How we teach maths at WBPA

Maths Planning Expectations

1) Our planning is dictated by the Power Maths sequence of learning overviews, which can be found here: https://www.activelearnprimary.co.uk/app/plans/powermaths

2) Before the start of each half term, we then map out our sequence into our curriculum map to ensure that all objectives are being taught

3) The Power Maths planning can be supported by the NCTEM Ready to Progress documents (https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/) and NCTEM Spine documents (https://www.ncetm.org.uk/teaching-for-mastery/mastery-materials/primary-mastery-professional-development/)

4) Any planning is to be done on the William Byrd maths structure PowerPoint for consistency across the school (located in the Maths Planning folder on the shared drive). All calculations are to be checked and supported by the Power Maths calculation policy (https://www.activelearnprimary.co.uk/app/support/powermaths)

Main Maths Lesson (4x week)

Teaching

- 5 Minutes: Start with a 3 minute arithmetic (3 in 3)
- 3 Minutes: Vocabulary activity related to the lesson objective
- 15 Minutes:

I DO: Explicit model where the children **do not** participate in the question. Talk out loud, question yourself and use the lesson vocabulary while modelling.
WE DO: Complete another question with help from the children. Use talk partners and "Pose, Pause, Pounce, Bounce".
YOU DO: Have the children do the activity independently on their white boards. Use this opportunity for AFL – move the children who are secure on to challenge question, or straight to fluency. Keep back the children who are struggling for an additional model.

- 7-9 Minutes: Independent fluency – give your children fluency questions. Have different starting points for children who are more secure. Aim for 5 fluency questions to be completed.
- 5 Minutes: Problem-solving model. Explicitly model a problem solving or reasoning question using the Rise Model.

READ AND UNDERLINE KEY FACTS
ILLUSTRATE
SOLVE
EXPLAIN AND EVALUATE

- 15 Minutes: Children independently complete reasoning and problem-solving questions using the RISE method where appropriate.
- 8 Minutes: Plenary – a slide with a challenging question related to the lesson objective that summarises and stretches the pupils.

Book expectations

KS1	KS2

- Work done in main maths book - Title explicitly states the skill/or objective in the lesson and can be printed and glued in for them - Work sheets can be stuck in books However children should be encouraged to set out their working in their Maths book - Y2 to transition from KS1 to KS2 book layout throughout the course of the year	- Work done in main maths book - Title explicitly states the skill/or objective in the lesson - Date and title are written using DUMTUMS - A ruler is used for ALL LINES - Students write one digit per box - Fluency questions are printed out (one between two students) are children write and answer the questions in their books - Problem solving questions are printed and glued in the books – working out is done beside the question - When a worksheet does need to be stuck in books, it should be formatted and sized so children show working out and answer in their book
Marking	
- Teachers mark in green pen – a tick for a correct answer and a dot for an incorrect answer - Pupils mark in purple pen - tick for correct, dot for incorrect - Lesson title highlighted in green for secure, and yellow for not secure - Teachers can use distant feedback (showing an example, asking additional questions in the books, setting a challenge) in green pen, and students can respond in purple pen	
Resources Available	
- Power Maths - https://www.activelearnprimary.co.uk/login?c=0 (Each year group also has a copy of the teacher guides, textbooks and workbooks) - White Rose – PSOL - https://whiterosemaths.com/resources/primary-resources/primary-sols/ - White Rose – Premium Resources - https://resources.whiterosemaths.com/ - PiXL - https://www.pixl.org.uk/ - Target Maths (Each year group has a set of books to use) - NCTEM Spine Materials - https://www.ncetm.org.uk/teaching-for-mastery/mastery-materials/primary-mastery-professional-development/	

Arithmetic Lesson (1x per week)
Teaching
KS2
– 5 Minutes: Times tables speed test – 15 Minutes: Pre-teaching of 1-2 challenging concepts from the arithmetic test Children practice using whiteboards and manipulatives. – 15 Minutes: Children take weekly PiXL arithmetic test, teacher walks around and notes down common misconceptions – 15 Minutes: Swiftly mark the test and then unpick 2-3 misconceptions from the test – 10 Minutes: Give children a few practice questions to try in their arithmetic books
Book expectations
- Work done in arithmetic book

- Presentation expectations are the same as in the maths book (DUMTUMS, one digit per box, use a ruler) - Weekly test questions stuck in the book to track progress
Marking
- Marking expectations the same as in the maths book - Children self-mark test in purple pen, and write their total score at the top of the test paper - Teachers highlight common misconceptions on the test in yellow highlighter - Log the weekly scores in the arithmetic tracking grid in the shared drive
Resources Available
- PiXL Weekly Tests - https://www.pixl.org.uk/

Maths Meet (2x per week)	
Teaching	
KS1	KS2
- 5 Minutes: Explicit times table teaching activity (Y2) Practise working with 2,5,10s and doubles and halves to 10+10 (Y1) - 15 Minutes: **I DO:** Explicitly model ONE skill that you want the children to learn. Model the strategy that you would like them to use. **WE DO:** Have the children join you in doing a model. Encourage them to use talk partners and PPBP. **YOU DO:** Give the children independent tasks to do in their maths books to practice the skill. Have differentiated questions for LA, MA and HA learners. Have a challenge ready for fast finishers.	- 5 Minutes: Times table speed test OR explicit times table teaching/activity - 15 Minutes: **I DO:** Explicitly model ONE skill that you want the children to learn. Model the strategy that you would like them to use. **WE DO:** Have the children join you in doing a model. Encourage them to use talk partners and PPBP. **YOU DO:** Give the children independent tasks to do in their maths books to practice the skill. Have differentiated questions for LA, MA and HA learners. Have a challenge ready for fast finishers.
Book expectations	
- Book layout expectations are the same in the arithmetic and maths lessons - Work to be done in the main maths books - Title should be “Maths Meets – NCTEM objective/lesson objective”	
Marking	
- Marking expectations are the same as in main maths and arithmetic lessons - Feedback should predominantly happen in the session - If there are still misconceptions at the end of the lesson, address them in the next maths meet	
Resources Available	
NCTEM Ready To Progress - https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/	

Times Tables

Teaching and practice

- According to the national curriculum, the following is what children should know at each Year Group:

Expectations for times tables for each year group:	
Year 1	Count in multiples of 2, 5 and 10. Recall and use all doubles to 10 and corresponding halves.
Year 2	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
Year 3	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Year 4	Recall and use multiplication and division facts for multiplication tables up to 12x12.
Year 5	Revision of all times tables and division facts up to 12x12.
Year 6	Revision of all times tables and division facts up to 12x12.

- 2 times a week, we must explicitly teach times tables (using NCTEM or PiXL resources)
- The practice tool we use at WBPA is "Times Tables Rock Stars". Children should be encouraged to use this tool daily at home, and it should be set as part of homework each week.

Assessment

- 3 times a week, children will complete a times table speed test
- Children should pass each times table test 3x before being marked as secure
- Once children have mastered their times tables, they can move on to complete times table challenges (mixed fluency)

Logging

- Times tables tests should be logged in the appropriate QLA spreadsheet on the shared drive

Resources Available

- NCTEM Times Table Sequences - https://www.ncetm.org.uk/teaching-for-mastery/mastery-materials/primary-mastery-professional-development/multiplication-and-division/
- PiXL Therapies (Primary Wise > Resources > Whole School > Times Tables DTT > Select Year Group > Therapies) https://www.pixl.org.uk/
- Times Tables Rock Stars - https://ttrockstars.com/
- Tests, speed tests and other times table activities are available in the maths planning folder on the Shared Drive