

# Mathematics



## Holywell C of E Primary

*Flowing, Strengthening, Deepening*

Updated: July 2024

# 1. Rationale

At Holywell C of E Primary School, high quality teaching and learning is at the very heart of our mission. This is because high quality teaching and learning transforms lives, opens doors and provides opportunities. The purpose of this overview is to promote the best possible teaching, learning strategies and outcomes in Mathematics for our pupils. We recognise that Mathematics increasingly underpins all aspects of modern life and technology, and that in order to succeed in the 21<sup>st</sup> century, children need to be confident and competent mathematicians.

## 2. Aims

Our aims for Mathematics are based on those in The National Curriculum (2014), which sets out three key aims. At Holywell, we link this to our '*Flowing, Strengthening, Deepening*' vision by articulating these aims in the following way:

- **Flowing:** To become **fluent** in the fundamentals of Mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **Strengthening:** To **reason** mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- **Deepening:** To **solve problems** by applying their understanding to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

At Holywell, our Maths overview, and the teaching and learning that stems from it, is designed to ensure the children confidently meet these aims. In addition, we expect all children to develop an appreciation for the increasing importance of Maths in modern life by identifying real-world applications of taught mathematical principles.

## 3. Teaching

### 3.1 - What we teach

At Holywell, teachers are encouraged to follow the White Rose Maths (WRM) schemes of work to support their teaching. Following this scheme is designed to ensure that all Maths teaching at Holywell is consistent and of a high-quality by providing a solid base of teaching resources and questions. These are intrinsically linked to each year group's curriculum expectations, for teachers to use and adapt as necessary. We supplement this scheme using other resources such as Classroom Secrets, NRICH and the NCETM mastery resources.

### 3.2 - Who we teach

At Holywell, we believe that all children are entitled to the same high quality teaching and it is therefore our expectation that all children move through the schemes of work at the same pace. However, we recognise that some children need additional scaffolds and support to achieve the same objectives, and other children may need additional challenge to deepen their understanding further.

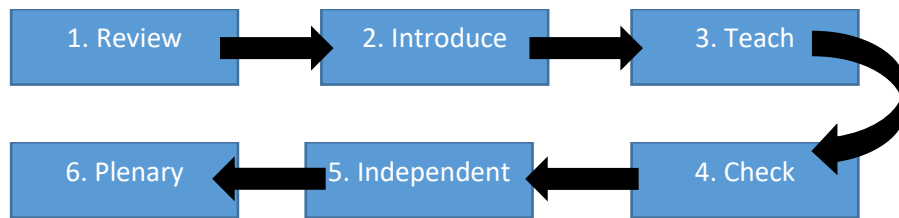
Additional support could come in the form of practical resources, visual frames, targeted group work within lessons and pre-teaching and targeted intervention outside of lessons for some children. This is not an exhaustive list, and the exact form that additional support might take is left to teachers' professional judgement.

For some particularly more confident mathematicians, for whom the schemes of work do not provide sufficient challenge, we provide additional experiences by exposing them to deeper reasoning and problem solving questions and targeted teaching within lessons.

### 3.3 - How we teach

At Holywell, we use the long and medium-term plans from WRM to structure our units (see [Appendix A](#)) which all teachers are expected to follow to ensure full coverage of the curriculum, adapting as necessary.

At Holywell, our Maths lessons follow will always contain aspects of the following structure. However, they may not always be in the same order, depending on the context of the lesson.



1. Review → Each lesson starts with a short arithmetic-based activity; usually in the form of **Fluent in Five** or **Rapid Reasoning** (See Appendix C) - quick application of fluency and reasoning with whole class discussions around approaches/methods to use and to identify and recognise any errors made positively. This will then usually be followed by a '*Get Ready*' slides from the WRM scheme, or both. This is because constantly being required to recall prior learning means it is more likely to be transferred to pupils' long term memory.

2. Introduce → After the review, the learning objective for the lesson is introduced, drawn from the WRM scheme of work, and teachers make explicit links to previous learning where they would have encountered similar concepts, for example in previous year groups.

3. Teach → During the 'teach' section of the lesson, teachers use the WRM slides to structure high quality inputs, supplementing the slides and videos with additional modelling and examples to ensure understanding.

4. Check → Following the initial input, children are provided with some initial questions based on the material just introduced to work through with a learning partner in their books. As a class, the teacher would then work through the answers to these initial questions, asking children to participate through high quality questioning and whiteboard work, to ensure understanding. Children who might need additional support during the lesson are identified at this point. At this point in the lesson, the more confident mathematicians may move away from the rest of the classes' learning and access work with a deeper level of challenge.

5. Independent Activity → Following the 'check' additional teaching is undertaken to introduce the children to their independent learning activities, with a particular focus on reasoning and problem solving questions. Children are then expected to complete these independently to ensure individual accountability and learning.

6. Plenary → Plenaries are used as an opportunity to reflect and summarise the key learning once more, as well as to self- and peer-assess

the work. Teachers would be expected to go through the answers with the class, and children would correct their work if necessary using a purple pen, following explicit teacher modelling of the question.

Each new unit of work is signified with a Unit Front Sheet (See Appendix B), which breaks the learning down into small steps throughout each unit. These front sheet also have diagrams, examples and models of concepts that will be learnt throughout each particular unit.

### 3.4 - Numbots and Times Table Rock Stars

In order to develop rapid recall of multiplication and division facts (Year 3 and 4), Maths lessons in KS2 is may proceeded by a multiplication and division test which is marked as a whole class using Times Table Rock Stars. This is also used to track performance and average speed. The children are encouraged to use the app for additional practice at home to increase their average time per question. See Appendix D for example TTRS quiz.

This same principle underpinned with rapid recall of addition and subtraction facts in Year 1 using Numbots (See Appendix E). This is again used (when appropriate) in school, however mostly encouraged to complete at home with parents and family support.

### 3.5 - When we teach

As a core subject, Maths is taught daily. Each key stage is expected to timetable the following:

#### Key Stage One

- Daily hour long Maths lesson. (including Fluent in Five or NCETM mastery)

#### Key Stage Two

- Daily hour long Maths lesson (including Fluent in Five or Rapid Reasoning)
- Daily TTRS practice (5-10 minutes in Year 3 and 4).

### 3.6 - Calculation Policy

To ensure that all children are taught age-appropriate, consistent approaches and methods to calculation, we use the White Rose Calculation Policy (a link of which can be found on the school's website - <https://www.holywellprimary.co.uk/page/?title=Maths&pid=36> ). It demonstrates the progressive techniques and skills that children may practise and acquire when learning about the four operations. This calculation policy is used in conjunction with the White Rose scheme of learning by all members of teaching staff, and is also shared with parents regularly to ensure consistency with home learning.

### 3.7 - Mathematical Vocabulary

The use of correct, accurate and specific mathematical terminology is at the core of effective and deep-rooted mathematical understanding. We encourage all staff to use and model appropriate mathematical vocabulary and use the following documents to ensure children are taught and apply this vocabulary in their learning journey.

NCETM Mathematics Glossary for teachers in Key Stages 1-3

<https://www.ncetm.org.uk/media/hpihrj3s/national-curriculum-glossary.pdf>

## **4. Feedback and Marking**

### 4.1 General Principles

Our Teaching, Learning, Feedback and Marking Policy sets out our approach to feedback and marking as a school. The following sections of this overview detail how this applies to Maths lessons in particular.

### 4.2 Live Marking

During the independent learning phase of a lesson, the teacher will circulate the class and provide high quality verbal feedback as the children are completing their work. Since teachers are speaking to pupils during the lesson, this enables feedback to be both clear and precise. Teachers would live mark and point out any mistakes and children

would be expected to correct them with a purple pen following additional modelling.

#### 4.3 Whole Class Feedback

As teachers are circulating, it might be the case that common misconceptions are identified, at which point these would be addressed whole class using mini-plenaries. Additionally, during a post-lesson review of books, the teacher will identify common misconceptions or general points for improvement relevant to groups of children or the whole class. They will then address these whole-class, before the start of the next lesson.

#### 4.4 Self- and Peer- and Shared Marking

Self- and peer-marking take place during the 'check' and 'plenary' parts of the lesson. Teachers may provide the answers for students to check mark themselves using a purple pen. They may then be encouraged to work with a partner to correct any mistakes, and additional teacher modelling used to support if necessary.

#### 4.6 School Marking Code

During live marking, teachers would be expected to apply the school's marking code as follows:

_____sp	Incorrect spelling
O	Change case of letter or punctuation mark
—	Punctuation mark missing
^	Missing word
( )?	This doesn't make sense
✓	Correct response (Maths)
•	Incorrect response (Maths)
• ✓	Corrected response (Maths)



Team point awarded

## 5. Assessment

### 5.1 Formative Assessment

Formative assessment is used to make 'on the spot' adaptations to lessons, as well as plans to future lessons within the unit in response to children's learning. Formative assessment takes place during the 'check' part of the lesson to identify children who need additional support teaching and may take the form of short whiteboard activities for example, to demonstrate understanding. Teachers also use formative assessment during the 'independent practice' part of the lesson, where they circulate to identify how the children are engaging with the new learning. These strategies, combined with a post-lesson review of the children's work in their books, allows the teacher to make adaptations, for example by providing additional practice, or condensing lessons, to ensure the children are successful. Ongoing formative assessment in Maths lessons enables the class teachers to identify children falling behind on a daily basis and put additional support in place for them.

### 5.2 Summative Assessment

At the end of each unit, children sit the WRM end of unit assessments. Based on the results of these assessments, children are targeted for additional teaching if their score is not satisfactory. In addition these end of unit assessments are used to inform the 'review' section of the lesson, with concepts that are not as secure revisited more frequently. See Appendix F for an example end of unit assessment.

On a termly basis, the children in Years 3, 4 and 5 sit PiXL tests during an 'assessment week'. These tests inform our judgements of the children's level of attainment, and the results of Summer Term assessments are reported to parents in the annual report. In Years 2 and 6, the children sit termly DfE SATs assessments in the same format as the PiXL assessments in other year groups.

Following each termly assessment week, the results of these tests are used to identify children who, based on their prior attainment, are not



achieving in-line with our expectations. As well, teachers complete extensive question-level analysis (QLA) for each test in identifying key areas to develop and cover as a class (as well as individually) After the assessment process, pupil progress meetings are held with senior leaders and teachers, so that the children are identified quickly and promptly targeted for additional support.

### 5.3 - Year 4 Multiplication Tables Check

Year 4 children will undertake a statutory test to determine pupils' recall and fluency of their times tables. The test is taken in the summer term. Support and engagement is given throughout the year and the children will undergo termly 'mock' tests to better prepare and understand the process.

In preparation for the Multiplication Tables Check, and to ensure that children have grasped the recall of multiplication facts and associated division facts, as well as derived facts, the following long term plan sets out explicit multiplication tables teaching:

Year group	Tables to teach			
Year 1	x 0		x 1	
Year 2	x 2	x 5		x 10
Year 3	x 3	x 4	x 8	x 6
Year 4	x 7	x 9	x 11	x 12
Year 5	Derived number facts (x10, 100 and 1,000)			
Year 6	Decimal application (e.g. $0.6 \times 7$ )			

# Appendices

Appendix A: White Rose Maths Yearly Overviews

Appendix B: Example Unit Front Sheets

Appendix C: Example Fluent in Five and Rapid Reasoning

Appendix D: Example TTRS Quiz

Appendix E: Example Numbots

Appendix F: Example End of Unit Assessment (WRM)

Appendix G: Progression of Mathematical Vocabulary

# Appendix A: White Rose Maths Yearly Overviews

## Year 1 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value (within 10)					Number Addition and subtraction (within 10)					Geometry Shape	Consolidation
Spring	Number Place value (within 20)			Number Addition and subtraction (within 20)			Number Place value (within 50)		Measurement Length and height		Measurement Mass and volume	
Summer	Number Multiplication and division			Number Fractions		Geometry Position and direction	Number Place value (within 100)		Measurement Money	Measurement Time		Consolidation

## Year 2 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value				Number Addition and subtraction					Geometry Shape		
Spring	Measurement Money		Number Multiplication and division					Measurement Length and height		Measurement Mass, capacity and temperature		
Summer	Number Fractions			Measurement Time			Statistics		Geometry Position and direction		Consolidation	

## Year 3 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number <b>Place value</b>			Number <b>Addition and subtraction</b>				Number <b>Multiplication and division A</b>				
Spring	Number <b>Multiplication and division B</b>			Measurement <b>Length and perimeter</b>			Number <b>Fractions A</b>			Measurement <b>Mass and capacity</b>		
Summer	Number <b>Fractions B</b>		Measurement <b>Money</b>		Measurement <b>Time</b>			Geometry <b>Shape</b>		Statistics		Consolidation

## Year 4 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number <b>Place value</b>				Number <b>Addition and subtraction</b>			Measurement <b>Area</b>	Number <b>Multiplication and division A</b>			Consolidation
Spring	Number <b>Multiplication and division B</b>			Measurement <b>Length and perimeter</b>		Number <b>Fractions</b>			Number <b>Decimals A</b>			
Summer	Number <b>Decimals B</b>		Measurement <b>Money</b>		Measurement <b>Time</b>		Consolidation	Geometry <b>Shape</b>		Statistics	Geometry <b>Position and direction</b>	

## Year 5 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number <b>Place value</b>			Number <b>Addition and subtraction</b>		Number <b>Multiplication and division A</b>			Number <b>Fractions A</b>			
Spring	Number <b>Multiplication and division B</b>			Number <b>Fractions B</b>		Number <b>Decimals and percentages</b>			Measurement <b>Perimeter and area</b>		Statistics	
Summer	Geometry <b>Shape</b>			Geometry <b>Position and direction</b>		Number <b>Decimals</b>			Number <b>Negative numbers</b>	Measurement <b>Converting units</b>		Measurement <b>Volume</b>

## Year 6 Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number <b>Place value</b>		Number <b>Addition, subtraction, multiplication and division</b>					Number <b>Fractions A</b>		Number <b>Fractions B</b>		Measurement <b>Converting units</b>
Spring	<b>Ratio</b>		<b>Algebra</b>		Number <b>Decimals</b>		Number <b>Fractions, decimals and percentages</b>		Measurement <b>Area, perimeter and volume</b>		<b>Statistics</b>	
Summer	Geometry <b>Shape</b>		Geometry <b>Position and direction</b>		Themed projects, consolidation and problem solving							

## Appendix B: Example Unit Front Sheets



### *Year 6 – Addition, Subtraction, Multiplication and Division*

		5	2	2	4	7	
	+	3		5	9	0	4
		9	0		3		2



		0	2	4	r	12	
15		3	7	2			
		3	0	0			
			7	2			
			6	0			
			1	2			

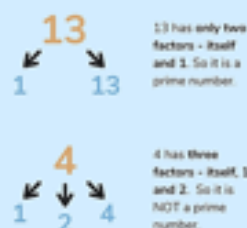
<i>Small Steps</i>		<i>Small Steps</i>	
<i>Add and subtract integers</i>		<i>Division using factors</i>	
<i>Common factors</i>		<i>Introduction to long division</i>	
<i>Common multiples</i>		<i>Long division with remainders</i>	
<i>Rules of divisibility</i>		<i>Solve problems with division</i>	
<i>Prime numbers to 100</i>		<i>Solve multi-step problems</i>	
<i>Square and cube numbers</i>		<i>Order of operations</i>	
<i>Multiply 4-digit by 2 digit numbers</i>		<i>Mental calculations and estimation</i>	
<i>Solve problems with multiplication</i>		<i>Reason for known facts</i>	
<i>Short division</i>			



## Year 5- Multiplication and Division



How do prime numbers work?



### Cube numbers

When you multiply a number by itself then by itself again

$$3 \times 3 \times 3$$

$$3 \times 3 = 9$$



$$9 \times 3 = 27$$

### Square Numbers and Square Roots

A square number is a number that is multiplied by itself.

When we square a value we always get a positive answer.

E.g.

$4 \times 4$  can be written as  $4^2$

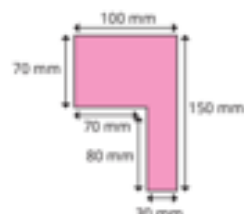
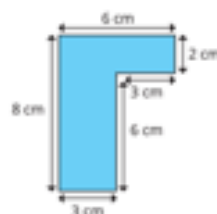
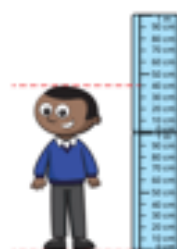
It is spoken as "4 squared" or "4 to the power of 2"



Small Steps	
Multiples	
Common multiples	
Factors	
Common factors	
Prime numbers	
Square numbers	
Cube numbers	
Multiply by 10, 100 and 1000	
Divide by 10, 100 and 1000	
Multiples of 10, 100 and 1000	



## Year 3 - Length & Perimeter



78 mm		
70 mm		mm

365 cm		
	cm	65 mm







### Small Steps

Measure in metres and centimetres	
Measure in millimetres	
Measure in centimetres and millimetres	
Metres, centimetres and millimetres	
Equivalent lengths (centimetres and millimetres)	
Compare lengths	
Add lengths	
Subtract lengths	
What is perimeter?	
Measure perimeter	
Calculate perimeter	












## Year 4 – Money

UK Coins							
							
£0.01 one penny coin	£0.02 two pence coin	£0.05 five pence coin	£0.10 ten pence coin	£0.20 twenty pence coin	£0.50 fifty pence coin	£1.00 one pound coin	£2.00 two pound coin

UK Notes			
			
£5 five pound note	£10 ten pound note	£20 twenty pound note	£50 fifty pound note

Pounds and Pence			
			
£3 and 25 pence		£52 and 13 pence	
			463 = £4.63
			705p = £7.05
			92p = £0.92

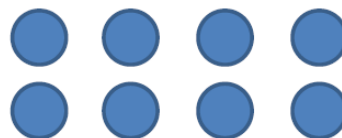
Small Steps	
Write money using decimals	
Convert between pounds and pence	
Compare amounts of money	
Estimate with money	
Calculate with money	
Solve problems with money	

## Appendix C: Example Fluent in 5



Year 1  
Week 2 – Day 3

1. Half of 8 = ?



2.  $6 + 4 = ?$

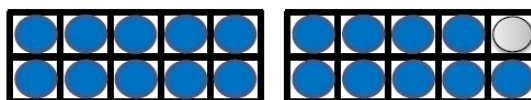
Use...



Number shapes

...to help you

3.  $20 - 1 = ?$



Year 4  
Week 8 – Day 1


KEY





Try mentally first





Try a written method

 A.  $7694 + 7896 =$

 B.  $\frac{1}{3} + \frac{1}{3} =$

 C.  $5 \times 9 =$

 D.  $75 \times 9 =$

 E.  $42 \div 7 =$

1  $4,708 \times 35 =$

2 marks

2  $6 \times (10 - 5) =$

1 mark

3  $70,487 - 13,109 =$

1 mark

4  $45 \div \boxed{\phantom{000}} = 9$

1 mark

5  $472 + 30 =$

1 mark

6  $94 - 13 + 20 =$

1 mark

# Appendix D: Example TTRS Quiz

Name: \_\_\_\_\_

Week 1 Session 1

2020-21

3s 4s and 8s

5 a week

## Times Tables Rock Stars

## 3 Times Tables

Licensed to Holywell CofE Primary School, St Ives

1	$3 \times 12 =$ _____	21	$3 \times 10 =$ _____	41	$4 \times 3 =$ _____
2	$3 \times 1 =$ _____	22	$3 \times 12 =$ _____	42	$9 \times 3 =$ _____
3	$3 \times 12 =$ _____	23	$3 \times 2 =$ _____	43	$8 \times 3 =$ _____
4	$3 \times 4 =$ _____	24	$3 \times 6 =$ _____	44	$1 \times 3 =$ _____
5	$3 \times 2 =$ _____	25	$3 \times 3 =$ _____	45	$12 \times 3 =$ _____
6	$3 \times 10 =$ _____	26	$3 \times 8 =$ _____	46	$11 \times 3 =$ _____
7	$3 \times 10 =$ _____	27	$3 \times 7 =$ _____	47	$2 \times 3 =$ _____
8	$3 \times 5 =$ _____	28	$3 \times 3 =$ _____	48	$7 \times 3 =$ _____
9	$3 \times 12 =$ _____	29	$3 \times 5 =$ _____	49	$3 \times 3 =$ _____
10	$3 \times 5 =$ _____	30	$3 \times 2 =$ _____	50	$1 \times 3 =$ _____
11	$3 \times 4 =$ _____	31	$3 \times 3 =$ _____	51	$9 \times 3 =$ _____
12	$3 \times 5 =$ _____	32	$1 \times 3 =$ _____	52	$7 \times 3 =$ _____
13	$3 \times 9 =$ _____	33	$8 \times 3 =$ _____	53	$1 \times 3 =$ _____
14	$3 \times 6 =$ _____	34	$3 \times 3 =$ _____	54	$6 \times 3 =$ _____
15	$3 \times 6 =$ _____	35	$8 \times 3 =$ _____	55	$4 \times 3 =$ _____
16	$3 \times 5 =$ _____	36	$2 \times 3 =$ _____	56	$10 \times 3 =$ _____
17	$3 \times 7 =$ _____	37	$6 \times 3 =$ _____	57	$7 \times 3 =$ _____
18	$3 \times 10 =$ _____	38	$9 \times 3 =$ _____	58	$7 \times 3 =$ _____
19	$3 \times 9 =$ _____	39	$7 \times 3 =$ _____	59	$10 \times 3 =$ _____
20	$3 \times 12 =$ _____	40	$3 \times 3 =$ _____	60	$11 \times 3 =$ _____

Time taken

:

⌚ 3 minute time limit ⌚

Score

60

What's your rock status?

**WANNABE**

< 18 correct in 3 mins

**GARAGE BAND**

18-19 correct in 3 mins

**BUSKER**

20-21 correct in 3 mins

**GIGGER**

22-24 correct in 3 mins

**UNSIGNED ACT**

25-29 correct in 3 mins

**BREAKTHROUGH ARTIST**

30-35 correct in 3 mins

**SUPPORT ACT**

36-44 correct in 3 mins

**HEADLINER**

45-59 correct in 3 mins

**ROCK STAR**

All correct in ≤ 3mins

**ROCK LEGEND**

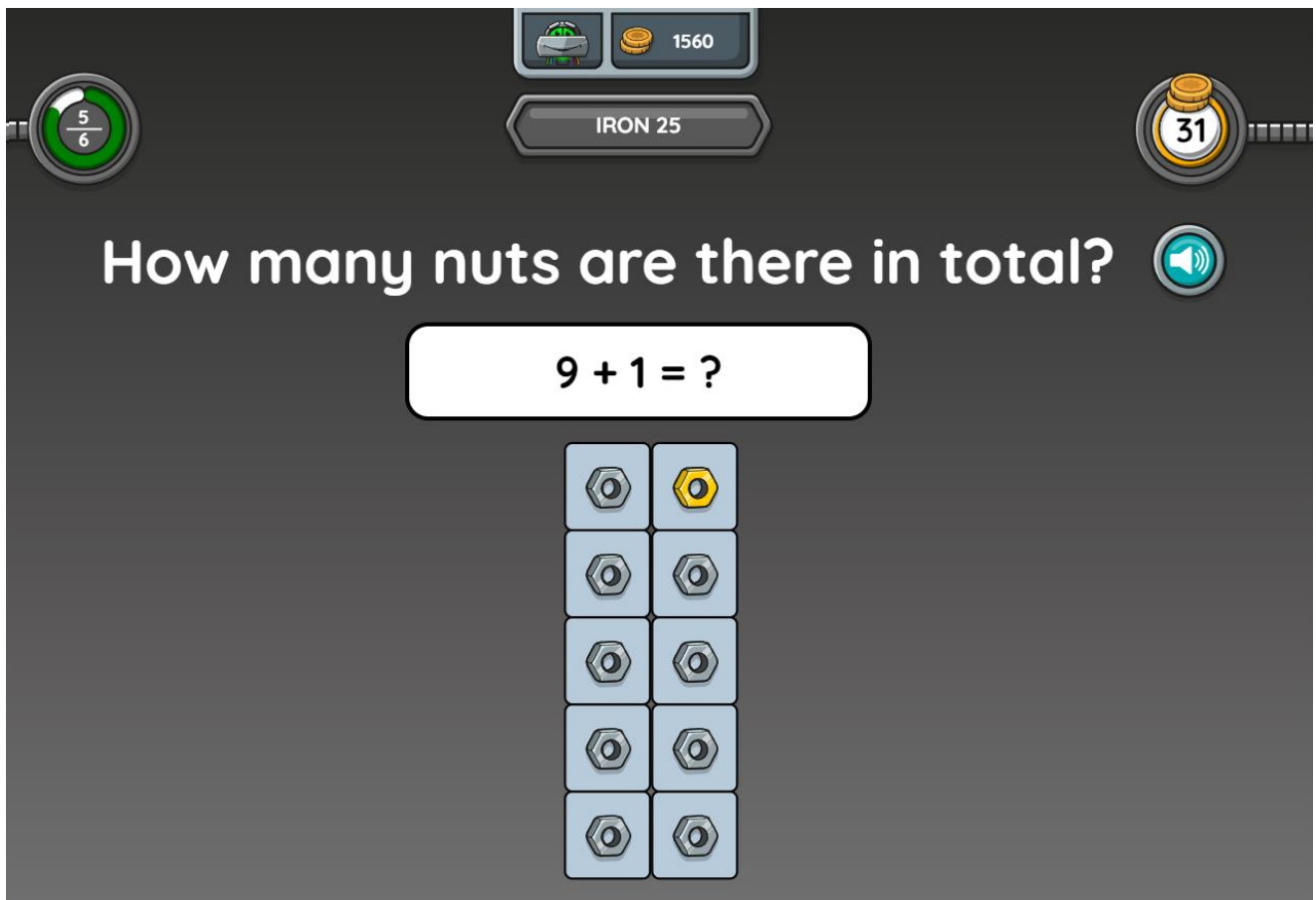
All correct in ≤ 2min

**ROCK HERO**

All correct in ≤ 1 min

**TIMES TABLES  
ROCK STARS**

## Appendix E: Example Numbots



The interface shows a progress meter at 5/6, a score of 1560, and an 'IRON 25' level. The question is 'How many nuts are there in total?'. Below it is a text box with the equation  $9 + 1 = ?$ . A visual representation shows two columns of nuts: the left column has 9 grey nuts and the right column has 1 yellow nut.

5/6

1560

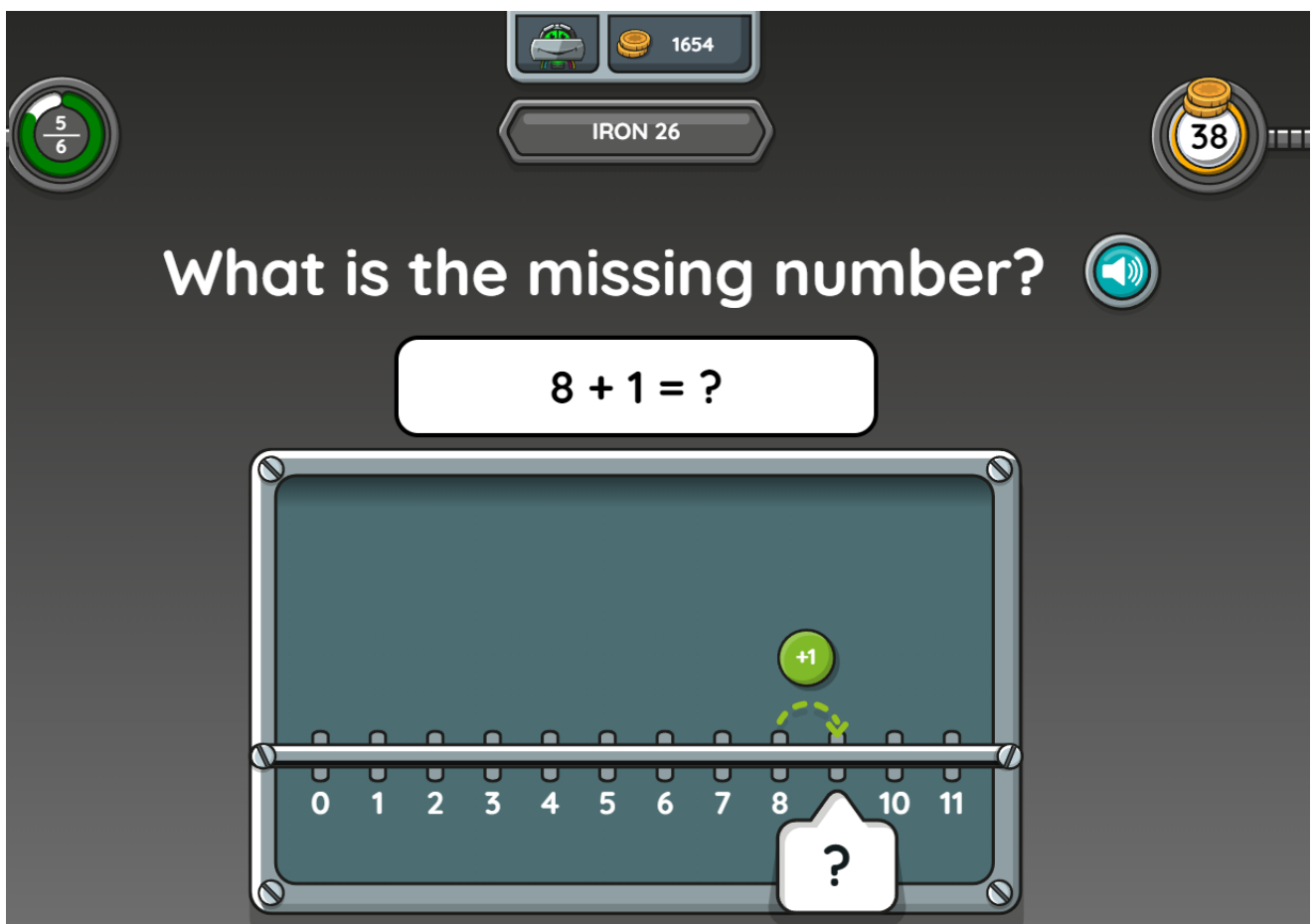
IRON 25

31

How many nuts are there in total?

$9 + 1 = ?$

9 grey nuts and 1 yellow nut



The interface shows a progress meter at 5/6, a score of 1654, and an 'IRON 26' level. The question is 'What is the missing number?'. Below it is a text box with the equation  $8 + 1 = ?$ . A number line from 0 to 11 is shown with a green circle labeled '+1' above the number 8 and a dashed arrow pointing to the next tick mark. A speech bubble with a question mark is positioned below the number line.

5/6

1654

IRON 26

38

What is the missing number?

$8 + 1 = ?$

Number line from 0 to 11 with a green circle labeled '+1' above 8 and a dashed arrow pointing to the next tick mark. A speech bubble with a question mark is below the number line.




## Appendix F: Example End of Unit Assessment (WWRM)

## Year 3

## Place Value Assessment

Name \_\_\_\_\_

Anna has made a number.

Hundreds	Tens	Ones
		

What number has Anna made?

Is the number odd or even?

How do you know?



1 mark

1 mark

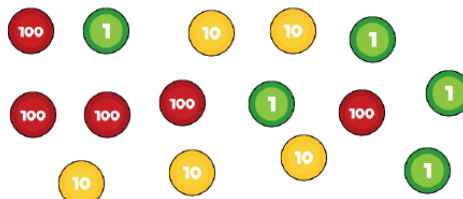
2 Circle the number that has the digit 7 in the tens column.

1 mark

3 Max is making a number using some counters.  
Max chooses 6 counters.

He makes a number greater than 300

Circle the counters Max could have chosen.



1 mark

4 Match the numbers.

Six hundred and six 676

Six hundred and sixty	606
-----------------------	-----

Six hundred and seventy-six	660
-----------------------------	-----

2 mark

5 Complete the missing numbers.

255	265	275				
-----	-----	-----	--	--	--	--

2 marks

**6** Here are some digit cards.



Max uses the cards to make a 3 digit number.  
Write down all the numbers between 250 and 550 Max can make.

2 marks

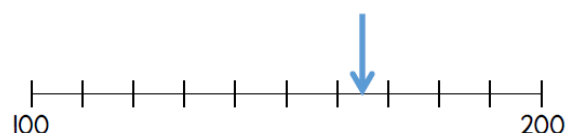
7 What is 100 less than 719?

What is 10 more than 97?

What is 10 less than 205?

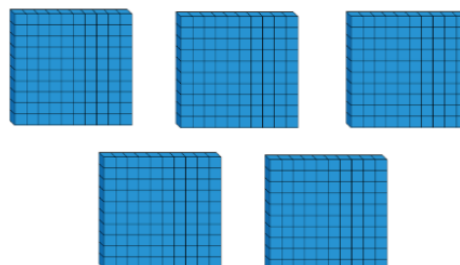
3 marks

8 What number is the arrow pointing to?



1 mark

9 How many tens are there in 500?



1 mark

Circle how confident you feel with place value.

1	2	3	4	5
Not confident				Very confident

## Appendix G - Progression of Mathematical Vocabulary