<u>Mathematics Overview of Learning</u> <u>Week 5/6 Term 2</u>

Black indicates the content descriptor from the beginning of the continuum of learning in each stage (as stated by the Australian Curriculum).



<u>**Red</u>** indicates the content descriptor aligned with further understanding later in the continuum of learning in each stage (as stated by the Australian Curriculum).</u>

Kindergarten

Addition and Subtraction MAe1-5NA

Represent practical situations to model addition and sharing (ACMNA004)

Multiplication and Division MAe1-6NA

Investigate and model equal groups Record grouping and sharing using informal method

Activities to support learning at home:

(Addition and Subtraction)

• Continue with activities from Week 3/4 overview

(Multiplication and Division)

- All you need are some manipulatives like Cheerios or peanuts and some toy characters. As an example, use 3 characters. Ask your child to give each character 2 Cheerios. Now ask them how many Cheerios they have altogether. Your child will count the Cheerios to get a total of 6.
- Do one simple and quick problem on paper per day. For example, a farmer is collecting eggs from his hens. He has 2 boxes and he puts 4 eggs into each. How many eggs did he collect altogether? Draw a picture of this problem and have your child count the eggs. First write 4 + 4 = 8. Explain to your child that adding is one way to find out how many eggs the farmer collected.



Stage 1

Addition and subtraction MA1-5NA

Represent and solve simple addition and subtraction problems using a range of strategies, including counting on, partitioning and rearranging parts (ACMNA015)

Represent and solve simple addition and subtraction problems using a range of strategies, including counting on, partitioning and rearranging parts (ACMNA015)

Multiplication and Division MA1-6NA

Recognise and represent division as grouping into equal sets (ACMNA032) / Represent division as grouping into equal sets and solve simple problems using these representations (ACMNA032))

Activities to support learning at home:

(Addition and Subtraction)

• Continue with activities from Week 3/4 overview

(Multiplication and Division)

- Get your child to draw 5 flower pots with 3 flowers in each pot. Discuss: How many pots are there? How many flowers in each pot? What is the total?
- In pairs, give your child a picture showing a given number of groups with an even number of objects. Get your child to describe their picture with the number of groups and number of objects. Eg I have 4 groups with 3 flowers in each group. Their partner then draws this and finds total. It is checked to see if it matches. You could then swap and describe a picture and get your child to draw what they hear.
- **Rows and columns-** Use egg cartons and counters to show 2 rows of 6 and 6 rows of 2, discuss number of rows and columns and the number
- Work with your child to effectively count a pile of counters (or group of objects) by twos
 , fives and tens.
- Present 12 objects. Discuss the easiest way to display the objects so that they can be counted easily, ie repeated addition, skip counting
- Carl's Cookie Capers http://www.multiplication.com/games/play/carls-cookie-capers



Stage 2

Fractions and Decimals MA2-7NA

Model and represent unit fractions, including 1/2, 1/4, 1/3 and 1/5 and their multiples, to a complete whole (ACMNA058)

Investigate equivalent fractions used in contexts (ACMNA077) Recognise that the place value system can be extended to tenths and hundredths, and make connections between fractions and decimal notation (ACMNA079)

Activities to support learning at home:

- **Circular Fractions:** Students are given paper circles and asked to imagine that it is the top view of a cake. They use pencils or popsticks to show where they would cut the cake to have two, three, four, five and eight equal slices. Guide the students to use fractional language: I have cut my cake into fifths, thirds, etc.
- Using small disposable plates (2, 4 or 8) share a collection of counters etc so that each plate has an equal share. Students describe them using labels of half, quarter or eighth.
- Using lengths of string, ribbon or strips of paper students discuss how they could divide them into halves, quarters or eighths.
- Pose students with a problem. If we wanted to share 3 pikelets between 2 people, how could we do it? How many pikelets would each person receive? Students draw and explain their responses. (Alternatively, alter the number of people and pikelets in the initial question (eg 5 people / 4 pikelets)
- Cut fruit, chocolate, cupcake into half. One half is held up; this is one piece out of two. The notation is written as ½. Repeat this activity using ¼'s and 1/8's
- Making a cake out of paper. Children are given one half of a cake template; they are to draw around the piece and move the piece to form a whole cake, likewise they are given a quarter and an eighth of the cake to draw around to form a whole cake.
- Fraction fiddle: matching cake fractions <u>http://splash.abc.net.au/res/i/L2801/index.html</u>
- Equivalent fractions <u>http://www.mathplayground.com/visual_fractions.html</u>



Stage 3

Patterns and Algebra MA3-8NA

Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107)

Continue and create sequences involving whole numbers, fractions and decimals; describe the rule used to create the sequence (ACMNA133)

Length MA3-9MG

Choose appropriate units of measurement for length (ACMMG108) Calculate the perimeters of rectangles using familiar metric units (ACMMG109) Connect decimal representations to the metric system (ACMMG135) Convert between common metric units of length (ACMMG136) Solve problems involving the comparison of lengths using appropriate units (ACMMG137)

Activities to support learning at home:

(Patterns and Algebra)

- Describe patterns using the terms 'increase' and 'decrease' e.g. for the pattern 48,41,34,27. The terms decrease by seven
- On the first day after buying a new big screen TV you watch 80 minutes of TV. Your Mum tells you to halve the amount of time each day you spend watching.
- → a) How much TV do you watch on second day?
- \rightarrow b) On which day would you be watching only 5 minutes of TV?

(Length)

- Brainstorm lists/illustrations of things that be measured in centimetres, metres and those things/distances that would be too long to measure in metres.
- Discussion: estimate in kilometres and metres how far it is from their home to school. They then suggest ways they might check this, e.g. What devices could they use to measure the distance?
- What is the total of 500m, 240m, 650m and 300m? In metres? In kilometres?
- Sylvia's classroom has 10 desks. Each desk measures 125cm in width. The desks are placed side by side. Calculate the total width in a) millimetres b)metres
- https://www.youtube.com/watch?v=w7--f3Jf-vo
- 1. Which measurement is the largest? Circle your answer for each pair.
- → (a) 14 mm or 1 cm (d) 145 m or 145 km
- → (b) 334 m or 1 km (e) 3.4 cm or 30 mm
- → (c) 1 m or 990 cm (f) 10 km or 1000 cm
- Tina is making a frame for a portrait she painted at school. She needs 2 pieces of timber 240mm in length and 2 pieces of timber 180mm in length.
- \rightarrow 1. What is the total length of the frame in millimetres?
- → 2. If Tina cut the pieces from a 1 metre length of frame, how much would be left over?
- FOr optional worksheets, download from the following website <u>https://www.mathworksheets4kids.com/metric.php</u>

Websites to further develop times tables recall:

http://tablestest.com/

http://www.topmarks.co.uk/maths-games/7-11-years/times-tables