Multiplication and Division:
The Multiplying Machine

Aim:	Success Criteria:	Resources:
Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. I can calculate mathematical statements for the 2, 5 and 10 times tables.	I can multiply by 2, 5 and 10. I can write a repeated addition sentence. I can use the × and = symbols.	Lesson Pack
	Key/New Words: Multiply, lots of, multiplication, multiplication facts, equal groups, multiple, repeated addition, times, array.	**Preparation:** Differentiated Matilda's Multiplication Activity Sheet - 1 per child

Prior Learning: It will be helpful if children are familiar with arrays and have some experience of multiplication.

Learning Sequence

	**Bingo!** Children write down six numbers on their whiteboard that are multiples of two, five or ten. The teacher calls out a multiplication sentence and if a child has the answer to that sentence, they cross it off. The game is followed by some reasoning activities.	
	**Matilda the Multiplying Machine:** This slide in the Lesson Presentation sets the theme of the lesson. Matilda can answer any multiplication question. The second slide asks a question for her to answer.	
	**Matilda's Puzzle:** The children guess what number sentence Matilda is thinking of from the stimulus pictures on the Lesson Presentation. The first sentence is repeated addition. The subsequent slide goes on to show the children how to write a multiplication sentence and they then discuss similarities and differences between the two.	
	**What Am I Thinking Of?** These slides in the Lesson Presentation use arrays, pictures and sentences to generate number sentences. Can the children work in pairs to write a repeated addition and a multiplication sentence for each of them? They may need to draw a picture to solve the final word puzzle.	
	**Matilda's Multiplication:** Children complete the differentiated Matilda's Multiplication Activity Sheets, filling in number sentences to match Matilda's arrays or picture clues.  Children complete the numbers sentences to match arrays and pictures.  Children write their own number sentences to match arrays, pictures and word puzzles.  Children write multiplication sentences to match arrays and picture clues, they write a puzzle for each one and solve an inverse puzzle.	
	**Final Puzzle:** This time, the children see Matilda's answer on the Lesson Presentation and they have to work out what multiplication sentences might generate that answer. They then choose another number that might give several possibilities for multiplication sentences. Can the children explain why some numbers will generate more possibilities than others?	

Masterit

Writeit: Use one of the following resources for children to generate number sentences from the arrays, pictures or puzzles.

Matildait: Can the children make a model of Matilda and use it as a fun way of practising number sentences to put in? Their partner can then write the answer.

Exploreit: The class could explore which numbers coming out of Matilda can generate the most multiplication sentences.

Throwit: Throw bean bags into hoops and award 2, 5 or 10 points for each of the bags that land inside. Can the children work out their total score? Can they write a multiplication or repeated addition sentence for their score?