



**All Saints  
Schools Trust**

**Great Whelnetham Primary  
School**

**Maths Subject Review  
27.06.23**

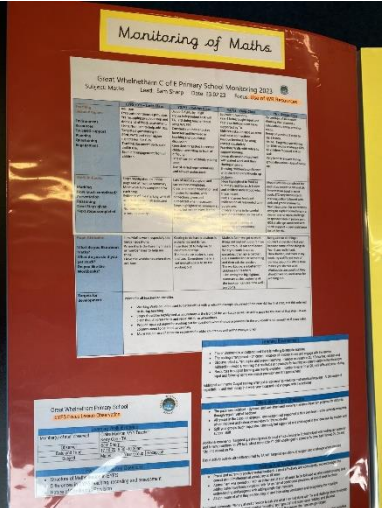
**Melanie Barrow**

<b>Subject Focus</b>	<b>Maths</b>
<b>Curriculum Lead</b>	<b>Sam Sharp</b>


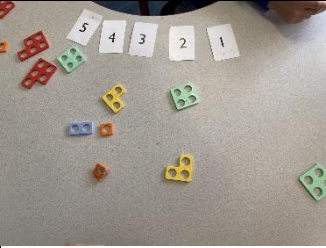


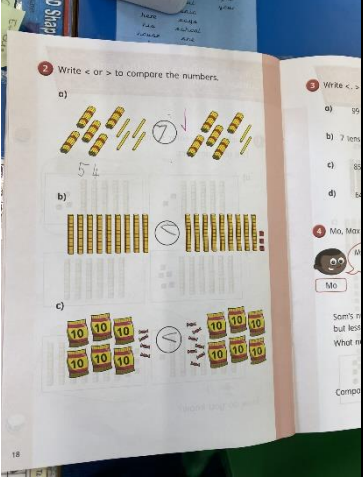
# Meeting with Subject Lead

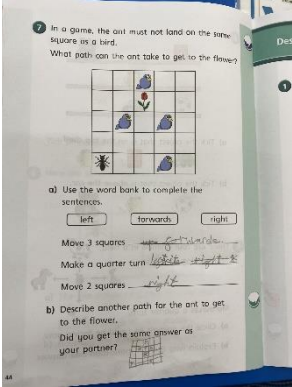
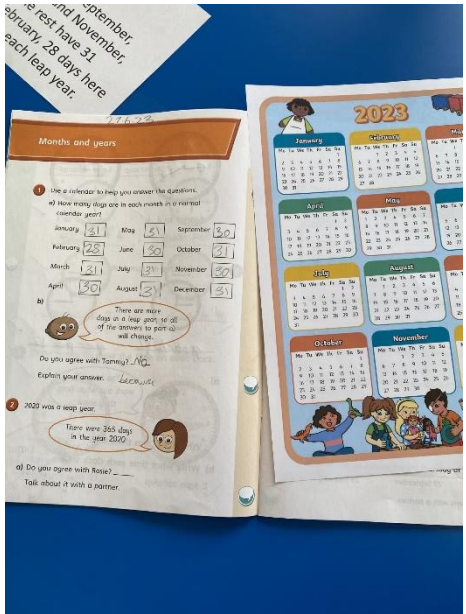
Questions	Response
<ul style="list-style-type: none"> <li>❖ What led to you becoming the <b>maths</b> lead?</li> <li>❖ What training have you had in leading <b>maths</b>?</li> <li>❖ What is your intent for <b>maths</b>?</li> <li>❖ How is your <b>maths</b> curriculum designed? What is your model of progression in maths?</li> <li>❖ Why have you chosen this approach?</li> <li>❖ How do you ensure children remember key information?</li> <li>❖ How have you made sure your curriculum is at least as broad and ambitious as the National Curriculum? Could you outline the scope and challenge of your maths curriculum?</li> <li>❖ What does '<b>maths</b>' look like in the early years?</li> <li>❖ How does your curriculum challenge greater depth children?</li> <li>❖ How do pupils with SEND access the curriculum?</li> </ul>	<ul style="list-style-type: none"> <li>• I started off being co-maths lead with a KS1 colleague and we divided the role between Key Stage One and Two. We did Maths Mastery. It was the natural progression for me to take over completely when she left the school.</li> <li>• I have always been passionate about maths and keen on teaching it. I like to make it relatable for the children. I am enjoying the Mastery approach because it widens the appeal of maths and makes it accessible and more simple, for pupils to understand.</li> <li>• I will also be working with the Angles Maths Hub on mastery approaches in the coming months. It has been excellent and great CPD. This year we have been looking at intent (which is now on the school's website). We have a 3-year plan and plan to look at parental engagement/ pupils maths fluency next.</li> <li>• Intent- we have rewritten recently. It boils down to three core principles;               <ul style="list-style-type: none"> <li><b><u>All children can succeed in maths.</u></b></li> <li>1. Fluent and confident with core skills,</li> <li>2. All children can express themselves/ reason/ conjecture,</li> <li>3. Apply strategies to real-life situations.</li> </ul> </li> </ul> <p style="margin-left: 40px;">Most important things in terms of intent is for all children to <b>succeed</b> in maths.</p> <ul style="list-style-type: none"> <li>• Curriculum designed based on two things White Rose maths- lots of research and high-quality resources alongside progression document. We strive for National Curriculum plus- extends beyond where pupils need to be.</li> <li>• White Rose very securely embeds the foundations. This has helped me to feel quietly confident about the SATs results this year- the children were secure in the use of maths methods and knew how to tackle the questions.</li> <li>• Key information- recall and recap at the start of every lesson. Maths meetings- fluency practice. These are consolidations.</li> <li>• Our progression document is designed to extend pupils beyond National Curriculum objectives. High quality resources in White Rose begin this and are supplemented with other resources. Assessment across the school is consistent and daily highlighting of objectives shows clearly for each lesson if children have understood objectives covered or not.</li> <li>• Staff all monitor progress closely and the steps children have made- assessment is very embedded. Teachers make notes from every lesson with actions and extra learning/ intervention is given if children haven't quite understood objectives. This assessment feeds into pupil progress meetings.</li> <li>• As maths leader I produce a progress and outcomes report. This is presented to Governors and monitored by them.</li> <li>• Pupil progress tracked and identified. Pupil progress analysis happens in each class. As maths lead I feel really confident to discuss this across all year groups and the staff discuss this frequently.</li> <li>• Maths in Early Years starts off with number recognition, sense of number and counting. As they are a mixed age class Reception Pupils benefit from being exposed to input with Year</li> </ul>

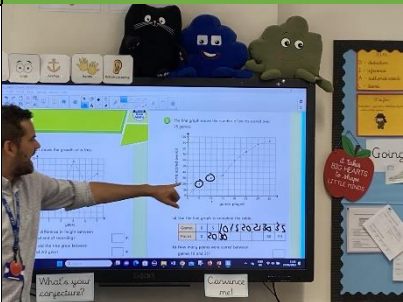


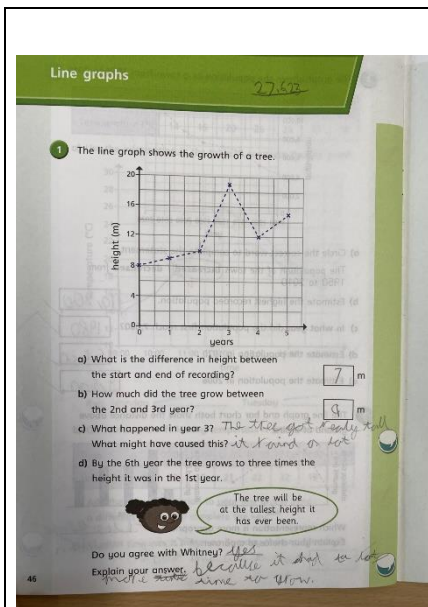
Questions	Response
<ul style="list-style-type: none"> <li>❖ If I walked into a good <b>maths</b> lesson, what would I expect to see?</li> <li>❖ What is the quality of teaching like in <b>maths</b>? How do you monitor this?</li> <li>❖ Could you tell me what I would see in the children's books?</li> <li>❖ How is <b>maths</b> assessed? Why this approach?</li> <li>❖ How have <u>you</u> supported staff in teaching <b>maths</b>?</li> <li>❖ What recent relevant training have the staff had? What has been the impact of this?</li> <li>❖ Can you explain the key priorities you have been working on recently as maths subject leader?</li> <li>❖ How do the resources you have in school enhance the teaching and learning of <b>maths</b>?</li> <li>❖ How does <b>maths</b> support the development of SMSC?</li> <li>❖ What has the school done to bring <b>maths</b> to life and take learning beyond the classroom?</li> </ul>	<ul style="list-style-type: none"> <li>❖ To start with in a good maths lesson the learning environment would include number rich displays. Place value would be displayed. Children would be engaged and ready to learn. There would be a recap of previous learning. Clearly stated goals for the lesson would be shared. Expectations would be clearly outlined. The teacher would be using White Rose Resources to great effect. There would be good class discussion and pupils would feel comfortable to engage with this. There would be group work/ paired work and moving onto independent work with extension activities for those who need it.</li> <li>❖ The quality of teaching across the school was good but has become outstanding. We have an excellent team of knowledgeable teachers backed up with quality resources.</li> <li>❖ As maths leader I have a monitoring schedule. I undertake book scrutiny with Governors. I do learning walks/ book scrutiny/ pupil perceptions. I monitor maths meetings and ensure these are taking place. Reports are written and feedback given on next steps. The impact is discussed and evaluated.</li> <li>❖ In children's books- you would notice how much pride the children take in their work. Workbooks are well kept and looked after. Learning Objectives are highlighted in relation to marking policy, Marking Policy is being used- live marking. Next steps are being responded to by pupils with the use of purple pen.</li> <li>❖ Maths assessment- NFER are used for termly assessment/ end of block assessment for White Rose. Years 2 and 6 are doing past SATS papers.</li> <li>❖ Training- Staff have had training on maths meetings, monitoring. Liz Gibbs from the maths hub has delivered two sets of training which was well received. A bank of resources have been made available for staff- maths hub resources are available.</li> <li>❖ Lots happens at the end of the day; staff have lots of informal chats about progress and pupil's progression. Expectations are clear. As maths lead, I audit resources regularly but there has been investment, and these have increased significantly. Recently we purchased scales which have assisted younger pupils with weighing and understanding this topic.</li> <li>❖ Priorities- Through our work with Angles Maths Hub we are introducing key instant recall facts KIRFS to help with recall and fluency. We want to work further with parents- we are introducing maths mornings. We want to help parents know how to support pupils further at home. We are introducing White Rose homework resources- homework will be linked to weekly learning. Mixed age classes moving to new White Rose schemes of work.</li> <li>❖ SMSC- encouraging social skills in terms of teamwork and collaboration.</li> <li>❖ We do lots of events to bring maths to life and take learning beyond the classroom. STEM day encouraged girls to participate in maths and Science and this event was held at a local High School. We have an annual NSPCC Number Day. We have had two SUM Dog events.</li> <li>❖ Maths lead is incredible supportive of Governors monitoring and the relationship between Governance maths lead and the subject co-ordinator is a strong one.</li> </ul>
	

# Lesson Visits

Class	Notes
<p data-bbox="92 255 320 353">Mrs Masson Reception Year 1 Larks class</p> 	 <p data-bbox="804 219 1442 421">The lesson began with an initial input from the teacher to Reception and Year One. The lesson objective was clearly displayed. Year R- 1 more and 1 less within 20". Year One- "Comparing numbers within the same number of tens".</p> <p data-bbox="469 456 1506 658">Reception pupils were then working on continuous provision activities, These involved making numbers using tens and playdough in a tough tray. Activities had been organised outside too including pebbles in a tough tray to match numbers with one more and one less. The TA was supervising groups inside and out extremely well. All pupils were engaged in activities and keen to share and describe what they were doing.</p>  <p data-bbox="868 694 1506 958">The classroom space is utilised well. The teacher was conducting further direct teaching with Year One who were using tens and units apparatus to compare numbers. These resources enhanced the White Rose scheme of work and made comparisons immediately visual and easier to understand. The pupils were using the mathematical symbols <math>&lt;</math> <math>&gt;</math> <math>=</math> well.</p> <p data-bbox="868 994 1107 1227">Many pupils were exceeding the objective and one pupil was keen to demonstrate his mathematical knowledge</p> <p data-bbox="469 1232 1107 1330">informing us that "100 is <math>10 \times 10</math>". The pupils all demonstrated an extremely secure knowledge of place value.</p>  <p data-bbox="469 1361 1490 1599">The Year One pupils we spoke to were extremely articulate and knowledgeable about their work. They used correct mathematical vocabulary such as "place value, tens, hundreds column". They were using and accessing resources well to complete written tasks. Live marking was being used to give immediate feedback and showed that there were highly successful outcomes for this lesson.</p>  <p data-bbox="469 1630 1474 1800">The teacher has an extremely secure knowledge of the attainment of each pupil. Objectives are highlighted after every lesson to show if every pupil is achieving and even exceeding objectives. Where pupils need to clarify their understanding further this is recorded with highlighting in orange pen and the teacher goes over the objective again.</p> <p data-bbox="469 1832 1474 1904">There is an extremely secure and embedded procedure in place for teaching, monitoring and assessment. This is enabling every pupil to achieve well.</p> <p data-bbox="469 1935 1474 2065"><b>A highly successful lesson in which children demonstrated impressive mathematical knowledge. The teacher's secure subject knowledge and understanding of the Early Years and Lower Key Stage Two is impressive.</b></p>

Class	Notes
<p>Nikki Tyler Year 2 and 3 Robins Class</p> 	<p>The learning objective was clear for each class; Year 2- problem solving with position Year 3 months and Years Year 2 had initial input and then went to their tables to begin their task. At 10.07am the teacher began the initial input with the Year 3.</p>  <p>Good redirection from TA of a pupil. All pupils in Year 2 on task.</p> <p>Year 3 demonstrated really good modelling and use of interactive White Rose resources. "Tiny the Tortoise" used to model a misconception for the pupils and they helped him to correct his thinking and clarify where he had made a mistake.</p> <p>The teacher came over and explained the different objectives for the year groups and how they are being concurrently taught.</p> <p>The teaching assistant working with the Year 2 group was directing the children well and using modelling and questioning in a very effective way to keep pupils on task. The lower ability group she was working with were very noticeably on task and highly engaged.</p> <p>The Year 3 group were being extended in their learning to solve problems. The teacher used a model calendar and demonstrated different days in each month,</p> <p>Extension provided from additional questions.</p> <p><b>A well-designed lesson that was thoughtfully adapted and in which children were highly motivated and engaged. Pupils made noticeable progress in understanding that different months contain different amounts of days during this lesson- therefore outcomes are good.</b></p>

Class	Notes
<p>Mr Varela Year 4 and 5 Owls class</p>	 <p>Good recap of how to use rulers accurately which was something the teacher had picked up on from last lesson had not been achieved as well as it could be.</p> <p>In today's lesson Year 4 were interpreting information from graphs.</p> <p>Excellent conjecturing from pupils and questioning from the teacher. Very precise questioning which encouraged pupils to give specific answers and checking for greater accuracy.</p>

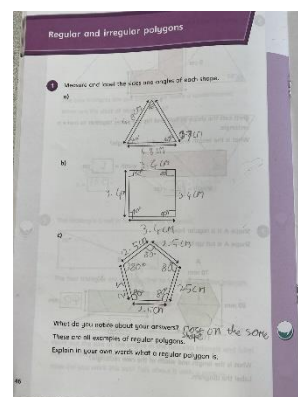


“Wow” moment as pupils realised that they could interpret how many cars were sold in June (which was missing on the graph).

Superb rapport between teacher and pupil.

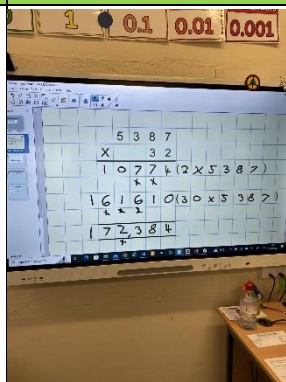
Excellent subject knowledge and direction of pupils to be accurate “look carefully as it isn’t in a definitive integer”. “Be careful as you are pattern seeking- don’t go too quickly in interpreting this- plot every point”.

**The teacher has excellent subject knowledge. The rapport between the teacher and pupils is very strong, enabling a culture where pupils feel able to take risks with their learning and pupils’ understanding of concepts and clarification of misconceptions can be really teased out to achieve high levels of accuracy. This is great practice and will lead to high standards in Year 6. It was a pleasure to see such skilled teaching and pupils being really challenged to make their learning the very best that it can be.**



**Class** **Notes**

Mr Sharp  
Year 6  
Swans Class



Learning Objective displayed “Solve multi step word problems about travel costs”.

- Problem displayed on the whiteboard.
- Routines are extremely well established. Success criteria displayed.
- Ulti-step word problems
  - Real worlds situations
  - Partitioning to multiply by 2 digits.
  - Algebra

The teacher explained that the pupils had been working on a project about travel focusing on distances, rain fall and cost. Lesson started with recapping of core skills, which would be useful for multi-step problems. Pupils recapped long multiplication.

Teacher has an excellent rapport with the class using praise to encourage them “you are excellent at using this method”.

Excellent model already prepared to recap on this model.

Lesson was extremely well paced,

Good demonstration on the interactive whiteboard for written method for long multiplication. Superb explanations from pupils reasoning whilst using this method. A pupil demonstrated well how to solve a problem. Excellent encouragement (which was highly motivational from the teacher).

Demonstration and recap of algebra  $2n+9= 44+9= 53$   
Recap that algebra means using letters to represent numbers.

Really good word problem displayed which pupils discussed. Total cost of a trip when the travel to the airport is also included. Pupils were asked to look at the cost of flights from different airports but then also calculate the cost of petrol to travel to the airport and parking.

**The end of term for Year 6 can sometimes be less productive- but not in Mr Sharp's class! This was a very well-designed and interesting lesson which encouraged the pupils to bring together their skills across different topics in maths. The project and looking at planning a trip was engrossing and difficult questions were being asked. The teacher has extremely high aspirations for the pupils. The methods recapped and context of real-world situations was thoughtfully prepared and children demonstrated impressive mathematical knowledge. An outstanding lesson.**

## Pupil Perception

### 1. When do you have lessons in **maths**?

Year One- In the morning.

Year Two- Maths is in the morning.

Year 3 and 4- Ours is usually in the morning.

Year 6- same time every day. We also have a maths meeting in the afternoon.

All children in agreement they have Maths every day.

### 2. What sort of things do you learn about in **maths**?

Angles, perimeter, time and column method/ subtraction.

Algebra, Fractions.

Time and fractions.

Addition, subtractions and way we can use column subtraction in different ways.

Decimals and minus numbers.

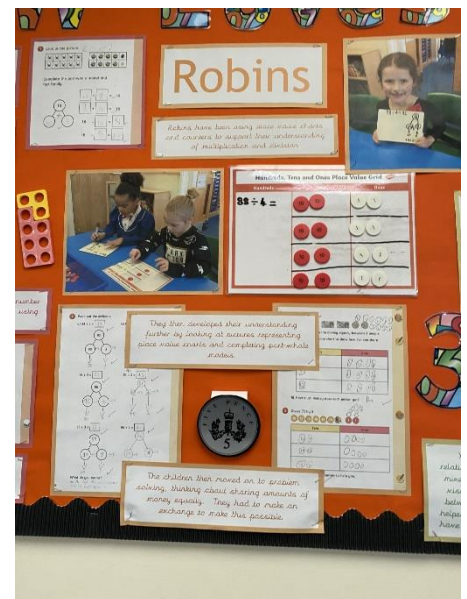
Part wholes.

Bus stop method.

### 3. Why is learning about **maths** important?

Because when you are older there are lots of jobs that involve maths for example if you are a scientist you would need maths to solve a topic.

It is important because if you are a game creator you need it for coding.





Because it can make you smart.

For SATS.

If you work in a shop you need to ring in numbers into a till to work out how much people need to pay.

General life you need to know how to add up and use maths.

**4. How are **maths** lessons different from other lessons? What sort of skills do you use in maths?**

We use adding/ subtracting and times tables and draw on knowledge from lessons we have done in the past.

When you are doing science and English you are reading which is similar because you need to be able to read.

In English you write stuff, but you don't take away. You use maths methods.

I think maths is a subject where you talk quite a bit before you do the work. We discuss maths with our partner.

In English you don't use part whole in maths you do.

**5. What can you remember about **maths** this year?**

Part whole method.

Decimals and fractions.

Decimals and column subtraction.

Bus stop method.

Adding/ subtraction/ multiplication and division.

Time.

Multi-step word problems

In Year 6 we have recapped things from other years.

Number bonds.

**6. What can you remember about **maths** you learned in other classes?**

When I was Mrs Wallis we did adding and subtracting and the column method.

When I was in Year One all of us learnt time.

In Reception Larks we did the number families.

When I was in Year 2 I started learning times tables.

In Year 3 we learnt about the time and we used clocks.

## 7. How difficult is **maths**?

It can be quite difficult if you don't understand what to do but it can be quite simple if you know methods to solve the questions.

I think ever since we started using White Rose maths booklets it has got harder. You are all doing the same work and how hard it is depends on how far you get. I like the booklets far more than chilli challenges.

Most of it is easy we get harder challenges and next steps.

Maths is sometimes very hard and sometimes very easy. Mrs Masson taught us a lot of stuff in Reception.

It depends on what it is- some learning- if it is new, it is harder.

I would say that maths is hard when you don't read the question properly.

It kind of in the middle because sometimes we have fractions on a number line which is hard for everyone but by the end it was easy.

I find when you are having an old subject you can find it harder because you are trying to recall what you were already taught.

## 8. What you like best about **maths**?

My favourite thing every maths lesson is times tables.

Adding and subtraction because I know those well.

I like algebra because it is hard, and I like being algebra.

Times tables because of times table ninjas.

My favourite thing is number bonds because you can challenge yourself with hundreds.

I like when we do assessments in Year One- they get harder and harder.

I love the lesson because it's so easy.

Multiplying and dividing because dividing is like taking away.

I like it when maths looks complicated, but you use strategies you know to help you.

You get to talk about the questions.

## 9. What would make lessons in **maths** better?

If you could choose the topic you could do.

It getting harder.


It would be better if Tiny Tortoise got a question right.



## Website

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Mathematics



**Great Whelnetham School and White Rose Maths**

At Great Whelnetham Primary School, we believe that Maths should be fun, clear and challenging. We aim for every child to move on from our school with a love of Maths and a deep grounding in the basics needed to progress and succeed.

The way we teach has two clear parts:

- [The White Rose Scheme of Work](#)
- [Our School Calculation Policy](#)

greatwhelnetham.suffolk.sch.uk

- The website is thoughtfully designed with key information clearly accessible. Documents are up to date and include a statement of intent, calculation policy and progression document.
- There is lots of information on the website explaining why the scheme of work being used has been chosen; “What is White Rose”, “Why White Rose”, “The impact White Rose will have on our children”.
- There are many resources linked to White Rose signposted for parents to use at home.

22:54

<https://whiterosemaths.com/maths-with-michael>

For teaching videos to compliment your child's learning, go to:

<https://whiterosemaths/homelearn>

Statement of Intent

Progression

Calculation Policy

01284 396203

Stanningfield Road, Bury St Edmunds, Suffolk, IP30 0UA

office@greatwhelnetham.co.uk

greatwhelnetham.suffolk.sch.uk

## Summary

### What the school does well

- Maths vocabulary which each year group should know has been identified and this is clearly having a very positive impact. Pupils use and refer to this vocabulary in conversation and use mathematical terms fluently (Year One pupils talk about number bonds, place value and part whole models for example as demonstrated in the pupil perceptions conducted in this Deep Dive).
- All lessons observed today were highly successful, at least Good and I would suggest even better.
- Pupils are making rapid progress because of the well-structured, progressive curriculum.
- Teacher’s subject knowledge is extremely strong across the school.
- The school has clear systems in place to enable children to recall and recap previous learning.
- The children have communicated that they really enjoy White Rose, they feel the workbooks have improved lessons and they like being challenged by “hard work”.
- Pupils are aspirational for their own learning.
- The new maths meetings are well received and the children feel that these are having a positive impact on helping them to remember previous learning.
- The Maths subject leader is enthusiastic about his subject and effectively leads this area. He confidently talked about the documentation in place and the curriculum design for maths.
- The maths subject lead has identified accurate priorities for how the school could develop further. He knows the subject and the school extremely well and is dedicated to making maths provision even better. This is really impressive- and the school should now be aiming for an Outstanding Ofsted grade in maths.
- Excellent procedures and practices in marking and assessment are very embedded throughout the school. The impact of these are measured carefully and the intervention which is then thoughtfully planned is having a significant, positive impact.
- This is a school where no time is wasted and it feels very much that there is a shared, highly professional, highly focused vision. Staff share the high expectations which are being driven by the leadership group and are well supported by the Governing Body.

## What the school could develop further

- There are clear aspirations and explicit plans for how to develop maths even further.
- The subject lead is very clear about his priorities- through the school's work with Angles Maths Hub key instant recall facts KIRFS are being introduced to help pupils with recall and fluency.
- The school wants to work further with parents and is introducing maths mornings. This will help parents know how to support pupils further at home and is a very worthwhile aspiration.
- The maths lead is also introducing White Rose homework resources- which will increase the quality of homework resources linked to weekly learning.
- These are all well identified priorities and will ensure the school continues to make even further progress.