



# Holy Trinity Maths Portfolio

James Payne





# Maths at Holy Trinity

## Intent

Pupils deserve a high-quality, structured, and well-presented Maths curriculum that prepares them for their future.

Through the White Rose scheme of work, pupils have access to a spiral curriculum that aims to consistently challenge and support learning. This is paired with high-quality, targeted interventions for pupils who require additional support; as well as fun and engaging lessons.



# Maths at Holy Trinity

## Implementation

Maths lessons in Holy Trinity are clearly differentiated to allow all pupils to be both supported and challenged. Through the use of manipulatives in lessons, pupils can take control of their own learning in the way that suits them best, and this helps to drive good progress.

The structure of lessons, with a focus on every pupil accessing high-quality arithmetic and reasoning practice, builds students understanding of core concepts.



# Maths at Holy Trinity

## Impact

Through regular assessment, both summary and formative, teachers can see that the vast majority of pupils are making good progress throughout the year.

Although this year has been challenging, with various periods of home-learning and lockdown, pupils have continued to build their skills and understanding across the curriculum. This has been supported through the 'curriculum prioritisation' focus that we embarked upon at the start of the year.





# The Maths Journey at Holy Trinity

At Holy Trinity we follow the White Rose scheme of work. This is a nationally recognised spiral curriculum, that aims to provide children with strong foundational arithmetic understanding, as well as high-quality Problem Solving and Reasoning questions.

Each session is tailor planned to the children in the classroom, with the intention of supporting, and challenging, each child.

|        | Autumn                           | Spring             | Summer             |
|--------|----------------------------------|--------------------|--------------------|
| Year R | <u>Reception Yearly Overview</u> |                    |                    |
| Year 1 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |
| Year 2 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |
| Year 3 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |
| Year 4 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |
| Year 5 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |
| Year 6 | <u>Autumn Term</u>               | <u>Spring Term</u> | <u>Summer Term</u> |



# Maths in EYFS

*We understand that children are naturally inquisitive and love to experiment, and this is core to our approach at developing mathematical understanding for our youngest pupils.*

*The use of manipulatives is prioritised in every session to allow all pupils to access the lesson and broaden their understanding across all topics.*







# Maths in EYFS

Children choose their own activity from a range provided by their teachers, and practice a range of skills including number recognition and measuring.

Our outdoor learning environment is designed to allow pupils to engage with learning at all times. Maths is all around us, and this means that we can make the most out of every learning opportunity.







# Maths in Year 1

*As we move into Year 1, we have the same motto behind our teaching; that it should be engaging and challenging for all pupils.*

*The use of manipulatives is emphasised, while also introducing core principles such as sharing and making things equal. Children also continue to develop their understanding of numbers, focusing on numbers up to 100.*







# Maths in Year 1

When completing work, pupils are provided with concrete manipulatives to practice with, as well as pictorial examples to help to support their learning.

This transition helps to prepare pupils for the step to more abstract concepts that are developed as we reach Year 2.

The pupils love to share their work, and take pride in explaining what they have been working on.







# Maths in Year 2

Year 2 is a really important year for our pupils as they start to develop their reasoning skills. We focus in particular on explaining why something can or can not be true, as well as the correct mathematical vocabulary to use.

Pupils structure their answers using stem sentences, and begin to grapple with more complex ideas.







# Maths in Year 2

In Year 2, pupils begin to understand which manipulatives are useful for different operations. This will be supported next year with the introduction of our manipulatives policy which will help to support teachers in their practice across all ages.

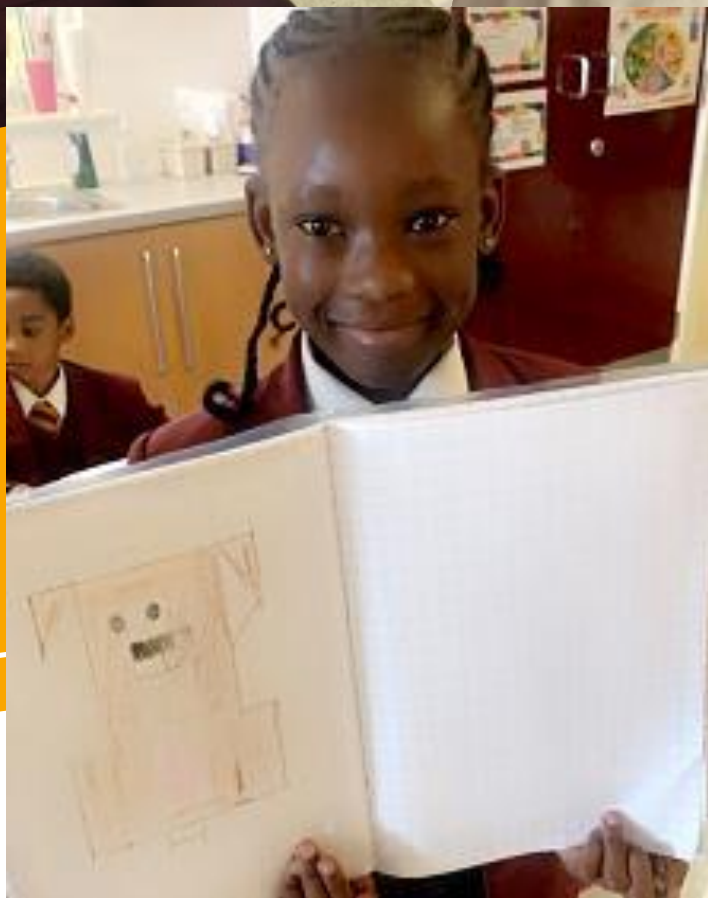
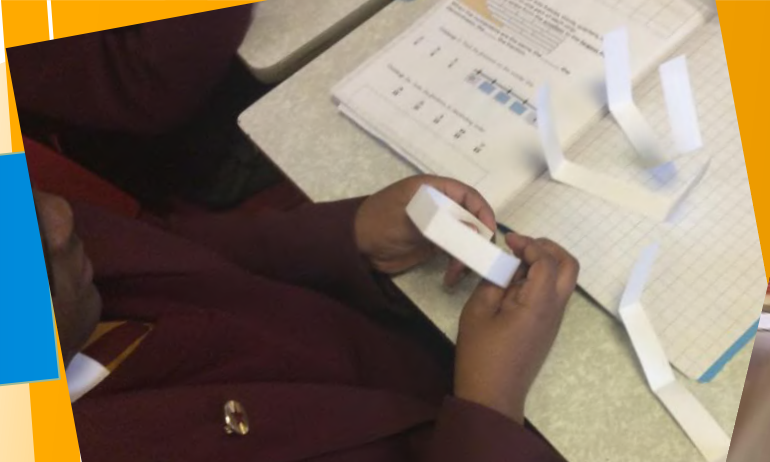
As their reasoning skills develop, pupils will also tackle more challenging concepts and topics.





# Maths in Year 3

Following the SATs at the end of Year 2, we use the assessment data collected to support pupils in their Maths in Year 3. Through the use of targeted interventions by support staff, as well as Mastery led lessons, we build all pupils confidence and attitudes towards Maths.







# Maths in Year 3

One of the focuses for the next year is to ensure that Reasoning questions are accessible to all pupils, and not just those who complete the arithmetic sections of each lesson.

Through this, we will be able to broaden the learning opportunities for all pupils, and ensure that everyone can develop their reasoning skills appropriately.







# Maths in Year 4

By Year 4, pupils should be consolidating their understanding of Times Tables, ready for the Times Tables check at the end of the year. 2022 will be the first year that this is available to all Year 4 pupils, however we will be practicing before then.

This core understanding will also help them to access multiple different Maths topics such as multiplication, division, shape and fractions.







# Maths in Year 4

As pupils become more confident in their own Maths understanding, we aim to see an increase in the types of explanations that they provide to reasoning questions.

Use of self and peer-assessment allows pupils to more accurately understand which topics they are doing well with; and reflections at the end of lessons allow children to explain their own ideas freely.



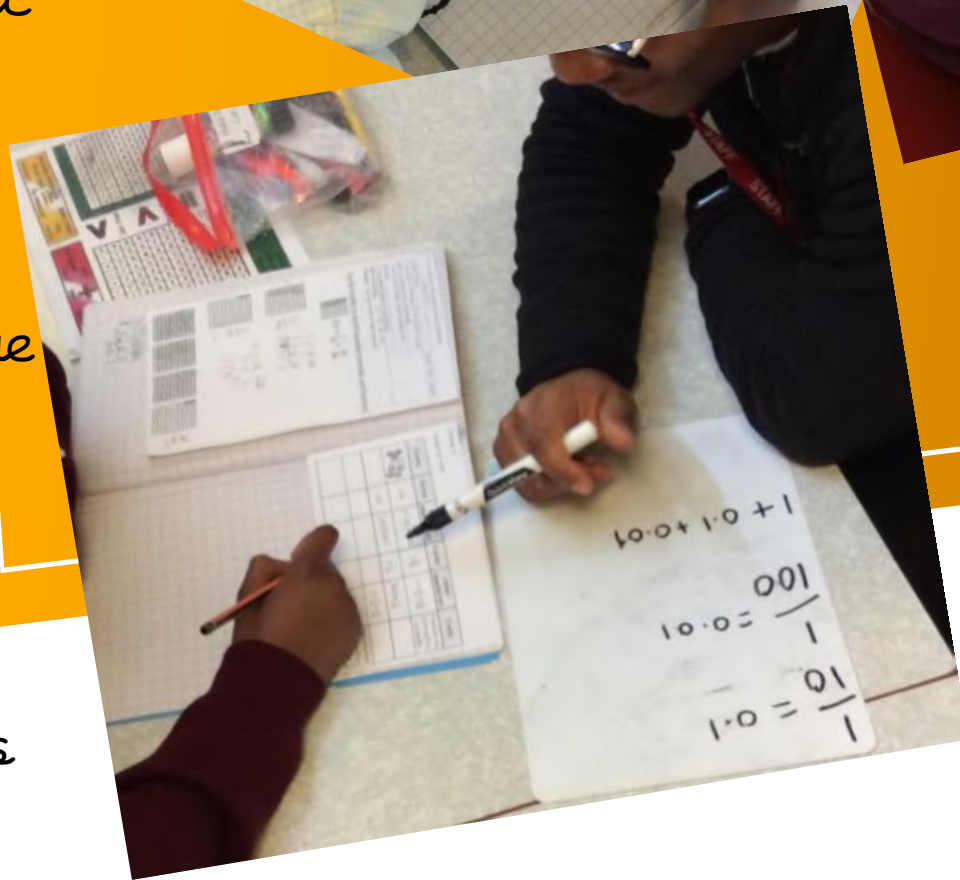




# Maths in Year 5

By Year 5, pupils will have covered the majority of topic areas already and are broadening and deepening their understanding within these. As the numbers get larger, pupils prior understanding of place value and the core operations is tested and broadened.

Although the majority of misconceptions will already have been addressed in previous years, this can often reveal cracks in pupils understanding.







# Maths in Year 5

Across all year groups, there will be a focus next year on open-ended problem solving to allow pupils to understand that there is not always a single 'correct' answer.

This type of advanced reasoning skills is particularly important in Year 5 and 6 as pupils are challenged with more obscure and niche examples.







# Maths in Year 6

Finally, in Year 6, pupils reach the end of their Maths journey at Holy Trinity. Although the ultimate goal is to achieve well in their SATs, we believe that this is not the priority and instead focus on ensuring that we have created well-rounded Mathematicians throughout their education here.







# Maths in Year 6

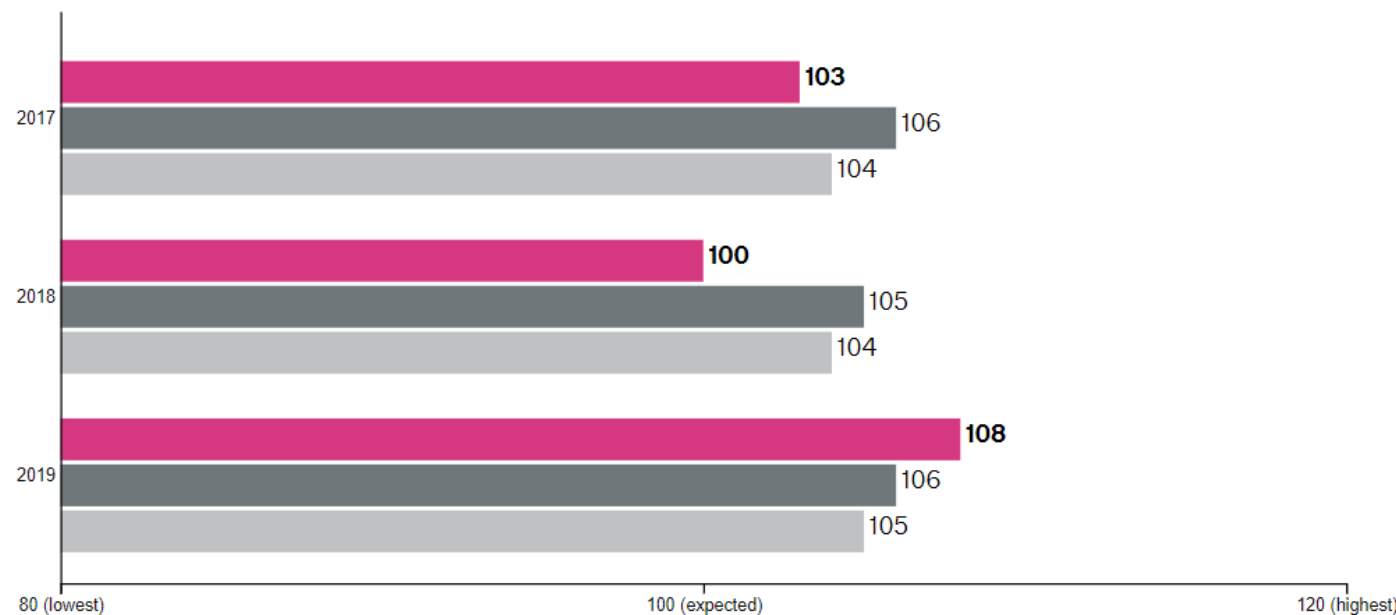
Our goal is to ensure that as many children as possible achieve the best results possible in their SATs.

From the last set of results (2019), we saw an average score of 108 out of 120, which was above Local Authority and England averages. This was also an increase on previous years.

## Average score in maths ?



■ School ■ Local authority state-funded schools ■ England state-funded schools



Average score in maths for 2017-2019



# Progress

All 4 are pupils who have not returned to school since lockdown ended.

These are pupils who have joined throughout the year.

## Progress Breakdown

Y1, Y2, Y3, Y4, Y5, Y6 - All Pupils (247 pupils)

| All Pupils (247 pupils)       | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 84 (34.0%)  | 84.0 (34.0%) |
| Progressed by 5 steps         | 50 (20.2%)  | 50.0 (20.2%) |
| Progressed by 4 steps         | 49 (19.8%)  | 49.0 (19.8%) |
| Progressed by 3 steps         | 29 (11.7%)  | 29.0 (11.7%) |
| Progressed by 2 steps         | 8 (3.2%)    | 8.0 (3.2%)   |
| Progressed by 1 step          | 3 (1.2%)    | 3.0 (1.2%)   |
| No steps progress             | 4 (1.6%)    | 4.0 (1.6%)   |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 20 (8.1%)   | 20.0 (8.1%)  |

When adjusted to remove the 'missing data' variables listed above, the accurate percentages are:

|                           |       |   |
|---------------------------|-------|---|
| Progressed by 6(+) steps: | 37.7% | } 82.1% of pupils have already made the 4 points expected progress. |
| Progressed by 5 steps:    | 22.4% |   |
| Progressed by 4 steps:    | 22.0% |   |
| Progressed by 3 steps:    | 13.0% |   |
| Progressed by 2 steps:    | 3.6%  |   |
| Progressed by 1 steps:    | 1.3%  |   |
| No steps progress:        | -     |   |
| Regressed:                | -     |   |

Data from 2020-21 academic year.





# Progress - KSI

## Progress Breakdown Y1, Y2 - All Pupils (75 pupils)

|  | Pupils (%) | Mathematics                                |
|--|------------|--|
|  |            | <b>Pupils (%) making 4+ steps progress</b> |
| <b>All Pupils</b>                      | 75 (100%)  | 47 (62.7%)                                 |
| <b>Males</b>                           | 29 (38.7%) | 16 (55.2%)                                 |
| <b>Females</b>                         | 46 (61.3%) | 31 (67.4%)                                 |
| <b>FSM</b>                             | 32 (42.7%) | 19 (59.4%)                                 |
| <b>Not FSM</b>                         | 43 (57.3%) | 28 (65.1%)                                 |
| <b>Pupil Premium</b>                   | 31 (41.3%) | 19 (61.3%)                                 |
| <b>Not Pupil Premium</b>               | 44 (58.7%) | 28 (63.6%)                                 |
| <b>SEN Support</b>                     | 2 (2.7%)   | 2 (100%)                                   |
| <b>Education, health and care plan</b> | 2 (2.7%)   | 0 (0%)                                     |
| <b>Not SEN</b>                         | 71 (94.7%) | 45 (63.4%)                                 |
| <b>Missing Data</b>                    |            | 7 (9.3%)                                   |

## Progress Breakdown Y1, Y2 - All Pupils (75 pupils)

| Year 1 (36 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 0 (0%)      | 0.0 (0%)     |
| Progressed by 5 steps         | 3 (8.3%)    | 3.0 (8.3%)   |
| Progressed by 4 steps         | 24 (66.7%)  | 24.0 (66.7%) |
| Progressed by 3 steps         | 4 (11.1%)   | 4.0 (11.1%)  |
| Progressed by 2 steps         | 2 (5.6%)    | 2.0 (5.6%)   |
| Progressed by 1 step          | 0 (0%)      | 0.0 (0%)     |
| No steps progress             | 0 (0%)      | 0.0 (0%)     |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 3 (8.3%)    | 3.0 (8.3%)   |

| Year 2 (39 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 1 (2.6%)    | 1.0 (2.6%)   |
| Progressed by 5 steps         | 4 (10.3%)   | 4.0 (10.3%)  |
| Progressed by 4 steps         | 15 (38.5%)  | 15.0 (38.5%) |
| Progressed by 3 steps         | 11 (28.2%)  | 11.0 (28.2%) |
| Progressed by 2 steps         | 3 (7.7%)    | 3.0 (7.7%)   |
| Progressed by 1 step          | 1 (2.6%)    | 1.0 (2.6%)   |
| No steps progress             | 0 (0%)      | 0.0 (0%)     |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 4 (10.3%)   | 4.0 (10.3%)  |



# Progress - LKS2

Progress Breakdown  
Y3, Y4 - All Pupils (83 pupils)

|  | Pupils (%) making 4+ steps progress |             |
|--|-------------------------------------|-------------|
|  | Pupils (%)                          | Mathematics |
| <b>All Pupils</b>                      | 83 (100%)                           | 15 (18.1%)  |
| <b>Males</b>                           | 40 (48.2%)                          | 6 (15.0%)   |
| <b>Females</b>                         | 43 (51.8%)                          | 9 (20.9%)   |
| <b>FSM</b>                             | 34 (41.0%)                          | 5 (14.7%)   |
| <b>Not FSM</b>                         | 49 (59.0%)                          | 10 (20.4%)  |
| <b>Pupil Premium</b>                   | 34 (41.0%)                          | 5 (14.7%)   |
| <b>Not Pupil Premium</b>               | 49 (59.0%)                          | 10 (20.4%)  |
| <b>SEN Support</b>                     | 2 (2.4%)                            | 0 (0%)      |
| <b>Education, health and care plan</b> | 2 (2.4%)                            | 0 (0%)      |
| <b>Not SEN</b>                         | 79 (95.2%)                          | 15 (19.0%)  |
| <b>Missing Data</b>                    |                                     | 6 (7.2%)    |

Progress Breakdown  
Y3, Y4 - All Pupils (83 pupils)

| Year 3 (49 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 0 (0%)      | 0.0 (0%)     |
| Progressed by 5 steps         | 1 (2.0%)    | 1.0 (2.0%)   |
| Progressed by 4 steps         | 5 (10.2%)   | 5.0 (10.2%)  |
| Progressed by 3 steps         | 16 (32.7%)  | 16.0 (32.7%) |
| Progressed by 2 steps         | 17 (34.7%)  | 17.0 (34.7%) |
| Progressed by 1 step          | 3 (6.1%)    | 3.0 (6.1%)   |
| No steps progress             | 2 (4.1%)    | 2.0 (4.1%)   |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 5 (10.2%)   | 5.0 (10.2%)  |

| Year 4 (34 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 0 (0%)      | 0.0 (0%)     |
| Progressed by 5 steps         | 2 (5.9%)    | 2.0 (5.9%)   |
| Progressed by 4 steps         | 7 (20.6%)   | 7.0 (20.6%)  |
| Progressed by 3 steps         | 8 (23.5%)   | 8.0 (23.5%)  |
| Progressed by 2 steps         | 11 (32.4%)  | 11.0 (32.4%) |
| Progressed by 1 step          | 5 (14.7%)   | 5.0 (14.7%)  |
| No steps progress             | 0 (0%)      | 0.0 (0%)     |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 1 (2.9%)    | 1.0 (2.9%)   |





# Progress - UKS2

## Progress Breakdown Y5, Y6 - All Pupils (89 pupils)

|  | Pupils (%) making 4+ steps progress |             |
|--|-------------------------------------|-------------|
|  | Pupils (%)                          | Mathematics |
| <b>All Pupils</b>                      | 89 (100%)                           | 45 (50.6%)  |
| <b>Males</b>                           | 45 (50.6%)                          | 20 (44.4%)  |
| <b>Females</b>                         | 44 (49.4%)                          | 25 (56.8%)  |
| <b>FSM</b>                             | 43 (48.3%)                          | 24 (55.8%)  |
| <b>Not FSM</b>                         | 46 (51.7%)                          | 21 (45.7%)  |
| <b>Pupil Premium</b>                   | 42 (47.2%)                          | 24 (57.1%)  |
| <b>Not Pupil Premium</b>               | 47 (52.8%)                          | 21 (44.7%)  |
| <b>SEN Support</b>                     | 8 (9.0%)                            | 5 (62.5%)   |
| <b>Education, health and care plan</b> | 3 (3.4%)                            | 1 (33.3%)   |
| <b>Not SEN</b>                         | 78 (87.6%)                          | 39 (50.0%)  |
| <b>Missing Data</b>                    |                                     | 3 (3.4%)    |

## Progress Breakdown Y5, Y6 - All Pupils (89 pupils)

| Year 5 (36 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 0 (0%)      | 0.0 (0%)     |
| Progressed by 5 steps         | 4 (11.1%)   | 4.0 (11.1%)  |
| Progressed by 4 steps         | 7 (19.4%)   | 7.0 (19.4%)  |
| Progressed by 3 steps         | 17 (47.2%)  | 17.0 (47.2%) |
| Progressed by 2 steps         | 6 (16.7%)   | 6.0 (16.7%)  |
| Progressed by 1 step          | 1 (2.8%)    | 1.0 (2.8%)   |
| No steps progress             | 1 (2.8%)    | 1.0 (2.8%)   |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |

| Year 6 (53 pupils)            | Mathematics | Average      |
|-------------------------------|-------------|--------------|
| Progressed by 6 steps or more | 15 (28.3%)  | 15.0 (28.3%) |
| Progressed by 5 steps         | 12 (22.6%)  | 12.0 (22.6%) |
| Progressed by 4 steps         | 7 (13.2%)   | 7.0 (13.2%)  |
| Progressed by 3 steps         | 11 (20.8%)  | 11.0 (20.8%) |
| Progressed by 2 steps         | 3 (5.7%)    | 3.0 (5.7%)   |
| Progressed by 1 step          | 1 (1.9%)    | 1.0 (1.9%)   |
| No steps progress             | 1 (1.9%)    | 1.0 (1.9%)   |
| Regressed                     | 0 (0%)      | 0.0 (0%)     |
| Missing Data                  | 3 (5.7%)    | 3.0 (5.7%)   |



# Progress

-current academic year

| All Pupils (223 pupils)       | Mathematics | Average       |
|-------------------------------|-------------|---------------|
| Progressed by 6 steps or more | 8 (3.6%)    | 8.0 (3.6%)    |
| Progressed by 5 steps or more | 26 (11.7%)  | 26.0 (11.7%)  |
| Progressed by 4 steps or more | 112 (50.2%) | 112.0 (50.2%) |
| Progressed by 3 steps or more | 176 (78.9%) | 176.0 (78.9%) |
| Progressed by 2 steps or more | 204 (91.5%) | 204.0 (91.5%) |
| Progressed by 1 step or more  | 211 (94.6%) | 211.0 (94.6%) |
| No steps progress             | 4 (1.8%)    | 4.0 (1.8%)    |
| Regressed                     | 0 (0%)      | 0.0 (0%)      |
| Missing Data                  | 8 (3.6%)    | 8.0 (3.6%)    |

*Cumulative progress breakdown - whole school.*

| All Pupils (65 pupils)        | Mathematics |
|-------------------------------|-------------|
| Progressed by 6 steps or more | 1 (1.5%)    |
| Progressed by 5 steps or more | 1 (1.5%)    |
| Progressed by 4 steps or more | 20 (30.8%)  |
| Progressed by 3 steps or more | 45 (69.2%)  |
| Progressed by 2 steps or more | 58 (89.2%)  |
| Progressed by 1 step or more  | 61 (93.8%)  |
| No steps progress             | 1 (1.5%)    |
| Regressed                     | 0 (0%)      |
| Missing Data                  | 3 (4.6%)    |

KSI

LKS2

|                               |            |
|-------------------------------|------------|
| Progressed by 6 steps or more | 1 (1.2%)   |
| Progressed by 5 steps or more | 10 (11.6%) |
| Progressed by 4 steps or more | 45 (52.3%) |
| Progressed by 3 steps or more | 73 (84.9%) |
| Progressed by 2 steps or more | 80 (93.0%) |
| Progressed by 1 step or more  | 80 (93.0%) |
| No steps progress             | 1 (1.2%)   |
| Regressed                     | 0 (0%)     |
| Missing Data                  | 5 (5.8%)   |

| All Pupils (72 pupils)        | Mathematics |
|-------------------------------|-------------|
| Progressed by 6 steps or more | 6 (8.3%)    |
| Progressed by 5 steps or more | 15 (20.8%)  |
| Progressed by 4 steps or more | 47 (65.3%)  |
| Progressed by 3 steps or more | 58 (80.6%)  |
| Progressed by 2 steps or more | 66 (91.7%)  |
| Progressed by 1 step or more  | 70 (97.2%)  |
| No steps progress             | 2 (2.8%)    |
| Regressed                     | 0 (0%)      |

UKS2

*Data from 2021-22 academic year.*





# Times Tables focus

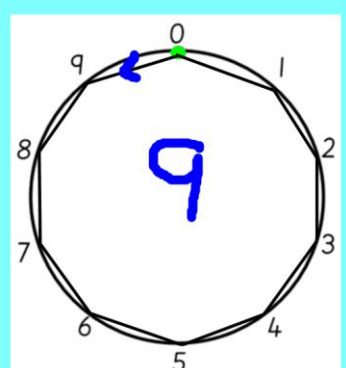
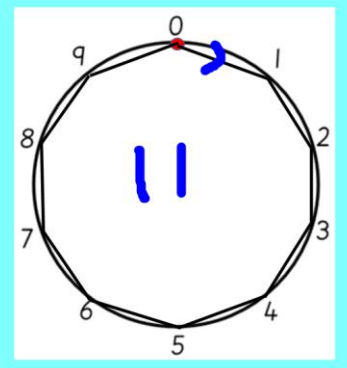


This year, we have introduced a more focused scheme of work for Times Tables. As part of this, all years from 2-4 have a focus Times Table, which they will teach across starters, through games, and in discreet lessons which focus on deepening pupil understanding.

The aim of this it to support pupils to learn these facts to automaticity, and help to ensure that these are secure by the end of Year 4 ready for the Multiplication check, as well as in Year 6 for SATs.


The times table that each year group focuses on is based on the National Curriculum, as well as their previous learning that they have encountered.

What do you notice about the two diagrams that we have made?



Why does this happen?

$7 \times 1 = 7$   
 Multiplicand  $\times$  Multiplier = Product

 OR

Here is my array to show  $7 \times 1 = 7$   
 I have 7 cubes, because 7 is my multiplicand, and I have made it one time.





# Enrichment and Enhancement

## Maths week:

- A week of Maths activities around a specific theme. This years theme was 'Saving the Summer holidays'.
- Each year group had custom-made activities aimed to practice topics that their teachers had identified as requiring more support. The planning of these also helped to introduce the new structure for next year that focuses on reducing teacher talk and having more pupil-led learning.







## Enrichment and Enhancement

All year:

- Throughout the year, we have various events and schemes that aim to build engagement. Numbots and TTRockstars are two apps that we use both in school and at home to engage pupils and get them practicing their basic number skills and Times Tables respectively.
- We use these apps to gauge pupils understanding, boost pupils who require more support on a specific topic, and to engage pupils and make them more excited for Maths. Throughout the year, awards are given to those who engage and push themselves.





Congratulations to \_\_\_\_\_

for being a Times Tables Rockstar champion!

**WELL DONE!**

Date 19<sup>th</sup> November, 2020 Signed \_\_\_\_\_

twinkl



Congratulations to \_\_\_\_\_

for fantastic effort on Numbots!

**WELL DONE!**

Date 19<sup>th</sup> November, 2020 Signed \_\_\_\_\_

twinkl



This certificate is awarded to



for fantastic effort and determination during Maths Week 2021.

We rescued the trophy, and stopped 'Dangerous' Dan ... for now!



Date: 25<sup>th</sup> June 2021 Signed: \_\_\_\_\_





# Enrichment and Enhancement

## All year - Maths Ambassadors:

- The Maths Ambassadors are a new addition last year, and play a role in supporting with leading the subject. They have taken part in presenting our Maths week to the pupils during assembly, as well as gathering pupils viewpoints on the subject.
- Each year, the goal is to recruit new pupils who want to be part of the Maths Ambassador team. This will ensure that as many pupils as possible can engage more with the subject. We also aim to lead trips for the ambassadors in future years.
- This year, they have supported with organising Maths week, and will assist with the school assemblies that week. They have also supported during Movember, and with the tuck shop.



# Enrichment and Enhancement



The Royal Institution  
Science Lives Here

*Previous years / to be continued in 2022...*

- As part of the Windmill cluster, we have access to a range of different opportunities. Two of these are the Maths Olympiad for Year 3 pupils, and the Masterclass programme for Gifted and Talented pupils in Year 5 and 6. The Masterclass programme was held in our school during the 2019-20 academic year, and was a great success, which we aim to reintroduce when we are able to.*
- Alongside these schemes, we are always looking to provide our pupils with enrichment opportunities to challenge and extend.*
- The 'Maths on the Move' scheme has been a great example of this, which has helped lower attaining pupils to engage with Maths in a fun and exciting way.*





# Enrichment and Enhancement

In the new year, we will have a focus on our Maths displays to ensure that these are engaging and have a marked impact on pupils understanding.

Here are some examples that are around the school at the minute that show pupil engagement and work that they have been completing.





# Future plans

- Increase in pupil led learning, with teacher talk reduced to a minimum. ★
- Continue to differentiate activities for pupils, but ensure that all children get access to manipulatives (particularly in KS2 where this tends to drop off). One manipulative per lesson / series.
- Emphasis on every child accessing reasoning challenges. Make sure these are scaffolded, with a similar question used as an example to develop understanding. ★
- Share key vocabulary and LI's, but use actions to support understanding for EAL and SEN pupils in particular. ★
- Focus on booster groups and schemes to ensure that all pupils can catch up from missed learning opportunities during lockdown. ★
- Creation of a manipulatives policy for all year groups.