

# **Maths and Calculations Policy**

Date: June 2024

Review date: June 2025

Approved by the Advisory Board: June 2024

Signed

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Registered address: All Saints School (Lessingham) Limited. Company no: 10323174 Rookery Farm, Reynolds Lane, Potter Heigham, Great Yarmouth NR29 5LY

### **Version Control**

Version	Date of review/change(s)	Page and paragraphs affected	Summary of update
New policy	July 2023		
V2	June 2024	P3 Implementation	[students are able to take] Functional Skills (Entry Level, Level 1 or Level 2) - Replaced with the Edexcel Level 1/Level2 GCSE (9 to 1) in mathematics and/or the Edexcel Entry Level Certificate in mathematics (level 1, 2 or 3).
		P3 Impact	[RAG their] 'effort and understanding' replaced with 'work'

#### Intent

Our vision for maths at All Saints School is for every students' maths learning to support their unique journey in education and develop their maths skills for life. Our aim is for students to have developed secure numeracy skills to allow them to access the next stage of education that they would like to follow as well as give them the mathematical and problem solving skills that will support them in adult life.

Many students starting at All Saints have gaps in their maths education and also lower reading abilities which makes accessing the reading of maths material difficult.

The teaching of maths at All Saints School is student focused to ensure students feel comfortable, confident and secure in their maths class while at the same time ensuring students follow a learning path that ensures they achieve the best possible outcome and results in their maths to help them take their next steps in both education and life.

#### Implementation

To achieve this in KS2 and KS3 maths is taught in "stages" (based on students' current mathematical understanding) rather than in year groups. This allows teaching to be focused at a level appropriate to students and allows teachers to support any gaps in understanding, misconceptions and allows for consolidation of topics.

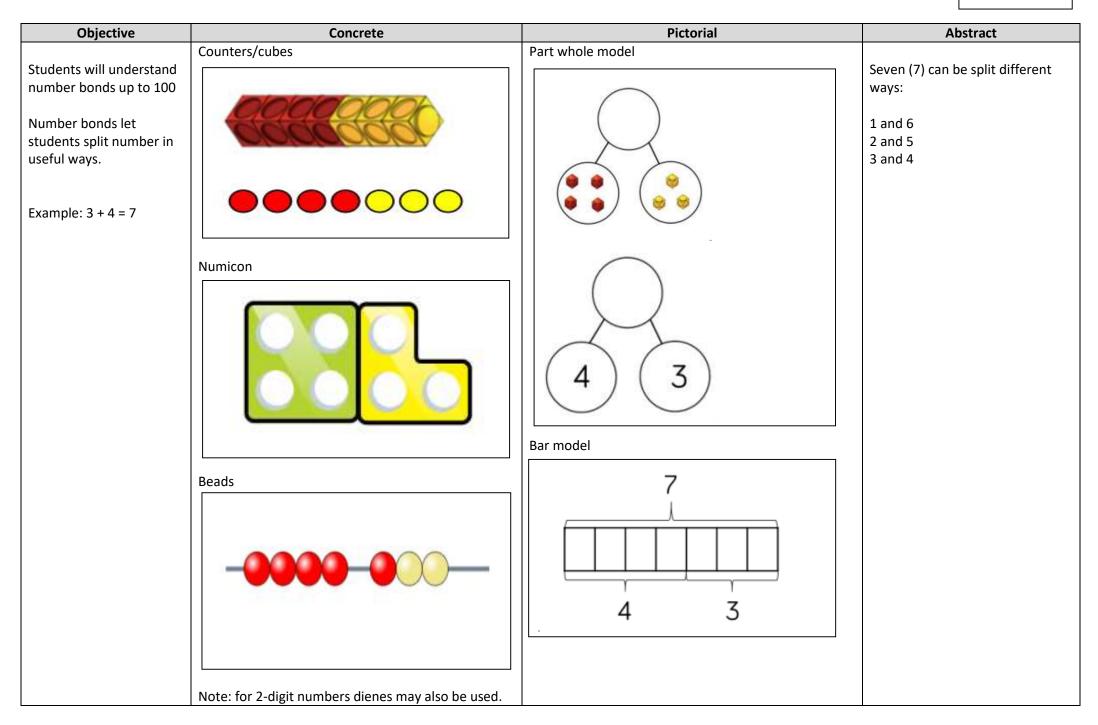
Students build on their knowledge as they move through the stages (there are 6 stages in KS2/KS3). Students begin at the school at the stage which is appropriate for them and progress through the stages based on the development of their own mathematical knowledge. This method of teaching ensures students' progress at the rate that is right for them and each student reaches their full potential.

We see Key Stage 4 as a natural continuation from KS3. Students continue to learn maths based on the stage they were at the end of KS3. A further 2 stages cover GCSE maths topics for the Foundation and Higher papers. This allows students to follow the path that is right for them so that students are entered into the most suitable maths qualification for them. Students are able to take the Edexcel Level 1/Level2 GCSE (9 to 1) in mathematics and/or the Edexcel Entry Level Certificate in mathematics (level 1, 2 or 3).

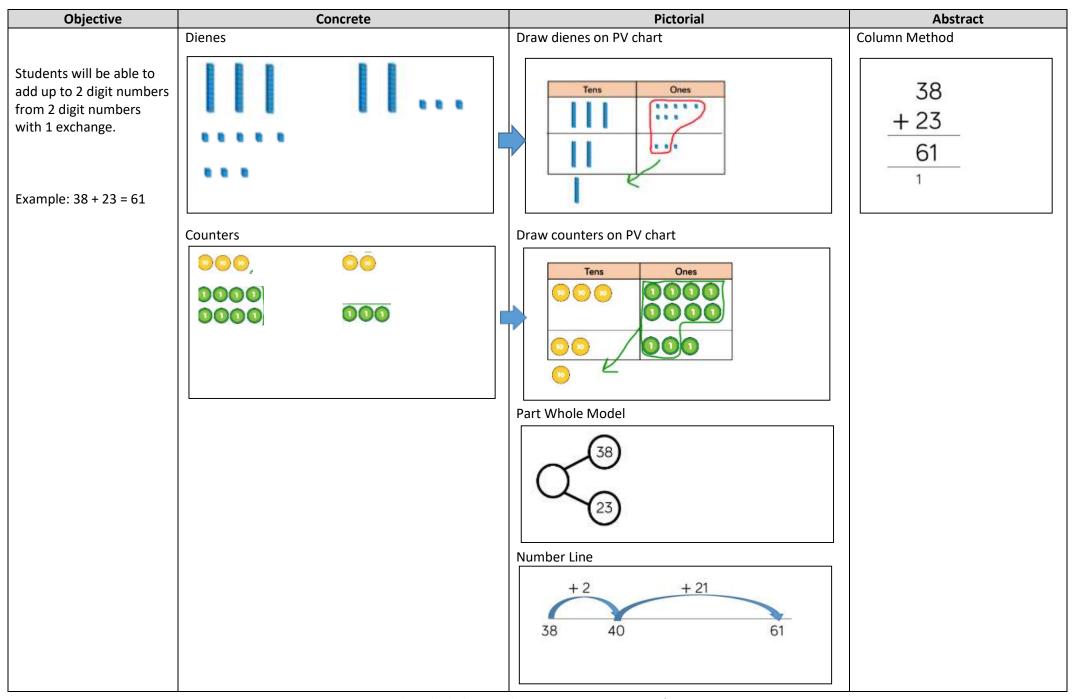
For teaching KS2 and some KS3 maths we use the White Rose Maths resources which follow a mastery approach using concrete, pictorial and abstract techniques to develop students understanding of topics. Appendix one sets out our calculation policy giving guidance on the techniques used to teach students.

#### Impact:

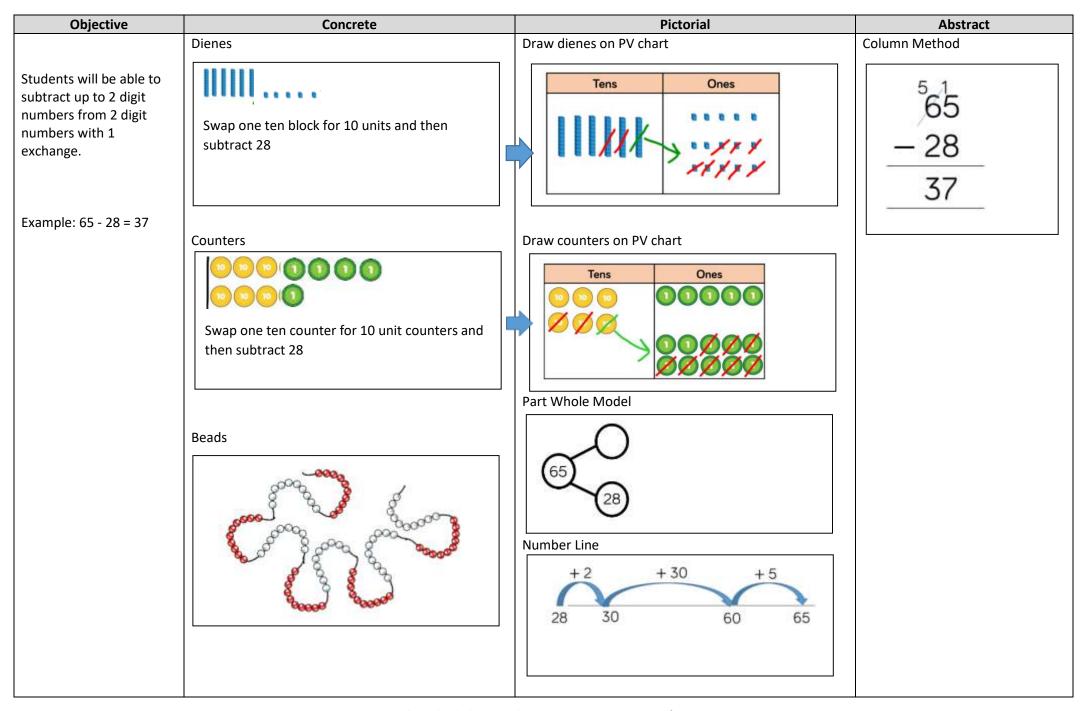
Students complete lesson reflections and RAG their work at the end of each lesson which allows them to reflect on what they have achieved in the lesson. Teachers also RAG the lesson objectives. Benchmark assessments are completed by students at the beginning and the end of core numeracy topics. These assessments evidence that progress that students are making. A year-end assessment will also track students' progress over the year and assess their readiness to move to the next stage.



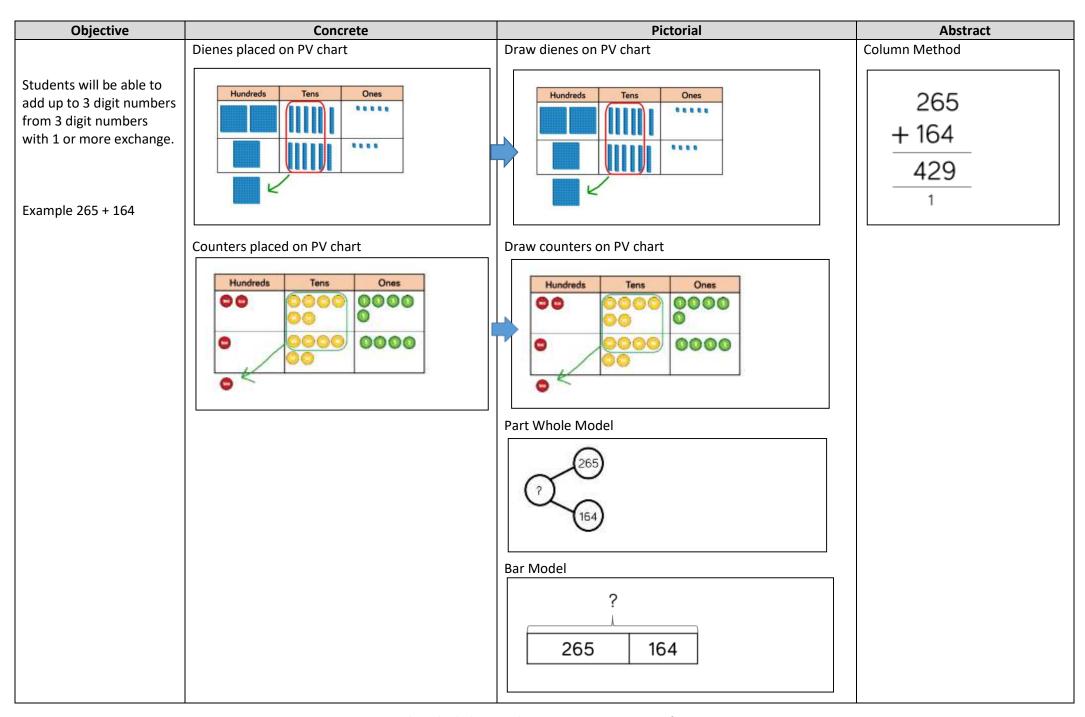
### STAGE A – Addition and Subtraction



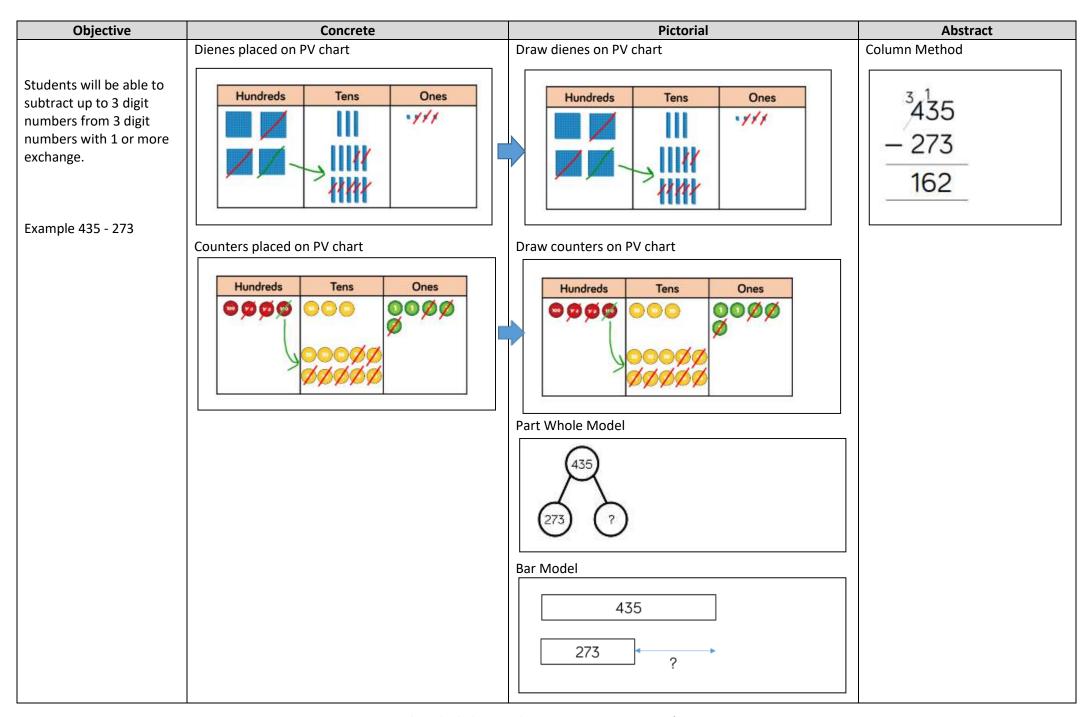
### STAGE A - Addition and Subtraction



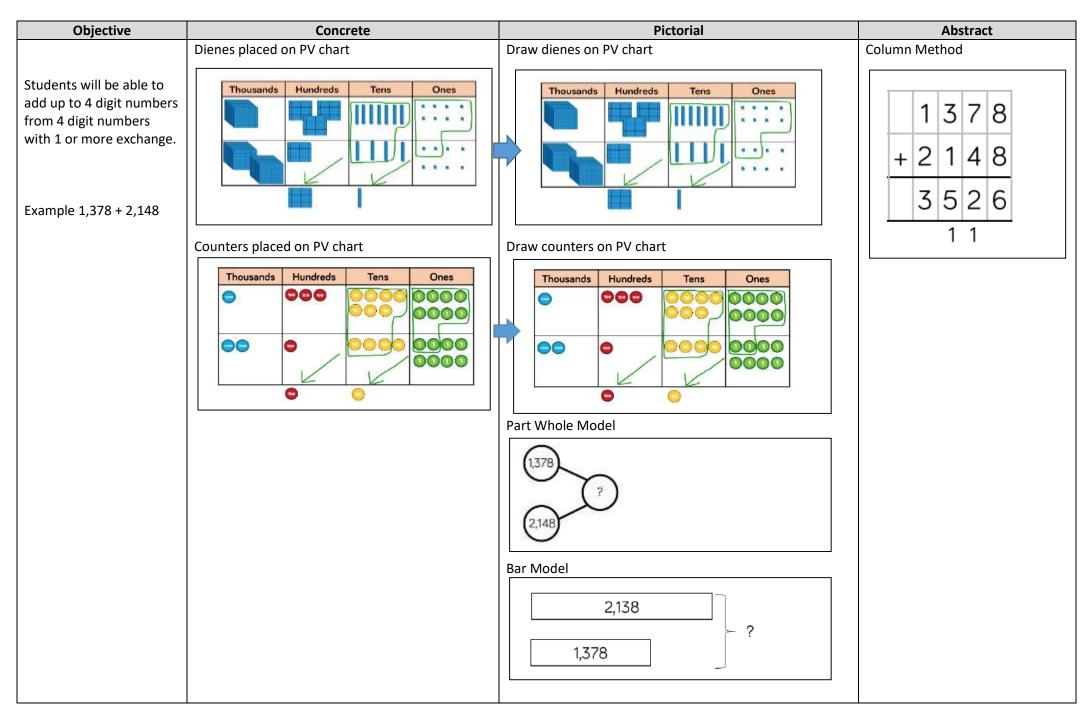
### STAGE B - Addition and Subtraction



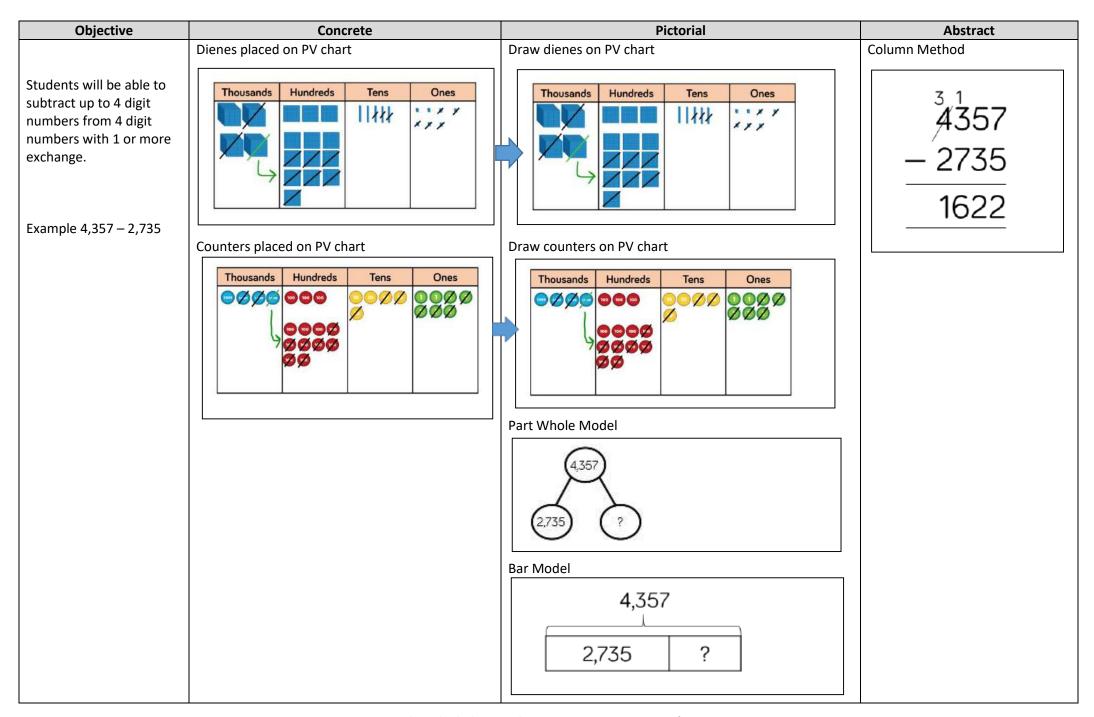
### STAGE B - Addition and Subtraction



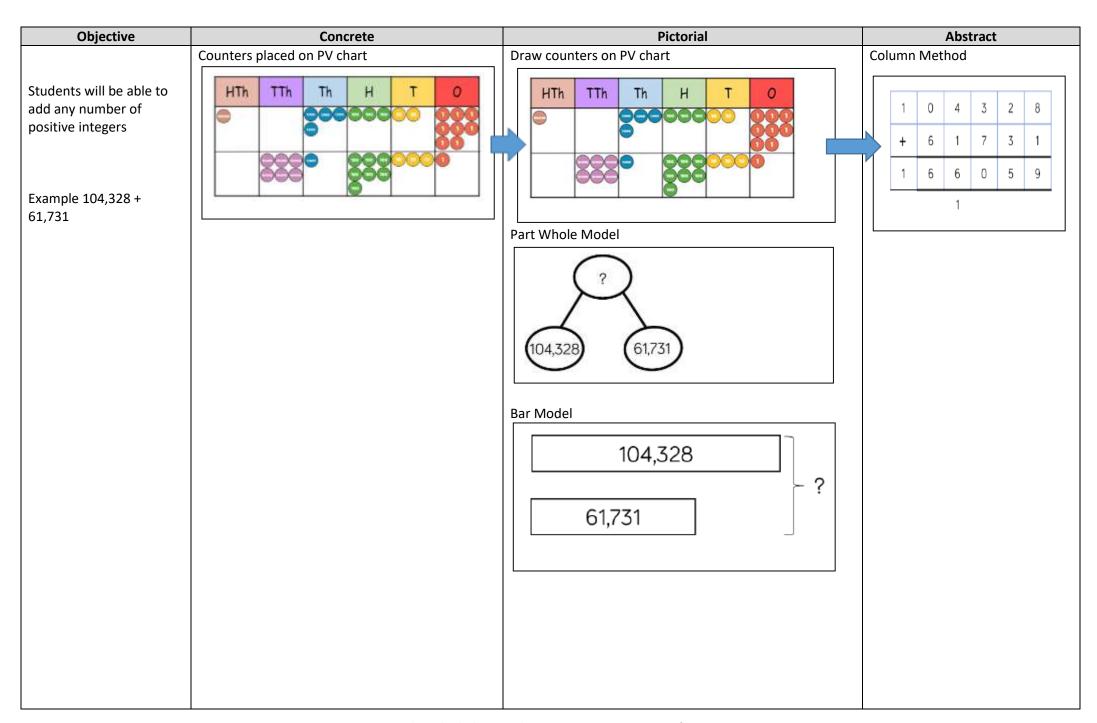
### Stage C and D – Addition and Subtraction



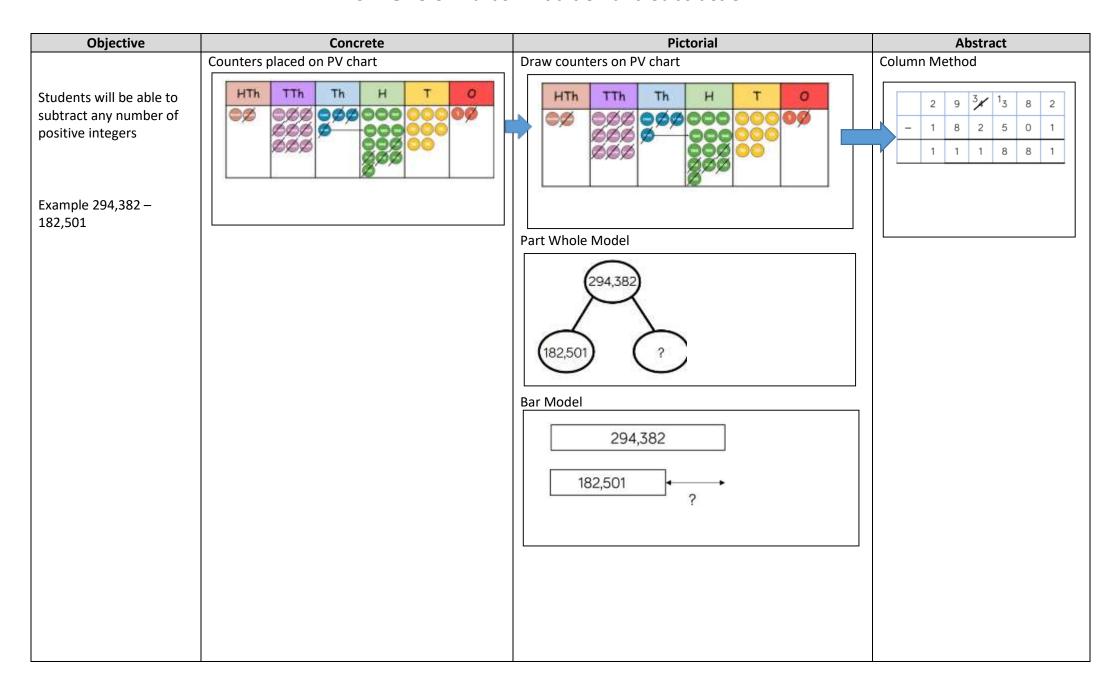
### **Stage C and D – Addition and Subtraction**



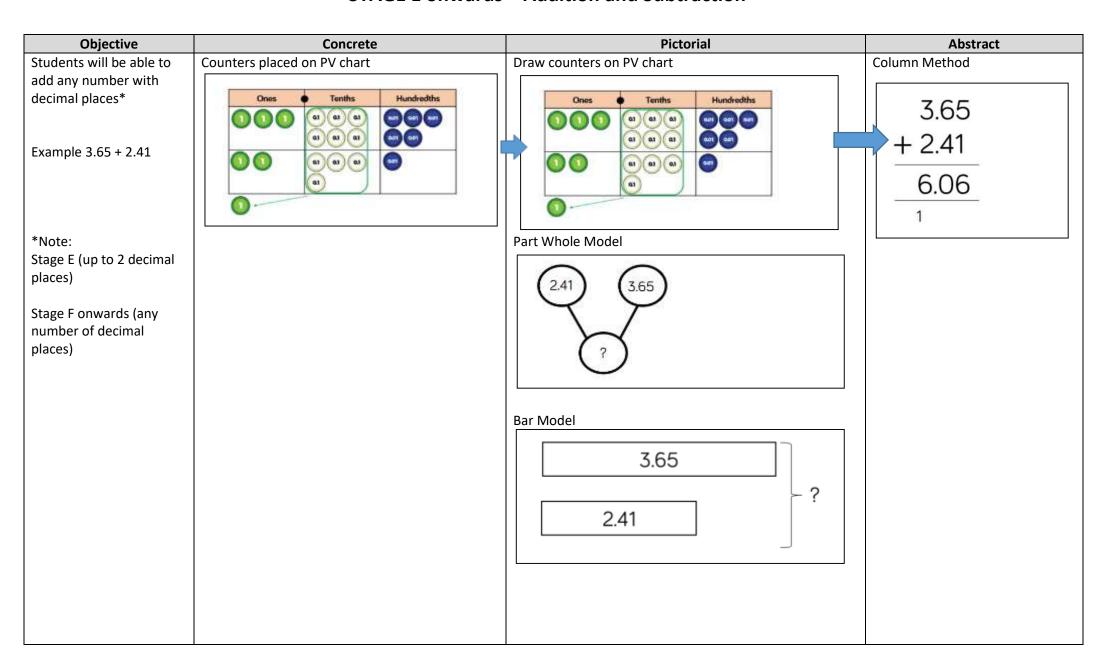
## **Stage E onwards – Addition and Subtraction**



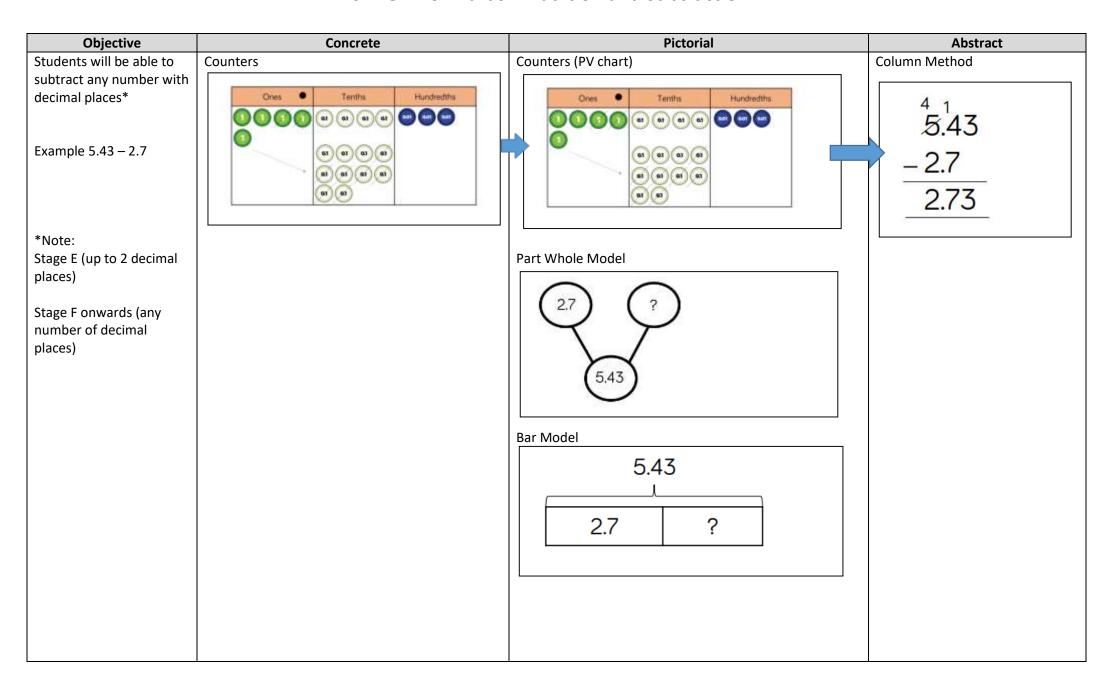
### STAGE 5 onwards – Addition and Subtraction



### STAGE E onwards – Addition and Subtraction

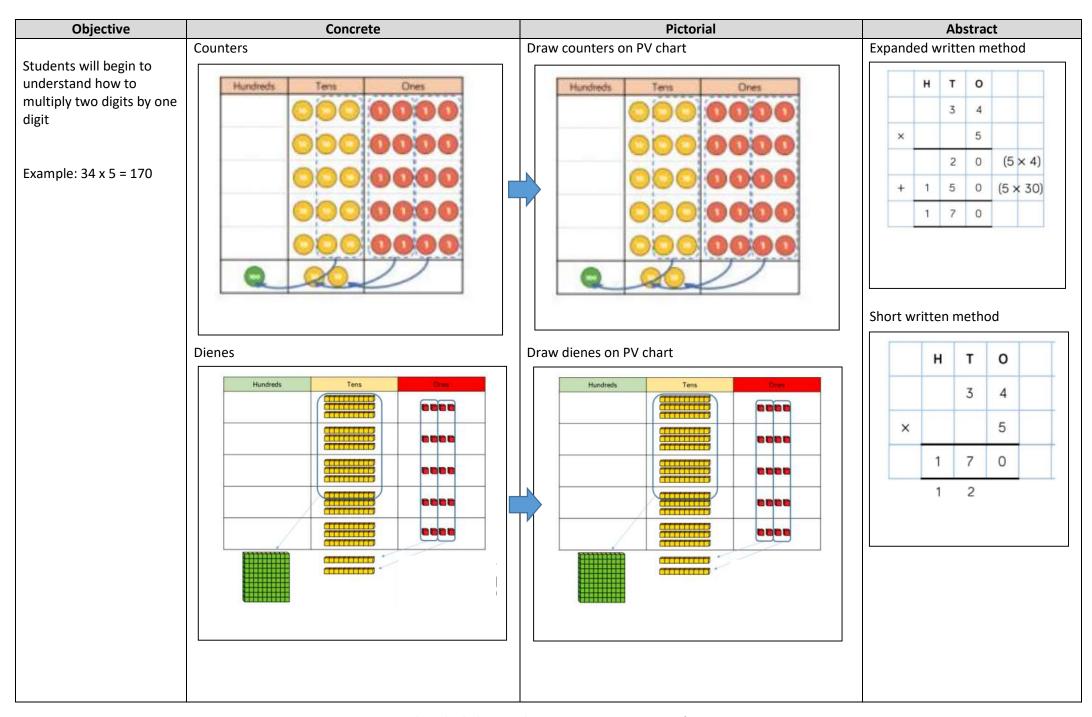


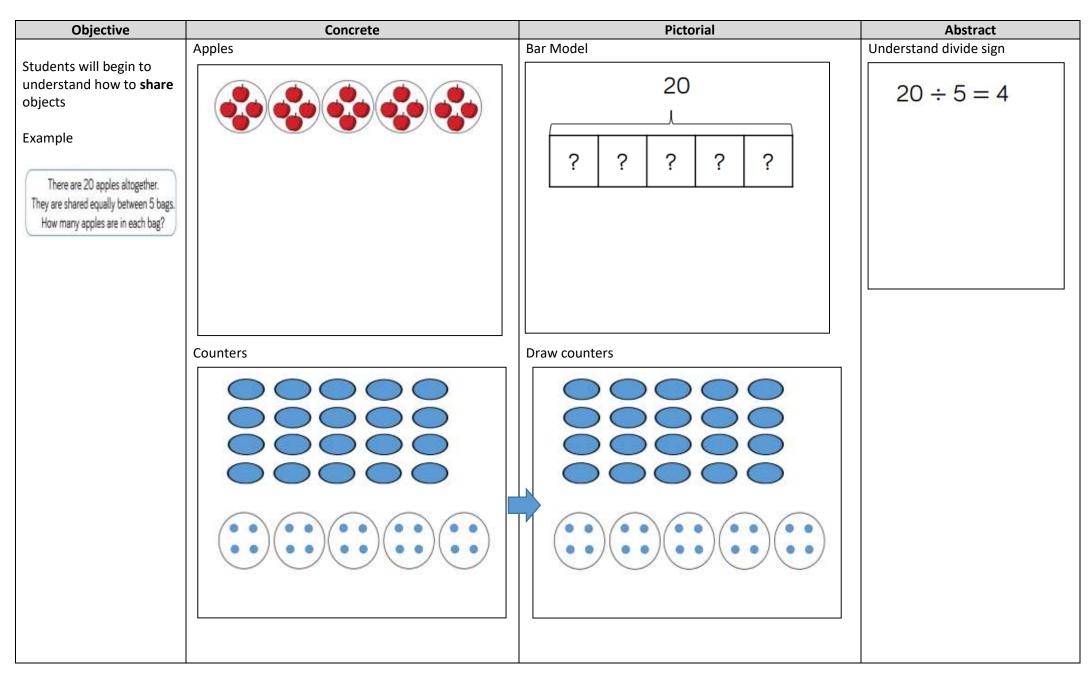
### STAGE E onwards – Addition and Subtraction

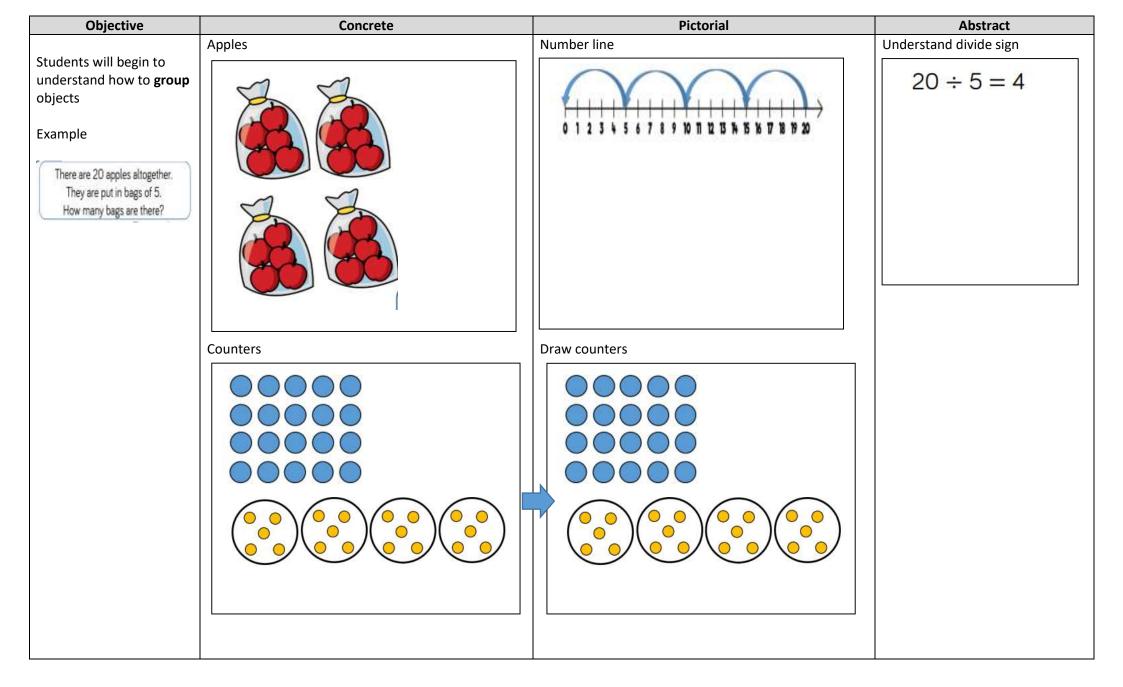


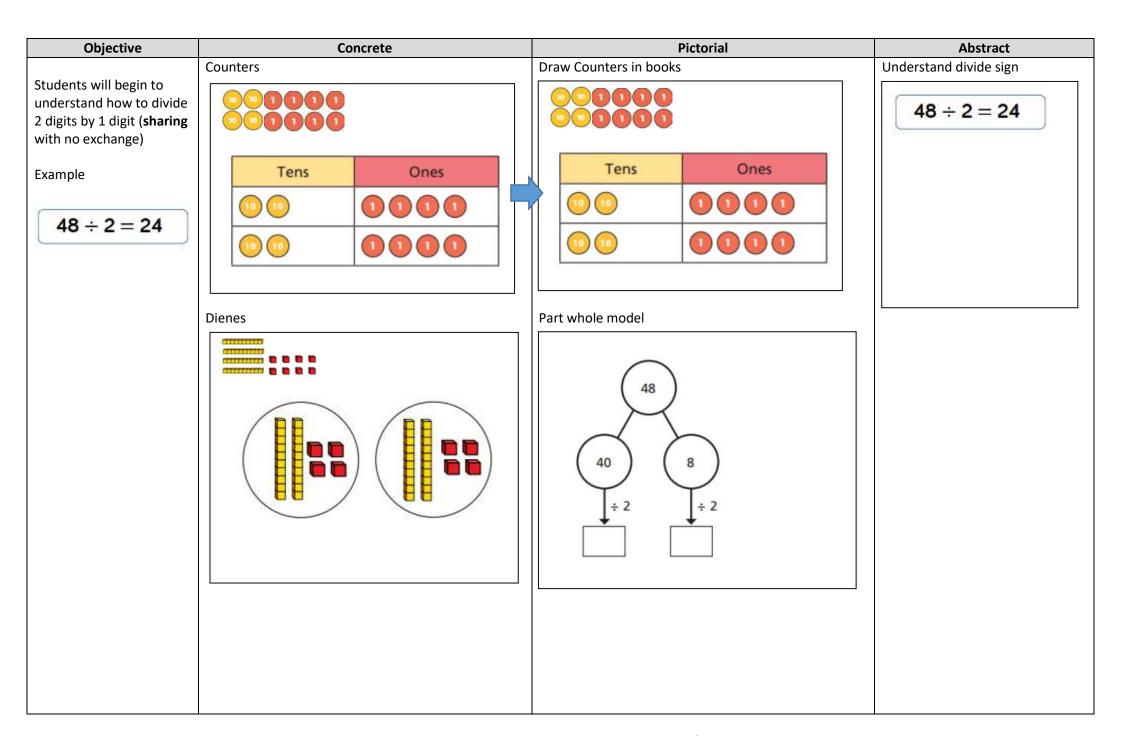
## **STAGE A – Multiplication and Division**

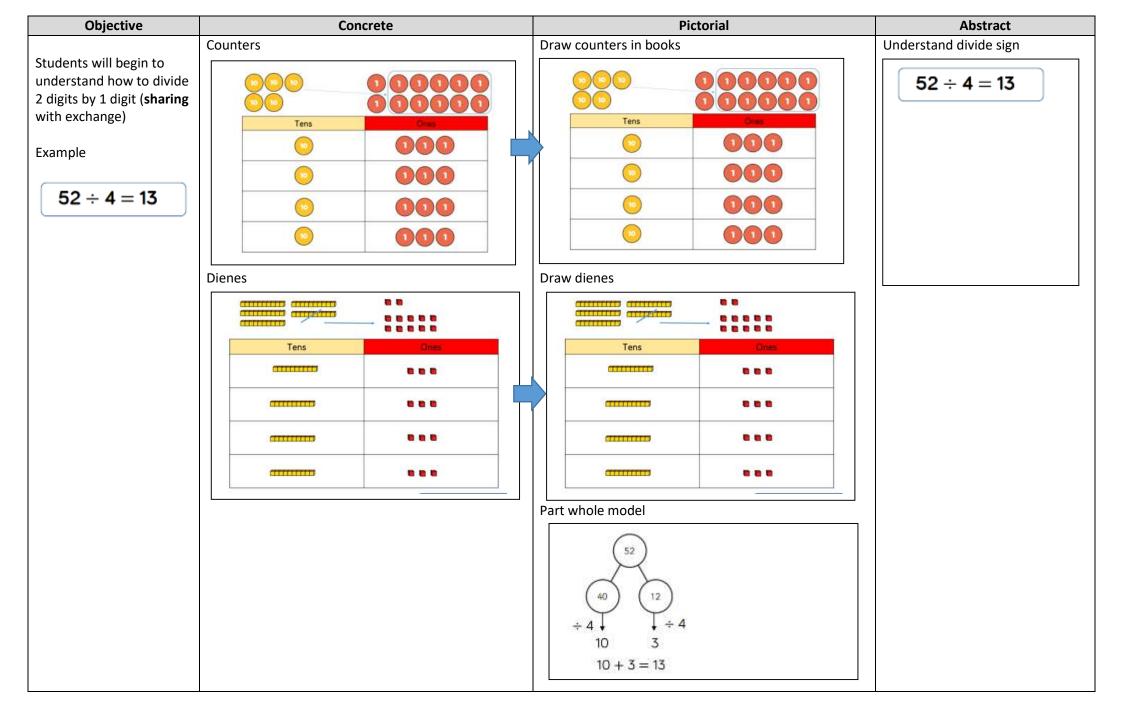
Appendix one



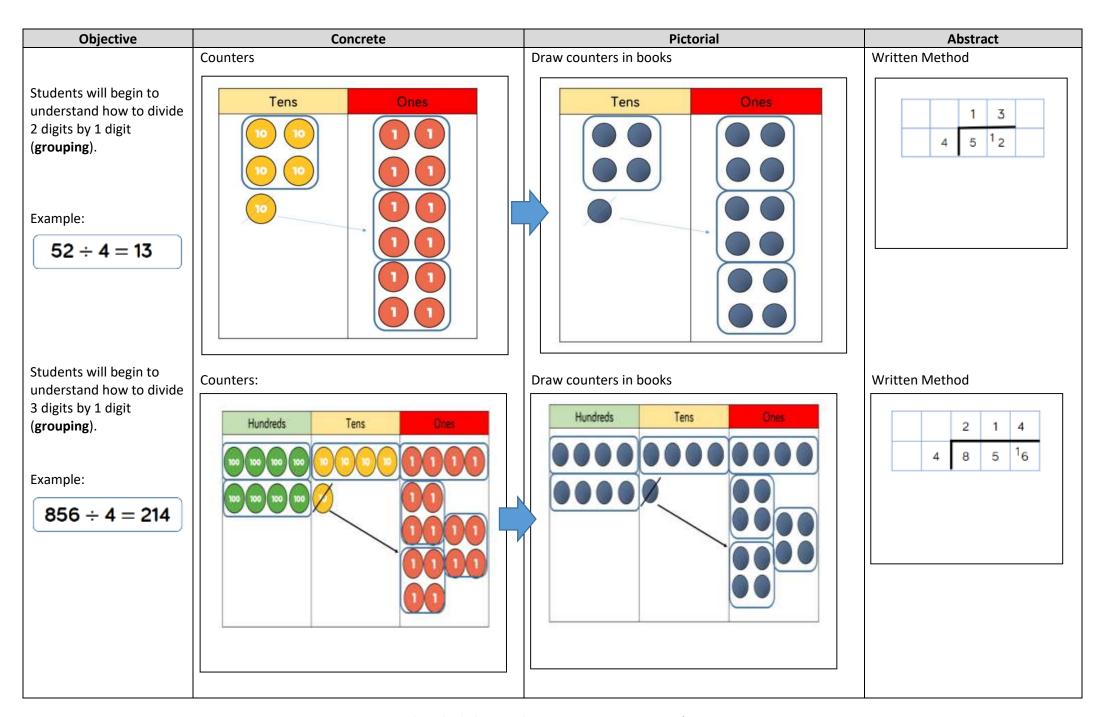




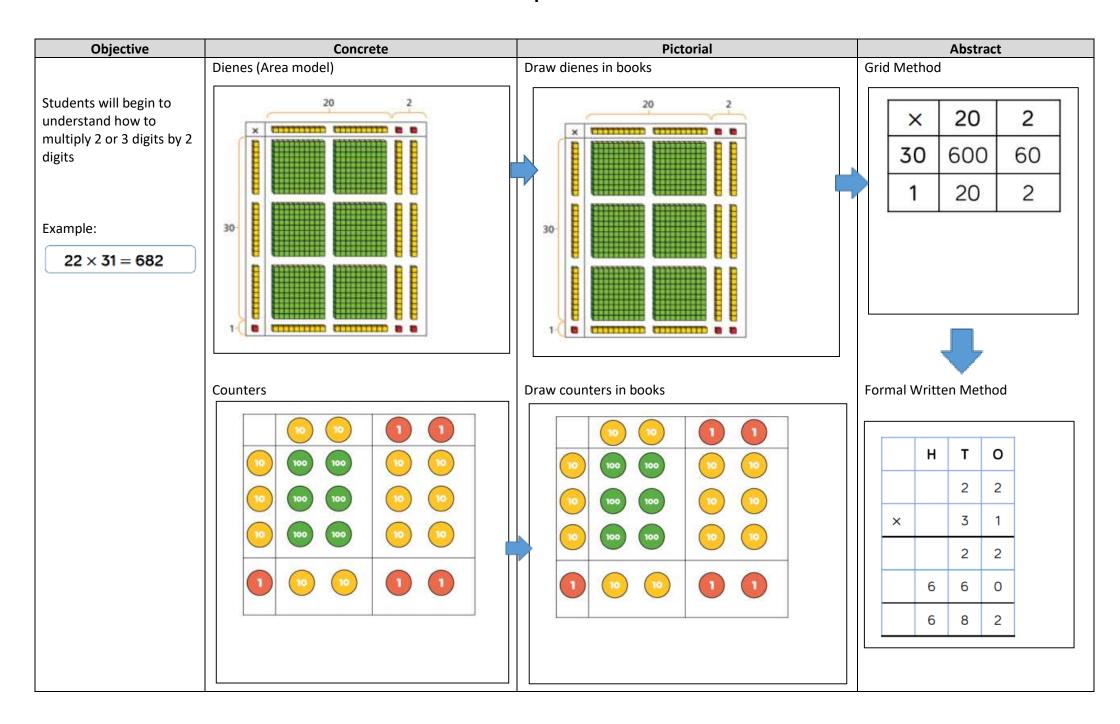




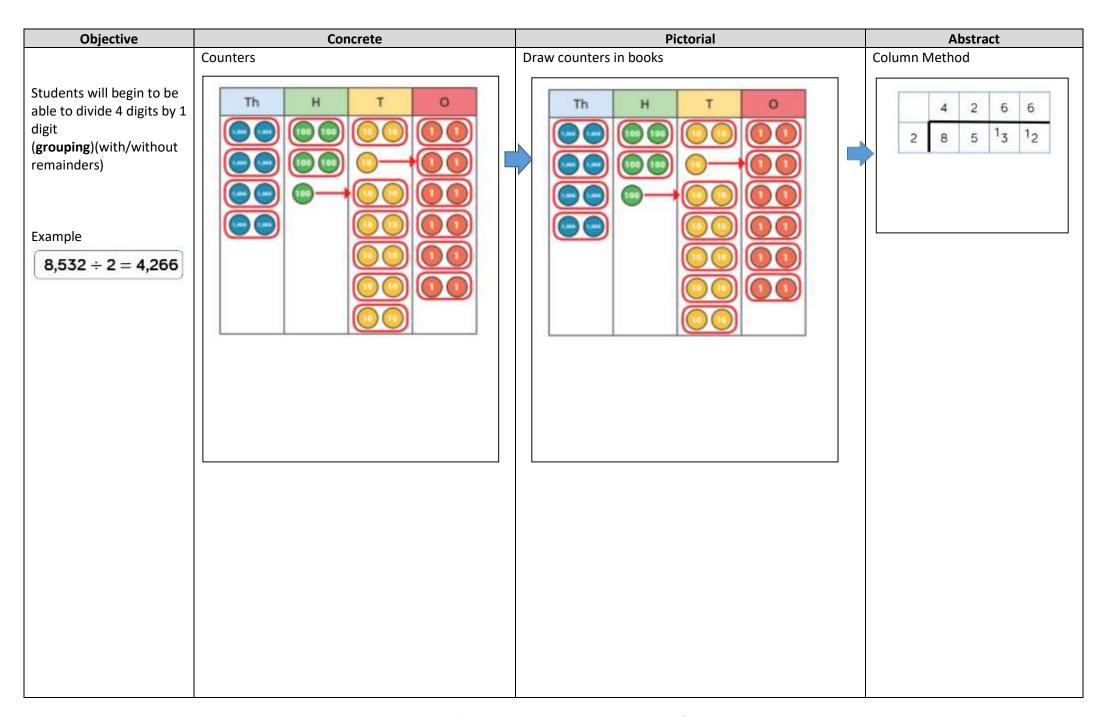
# **STAGE B – Multiplication and Division**



## **STAGE C – Multiplication and Division**



## **STAGE C – Multiplication and Division**



# **Stage D onwards – Multiplication and Division**

Objective	Concrete	Pictorial	Abstract									
Students will be able to divide any number of digits by 2 digits using	Not used	Not used	Written Method									
short division (with/without remainders)							0		3	6		
432 ÷ 12 = 36					1	2	4		4 3	7	2	
Example 7,335 ÷ 15 = 489			It may	15 help stude	nts to v	7	4 7 3	ltiples	8 13 3 of 15 to		9 3 <sub>5</sub>	n the
			15	30	45	60	75	90	105	120	135	150

# Stage D onwards – Multiplication and Division

Objective	Concrete	Pictorial	Abstract				
Students will be able to divide any number of digits by 2 digits using long division (with/without remainders).  Example  432 ÷ 12 = 36	Not used	Not used	Written Method $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
7,335 ÷ 15 = 489			$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				