**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 6 | STRAND: Number and Algebra | **SUB-STRAND:** **Multiplication and Division 1** | **WORKING MATHEMATICALLY:** **MA1-1WM MA1-6NA** |
| OUTCOMES: | **Describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols.** |
| **CONTENT:**  | **Recognise and represent division as grouping in equal sets(ACMNA032)*** Recognise when there are equal numbers of items in groups eg There are three pencils in each group.
* Model division by sharing a collection of objects equally into a given number of groups to determine how many in each group.eg how many in each group when 10 objects are shared between two people.
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | Ask children to share 8 counters between 4 circles and note the children’s responses and methods. |
| WARM UP / DRILL | * Previous skip counting drills
	+ Counting drills forward and backward from a variety of numbers eg count by twos from 14 to 24
* Count by 10’s from 6 to 46
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  |  At a birthday party I had to share 15 lollies between 3 children. How many would each child receive? |
| QUALITY TEACHING ELEMENTS | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Deep knowledge
* Deep understanding
* Problematic knowledge
* Higher-order thinking
* Metalanguage
* Substantive communication
 | * Explicit quality criteria
* Engagement
* High expectations
* Social support
* Students’ self-regulation
* Student direction
 | * Background knowledge
* Cultural knowledge
* Knowledge integration
* Inclusivity
* Connectedness
* Narrative
 |
| RESOURCES | Teach this website has many cards suitable for barrier games. Subscription requiredShow me iPad app<http://nrich.maths.org/145/note> open ended questions |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| **Equal numbers of items in a group.*** **Discuss the concept of sharing.**

Pose the scenario of sharing lollies between you and your brother/ sister/ mum/ dad. If you receive less than the other person what do you say? Is it a fair share?* **Lolly bag scenario**

 Show a picture of 6 lolly bags with a varying number of lollies. Discuss the scenario that these are lollies given out at a birthday party.What is the problem with them? What would people think when given them?How could the problem be fixed?* **Design task**

Children design their own lolly bags with the brief that there are 5 children at the party. They can decide the number and type of lollies to go in each bag.They are given paper bags and a variety of types of coloured paper for this design task.* **Reflection**

Are there equal numbers in each bag?Children are asked to state the number of lollies in each group or bag. | LEARNING SEQUENCERemediationES1  | * Use the same activities as below however with easier combinations eg Use 3 paper cups and share 6 cubes
* In card games deal smaller numbers of cards each.

 **It is important to relate the sharing to everyday situations** |
| LEARNING SEQUENCES1 |  **Equal numbers of items in a group*** In pairs children are given 3 paper cups and 9 unifix cubes and asked to share them into the cups. They reflect on their choices and report to other groups.
* This can then be extended to different combinations. eg 5 cups 20 blocks

**Everyday situations**These are discussed and the children find the answers by using concrete material or drawings. Then record and discuss their answers. Examples * Assessment task

Share 16 biscuits between 4 friends at a picnic.Share 8 marbles between 2 friends.Share 10 footy cards between 5 friends.* **UNO or snap**

Play a card game such as UNO or snap. Emphasis is on the process of dealing the cards so each child begins with the same number of cards. Deal different numbers of cards and ask the children to state the number given to them.* **Investigate**  the necessity to make equal shares when dividing eg What would happen if I shared 8 chocolates between myself and 3 of my friends. What would happen if I gave myself 3 chocolates?

How can I make it fair? What if there were 9 chocolates? |
| LEARNING SEQUENCEExtension Early S2 | Use larger number combinations<http://www.amathsdictionaryforkids.com/dictionary.html>Children go to Jenny Eather Maths dictionary and find meanings for term used in multiplication and division<http://www.primaryresources.co.uk/maths/mathsC2.htm>power point to challenge children with further investigations |
| **EVALUATION & REFLECTION** | In the activities are the children using the appropriate language correctly? divided, shared, equal, fair share**Student engagement Achievement of outcomes****Resources Follow up** |