## Multiplication and Division: Pieces of Eight

Aim: To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. I can multiply and divide by 8.	Success Criteria: I can count in 8s I can recognise multiples of 8 up to 12 x 8. I can write multiplication sentences for arrays up to 12 x 8. I can use arrays to find division facts. I can use my knowledge of the 8x table to find division facts. I can investigate the multiples of 8, finding	Resources: Lesson Pack Small manipulatives Stopwatch
	patterns in the digits. <b>Key/New Words:</b> Array, multiples, digits.	Preparation: Multiplication and Division 8x Loop Cards - cut into individual cards Differentiated Ahoy Me Hearties! Activity Sheets - as required Multiplication Squares - as required

**Prior Learning:** 

It will be helpful if children have started to learn their 8x table before this lesson, and have previous experience of grouping objects using arrays (covered in Lesson 1: The 3s and Lesson 2: The 4s).

## Learning Sequence

<b>8x Loop Cards:</b> Use the Multiplication and Division 8x Loop Cards. There are 24 cards in the set. If your class is larger than 24, you might consider having some children working with a partner to support them. If you have less than 24 in your class then some children will need to have extra cards. All of the cards must be given out for the activity to work successfully. The child with '0 x 8=' must start and read out their card. The child or group with 0 then goes next with '16 ÷ 8 =' and so on until the last question is called out '8 ÷ 8 ='. Time the class so that they can try to beat their score later in the lesson.		
Let's Count in 8s: Count forwards and backwards out loud in eights to 10 x 8 using the counting stick. How could we work out the middle number on the counting stick? How could we work out 6 x 8 from this number? How could we work out 9 x 8? How could we work out 11 x 8 and 12 x 8? Encourage the children to work out unknown facts by adding or subtracting eights from known facts. Go beyond 12x by imagining more sections on the counting stick to challenge HA pupils.		
Pieces of Eight: Help the pirate crew to share out their treasure fairly, using arrays of gold coins and treasure chests. Can the children write two multiplication and two division facts for each of the arrays? Complete the examples together. Identify children who may need further support with using arrays to find associated multiplication and division facts.		
The 8s Activities: Children complete differentiated Ahoy Me Hearties! Activity Sheets, using multiplication and division facts from the 8x table. Allow children to use a Multiplication Square to self-correct if necessary.     Children use counters or coins to share the treasure fairly between the pirates.    Children identify multiplication and division facts from the 8x table and solve pirate themed word problems using these known facts.    Children recall multiplication and division facts and investigate patterns from the 8x table.		



	<b>Diving into Mastery:</b> Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.	
	Children write and solve linked multiplication and division statements for the eight times table, using arrays and known facts.	
	Children identify and correct misconceptions in representations of facts from the eight times table, explaining their reasons.	
	Children investigate an open-ended problem using known facts from the eight and five times tables.	
Whole Class	8x Loop Cards: Use the Multiplication and Division 8x Loop Cards. Time the children to see if they can beat their score from the start of the lesson.	
	reit: Play these fun <u>Board Games</u> to practise recalling multiplication facts. urit: Colour the multiples of 8 on this <u>100 square</u> . Do they make a pattern?	

Wordsearchit: Practise 8x tables facts with this Multiplication 8 Times Tables Wordsearch Worksheet.

