test in the afternoon.

What if I don't pass the test?

Don't worry! You will be told what you still need to practice.

What if I pass the test?

You will be given a certificate and badge. Then you can start learning the next set of facts!

Can I practice in school?

Yes, on Friday lunch times

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What do I do if I've got a question or suggestion about 'Going for Gold'?

Please find Simone and tell her!

Going for Gold!

Level 3

Bronze Facts

Counting:

0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, …

0, ½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, ….

<u>All times tables to 12 and all related division facts.</u>

<u>These are just some of them:</u>

DIVISIONS

1 ÷ 1 = 1	2 ÷ 2 = 1	3 ÷ 3 = 1	4 ÷ 4 = 1	5 ÷ 5 = 1	6 ÷ 6 = 1
2 ÷ 1 = 2	4 ÷ 2 = 2	6 ÷ 3 = 2	8 ÷ 4 = 2	10 ÷ 5 = 2	12 ÷ 6 = 2
3 ÷ 1 = 3	6 ÷ 2 = 3	9 ÷ 3 = 3	12 ÷ 4 = 3	15 ÷ 5 = 3	18 ÷ 6 = 3
4 ÷ 1 = 4	8 ÷ 2 = 4	12 ÷ 3 = 4	16 ÷ 4 = 4	20 ÷ 5 = 4	24 ÷ 6 = 4
5 ÷ 1 = 5	10 ÷ 2 = 5	15 ÷ 3 = 5	20 ÷ 4 = 5	25 ÷ 5 = 5	30 ÷ 6 = 5
6 ÷ 1 = 6	12 ÷ 2 = 6	18 ÷ 3 = 6	24 ÷ 4 = 6	30 ÷ 5 = 6	36 ÷ 6 = 6
7 ÷ 1 = 7	14 ÷ 2 = 7	21 ÷ 3 = 7	28 ÷ 4 = 7	35 ÷ 5 = 7	42 ÷ 6 = 7
8 ÷ 1 = 8	16 ÷ 2 = 8	24 ÷ 3 = 8	32 ÷ 4 = 8	40 ÷ 5 = 8	48 ÷ 6 = 8
9 ÷ 1 = 9	18 ÷ 2 = 9	27 ÷ 3 = 9	36 ÷ 4 = 9	45 ÷ 5 = 9	54 ÷ 6 = 9
10 ÷ 1 = 10	20 ÷ 2 = 10	30 ÷ 3 = 10	40 ÷ 4 = 10	50 ÷ 5 = 10	60 ÷ 6 = 10
11 ÷ 1 = 11	22 ÷ 2 = 11	33 ÷ 3 = 11	44 ÷ 4 = 11	55 ÷ 5 = 11	66 ÷ 6 = 11
12 ÷ 1 = 12	24 ÷ 2 = 12	36 ÷ 3 = 12	48 ÷ 4 = 12	60 ÷ 5 = 12	72 ÷ 6 = 12
7 ÷ 7 = 1	8 ÷ 8 = 1	9 ÷ 9 = 1	10 ÷ 10 = 1	11 ÷ 11 = 1	12 ÷ 12 = 1
14 ÷ 7 = 2	16 ÷ 8 = 2	18 ÷ 9 = 2	20 ÷ 10 = 2	22 ÷ 11 = 2	24 ÷ 12 = 2
21 ÷ 7 = 3	24 ÷ 8 = 3	27 ÷ 9 = 3	30 ÷ 10 = 3	33 ÷ 11 = 3	36 ÷ 12 = 3
28 ÷ 7 = 4	32 ÷ 8 = 4	36 ÷ 9 = 4	40 ÷ 10 = 4	44 ÷ 11 = 4	48 ÷ 12 = 4
35 ÷ 7 = 5	40 ÷ 8 = 5	45 ÷ 9 = 5	50 ÷ 10 = 5	55 ÷ 11 = 5	60 ÷ 12 = 5
42 ÷ 7 = 6	48 ÷ 8 = 6	54 ÷ 9 = 6	60 ÷ 10 = 6	66 ÷ 11 = 6	72 ÷ 12 = 6
49 ÷ 7 = 7	56 ÷ 8 = 7	63 ÷ 9 = 7	70 ÷ 10 = 7	77 ÷ 11 = 7	84 ÷ 12 = 7
56 ÷ 7 = 8	64 ÷ 8 = 8	72 ÷ 9 = 8	80 ÷ 10 = 8	88 ÷ 11 = 8	96 ÷ 12 = 8
63 ÷ 7 = 9	72 ÷ 8 = 9	81 ÷ 9 = 9	90 ÷ 10 = 9	99 ÷ 11 = 9	108 ÷ 12 = 9
70 ÷ 7 = 10	80 ÷ 8 = 10	90 ÷ 9 = 10	100 ÷ 10 = 10	110 ÷ 11 = 10	120 ÷ 12 = 10
77 ÷ 7 = 11	88 ÷ 8 = 11	99 ÷ 9 = 11	110 ÷ 10 = 11	121 ÷ 11 = 11	132 ÷ 12 = 11
84 ÷ 7 = 12	96 ÷ 8 = 12	108 ÷ 9 = 12	120 ÷ 10 = 12	132 ÷ 11 = 12	144 ÷ 12 = 12

Going for Gold!

Level 3

Silver Facts

To know..

Prime Numbers: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, …

Square Numbers:, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100

You need to know <u>factors</u> of all numbers to 144.

Factors are the numbers you multiply together to get another number: for example 2 × 6 = 12, but also 3 × 4 = 12, and 1 × 12 = 12. **So 1, 2, 3, 4, 6 and 12 are factors of 12.**

<u>Time</u>

1 millennium = 1000 years

1 century = 100 years

1 year = 12 months or 52 weeks or 365 days

1 leap year = 366 days

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

<u>Measures</u>

1 kilometre = 1000 metres

1 metre = 100 centimetres or 1000 millimetres

1 centimetre = 10 millimetres

1 kilogram = 1000 grams

1 litre = 1000 millilitres

1 tonne = 1000 kilograms

1 litre = 100 centilitres

1 centilitre = 10 millilitres

Going for Gold!

Level 3

Gold Facts

To know…

Cubed numbers: 1, 8, 27, 64, 125, 216, ….

Hundredths: 1.03, 1.02, 1.01, 1.00, 0.99, 0.98, 0.97, …..

Conversions between metric and imperial units

1 litre = 2 pints (more accurately 1 ¾ pints)

4.5 litres = 1 gallon or 8 pints

1 kilogram = 2 lb (more accurately 2.2lb)

28 grams = 1 oz

1.6 kilometres = 1 mile

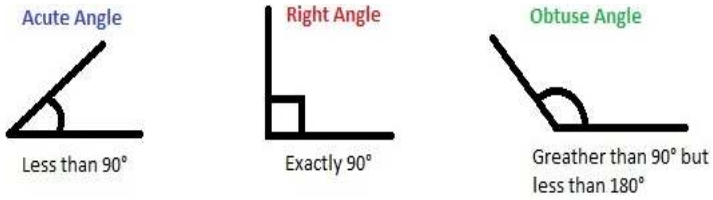
Angles

Angles in a straight line = 180°

Angles in a circle = 360°

Total sum of angles in a triangle = 180°

Total sum of angles in a quadrilateral = 360°



Fractions	Decimals	%
½	0.5	50%
¼	0.25	25%
¾	0.75	75%
1/3	0.333…	33%
2/3	0.666…	67%
1/10	0.1	10%
2/10	0.2	20%
1/5	0.2	20%
2/5	0.4	40%

Going for Gold!

Level 3

Platinum Challenge

The platinum level challenge is to be able to complete a grid like the one below in <u>1 minute</u>. The grid that you are given could have any 2-digit number or even a decimal to multiply. Here are some for you to use to practice:

An example:

X	23
1	23
2	46
5	115
10	230
20	460
30	690
50	2300
100	4600

X	46
1	
2	
5	
10	
20	
30	
50	
100	

X	57
1	
2	
5	
10	
20	
30	
50	
100	

X	2.3
1	
2	
5	
10	
20	
30	
50	
100	

Level 3 information

By the time children reach Level 3 they should have rapid recall of their times tables and the initial focus is on knowing the related division facts. Once children have these, the focus is on learning facts around time and measure.

Counting:

Children should be able to count in fractions and decimal numbers as well as negative numbers. It is good to give a context to these so children could practise with money and look at weather reports for a context for negative numbers. Children also need to know square numbers, prime numbers and cubed numbers. Here is the definition for each:

Square number = the product of a number multiplied by itself e.g 6 x 6 = 36 so 36 is a square number.

Prime number = a number that is only divisible by itself and one e.g 2, 3, 5, 7, 11 etc

Cubed numbers = a number that is made by multiplying a digit by itself three times for example 2 cubed is 2 x 2 x 2 = 8

Children need to be able to quickly count in prime numbers, square numbers and cubed numbers. They could identify the numbers on a number square and colour them in (number squares included). All prime, square and cubed numbers (to 100) could be put on post it notes and children have to sort them into the different groups and order them. When out walking you could have a game where each time you spot a prime/square/cube number you get a point. Please let me know if you devise any others!

Maths Facts

Children need to know different measurements and facts about angles and imperial and metric conversions. Some of these can be practised when cooking and in everyday activities; looking at timetables, calendars etc. Children should know roughly how long a metre is and it would be really useful if children know how far a mile/ kilometre is.

Some of these facts will need to practised every day. You could play a matching cards type game with the imperial and metric measurements. Children should know fraction, decimal and percentage equivalents.

Platinum Level challenge

In order to complete the Platinum Challenge children must complete one of the grids within 1 min. They should be able to quickly work out key facts and then manipulate them to find others for example to find 30 x ??, they could multiply ?? x 10, and ?? x 20 then add the two answers together. Children could practise this and draw up their own grids.

Number Squares

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100