











Multiplication and Division: Multiplication Webs

Aim: To recall and use multiplication and division facts for our multiplication tables. I can identify and investigate patterns in the multiplication tables.	The Big Question: What can we find out about the patterns made by multiplication webs?	Resources: Lesson Pack Coloured Pens Rulers
Success Criteria: I can recall multiplication facts. I can use these facts to create Multiplication Webs. I can use my ideas to predict Multiplication Web patterns.	Key/New Words: Multiple, digit, tens, units, ones, prediction.	Preparation: Web Weaver Sheet - per child Multiplication Webs Activity Sheet – per pair

Learning Sequence

	Beginning: Spin a Web Using the numbered circle on the Lesson Presentation slide, explain how the patterns are created. Use the 2x table as an example and reinforce the idea that we are following patterns in the units digits only.	
	Preparing: Describe the Pattern Using their Web Weaver Sheet , the children begin drawing the web pattern for the 3x table, as a whole class, as modelled in the Lesson Presentation . Stop and discuss the pattern as it emerges. Encourage the children to predict how it is going to turn out. <i>Do you think the pattern will be the same as the 2s? Explain why you think this.</i>	
	Exploring: Web Patterns Children use the Multiplication Webs Activity Sheet , working through the tasks at their own pace and drawing the webs on the Web Weaver Sheet .	
	Reviewing: Comparing Webs Allow the children to discuss the patterns they found as a whole class. <i>Were any patterns the same? Which multiplication tables made the same pattern? (2s and 8s, 4s and 6s, 3s and 7s). What do you notice about these pairs of numbers? (The pairs are number bonds to 10). Discuss the 5s and 10s. What is special about the units digits in these multiplication tables? (The 10s all end in 0 and the 5s in a 5 or 0, so the pattern isn't as interesting).</i>	
	Supporting It may help some children to write out the multiples first before creating their webs. If they want to investigate multiplication tables which they haven't yet learnt they could do this by adding, counting on or by using the Multiplication Square .	
	Extending Encourage the children to use what they have found out in order to predict the patterns before they create their webs. <i>Can they explain the patterns? What happens if we continue beyond the 10 times table? What pattern will the 16 times tables make?</i>	

Masterit

- Makeit:** Print the circles onto card and punch a hole for each digit 0-9. Decorate the cardboard circles then use brightly coloured wool to thread the patterns. The star patterns make great Christmas decorations!
- Writeit:** The children could make a leaflet explaining how they approached the investigation and what was found out. Take photos of their patterns to include in the leaflet.
- Predictit:** Can children predict the pattern for a much larger number (between 50 and 100) based on their ideas from the investigation? Use repeated addition to work out the multiplication table, or even a calculator. Then create the web to test their prediction.