

Intensive English Language / New Arrivals Program

Mathematics and Numeracy: Teaching Learning Sequence

Strand	Number and algebra
Sub-strand	Number and place value: calculating
Levels	A B Reception, Year 1
Contributed by	Rachel Colquhoun Elizabeth Vale Primary School, South Australia Mariann Krause Elizabeth Vale Primary School, South Australia
Year developed	2016

Use this units with your own student cohort

Teachers are invited to trial and modify this teaching learning sequences. Content may need to be modified to meet the particular learning needs of a student cohort. Designers started with the same template, and while there was broad agreement on the use of the template – there may be some variations between this Teaching Learning Sequence and other Teaching Learning Sequences that were developed by DECD educators.

- differentiated activities may be found in either the activities column or the evidence and differentiation column
- generally, language elements were not repeated once they were recorded in an earlier activity
- cross curriculum priorities are included in some unites but not in others.

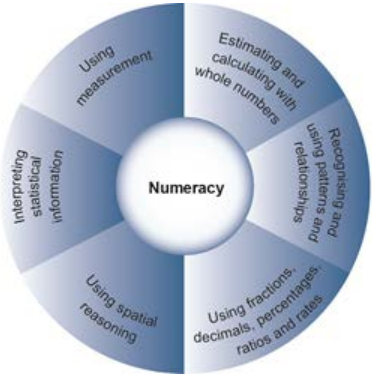
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Mathematics and Numeracy Teaching Learning Sequence

WHAT DO WE WANT STUDENTS TO LEARN?				
Strand: Number and Algebra Sub-strand: Number and Place Value <i>Calculating</i>		Learning Goals		
		Achievement Standards	Content Descriptions	Proficiencies
Mathematics Level: A B (Year Rec- 1)	Time Line: 5 weeks	A	A Models/ demonstrates a situation that involves addition that uses concrete materials/ drawings. A Models/ demonstrates a situation that involves subtraction using concrete materials/ drawings. A Explores familiar situations that involve addition and subtraction.	The student demonstrates the following proficiencies. Understanding <ul style="list-style-type: none"> distinguishes between addition and subtraction applies counting strategies to everyday situations Fluency <ul style="list-style-type: none"> chooses and applies an efficient strategy to represent and solve a number problem Reasoning <ul style="list-style-type: none"> explains the difference between addition and subtraction Problem-Solving <ul style="list-style-type: none"> chooses the appropriate operation to solve number problems
Overarching Ideas When I need to add or subtract there are different ways of calculating. Use a range of efficient mental strategies to solve everyday addition and subtraction problems.		B	Represents an addition problem using drawings and symbols – beyond 20 Uses counting strategies (count on, partition, rearrange) to calculate a simple addition mentally – beyond 20 Represents a subtraction problem using drawings & symbols – beyond 20 Uses counting strategies (count on, partition, rearrange) to calculate a simple subtraction mentally – beyond 20	B Begins to identify which familiar situations involves addition and subtraction.

Numeracy General Capability	Literacy General Capability
<p>Calculate with whole numbers Level 1a (before the end of Reception)</p> <p>Recognises the effects of adding or subtracting to/ from a collection of objects.</p>  <p>Level 1b (by the end of Reception)</p> <p>Solves everyday addition and share stories.</p>	<p>The literacy capability of <i>Composing Texts</i> is guided by and reported in the sequence of the IELP Progress Report. In addition, the following aspects of the <i>Comprehending Texts</i> continuum are taught and assessed.</p> <p><u>Comprehend texts</u></p> <p>Reception = sometime in Reception (level 1c) Use conventional behaviours and/or concrete symbols consistently with familiar and unfamiliar people to respond to tasks and texts.</p> <p>Reception (level 1d) Use conventional behaviours and/or abstract symbols consistently with different people to</p> <ul style="list-style-type: none"> • work out the meaning of texts with familiar structures • respond to questions, sequence events and identify information from texts with familiar structures • use information in texts to explore a topic <p><u>Navigate, read and view learning area texts</u></p> <p>Reception (level 1e) Navigate, read and view simple texts with familiar vocabulary and supportive illustrations</p> <p>Year 1 (level 2) Navigate, read and view texts with illustrations and simple graphics</p> <p><u>Listen and respond to learning area texts</u></p> <p>Reception (level 1e) Listen and respond to brief questions and one and two step instructions, listen for information in simple spoken texts and respond to audio texts and texts read aloud</p> <p>Year 1 (level 2) Listen for information about topics being learned in spoken and audio texts and respond to texts read aloud</p> <p><u>Interpret and analyse learning area texts</u></p> <p>Reception (level 1e) Interpret simple texts using comprehension strategies</p>

HOW WILL WE KNOW IF THEY'VE LEARNT IT?

Diagnostic Assessment: (What do the students bring?)	Assessment of Learning	Assessment as Learning	Assessment for Learning
<p><u>Dispositions</u></p> <p>Children are naturally curious learners.</p> <p>They create an understanding of mathematical concepts through manipulating materials and tangible objects e.g. sorting, grouping etc.</p> <p><u>Knowledge Skills/Understandings</u></p> <p>Sample of personal assessment by teacher i.e. SA Tfel learning design template.</p> <p>Students are able to identify differences between an addition and subtraction problem.</p> <p>Students are developing logic through the use of concrete materials and their engagement in activities e.g. calculating addition and subtraction.</p> <p>Students are able to make one-to one correspondence with numbers and objects, in order to accurately calculate addition and subtraction problems.</p>	<p>Observations of students manipulating objects, including grouping, making collections and counting.</p> <p>Update Mathematics and Numeracy Report using Levels A B C to identify the essential mathematical understandings (Number and Algebra Strand – Sub-strand Number and Place Value <i>Calculating</i>).</p> <p>Progress Report records the control over language when describing number and calculating rules or choices.</p>	<p>Student engagement with on-line activities e.g. Study Ladder, Maths is Fun. Providing immediate scores in an interactive game setting.</p> <p>Record of calculating activities in maths book/ journal.</p> <p>Students orally explain their thinking and working out in order to problem solve.</p>	<p>Students share their knowledge and understandings of calculating activities with other students, both verbally and non-verbally through asking/ answering questions and explaining processes used.</p> <p>Students demonstrate their ability to identify whether either addition or subtraction is required to solve a problem.</p>

KEY

Content Descriptions are in plain font

Achievement Standards: Bold font

Numeracy Learning Continuum Description. Underlined font

What do we want students to learn?	What will we do to get there?			How will we know if they've learnt it?
Mathematical Skills and Concepts	Sequenced learning activities	Language Elements	Resources	Evidence and Differentiation
<p><u>A. Recognises the effects of adding to a collection of objects</u></p> <p>A. Models/ demonstrates a situation that involves addition using concrete materials/ drawings.</p> <p>A. Solves everyday addition stories.</p> <p><u>A. Recognises the effects of taking away from a collection of objects</u></p>	<p><u>1.1 Making a collection of objects</u> Teacher models process, then students use concrete materials/ drawings to create a collection of a set number of objects, initially to 10, then count the number of objects in their collection and discuss.</p> <p><u>1.2 Adding to a collection of objects</u> Teacher models process. Students add to the collection by increasing the number of objects (e.g. one more than, two more than). What has happened to the number of objects in your collection? Do you have more or do you have less than you started with? What happens when we add to the collection of objects?</p> <p>Using everyday addition stories (e.g. boys and girls in the class, and classroom objects, such as number of windows and doors), students use collections of objects to add two groups together to calculate the total number.</p> <p>Students devise and demonstrate their own addition problem.</p>	<p>Participants: Classroom collections of objects (see resources to the right) <i>Group, collection, number, objects, things, number words</i></p> <p>Processes: <i>add, gets, bigger, increase, count, plus</i></p> <p>Describers: <i>some, a few, more, less</i></p> <p>Simple Sentences <i>Here are 7 counters. I add 3 more counters Now I have 10 counters. 7 + 3 = 10 Seven plus three is ten.</i></p> <p>Compound Sentences <i>Room 3 has 6 girls and room 5 has 8 girls.</i></p> <p>Complex sentence <i>When I add</i></p> <ul style="list-style-type: none"> • <i>more (shells)</i> • <i>to the group</i> • <i>a few more (blocks)</i> <p><i>the size/quantity/ total gets bigger/increases.</i></p>	<p>interlocking cubes unifix cubes teddy bear counters animal counters buttons bottle lids attribute blocks counters pop sticks feathers paperclips shells pebbles</p>	<p>Evidence: Record in Maths and Numeracy Report that student: * creates a collection of a set number of objects. * explains what add/ addition means and demonstrate using a collection of objects/ drawings. * "I am able to..." "I can..."</p> <p>Differentiation: If NO, then... practice counting strategies and 1-1 correspondence</p> <p>If YES, then... increase complexity of problem/s and introduce double digit numbers. See Appendix.</p>

<p>A. Models/ demonstrates a situation that involves subtraction using concrete materials</p> <p>A. <u>Solves everyday share stories</u></p> <p>A. Explores familiar situations which involve; - addition - subtraction</p>	<p><u>1.3 Subtracting from a collection of objects</u> Teacher models process. Students solve subtraction problems using concrete materials (e.g. animal counters) and combine (given total), separate (pull apart) and compare (the same as/ different to) collections of objects using everyday language (e.g. Three dogs, one walked away, how many left? Seven apples, two are eaten, how many left?)</p> <p>View the counting tutorial in Study Ladder. Create own stories.</p> <p>Count the beads from one side to the other. Move them in pairs to count to 10 in twos. Split the beads on each row to show different ways of making 10 (7 + 3, 6 + 4). Show how taking a bead from one side reduces the number but increases it on the other side.</p>	<p>Participants: a collection of objects that relate to current theme, eg <i>sports equipment, clothing, vehicles, animals</i></p> <p>Processes: <i>take away, remove, subtract, minus, decrease</i></p> <p>Describers: <i>less, fewer, more, greater</i></p> <p>Subject verb agreement with singular and plural <i>Here are 6 balls. Five balls rolled away. There is one ball left.</i></p> <p>Complex sentence <i>When I take away/subtract/ remove</i></p> <ul style="list-style-type: none"> • <i>some (pop sticks)</i> • <i>from the group</i> <p><i>the size/quantity/ total gets smaller /decreases.</i></p>	<p>Study Ladder /Mathematics/ Foundation/Counting/Tutorial</p> <p>https://www.studyladder.com.au/teacher/resources/gade/mathematics-au-foundation</p> <p>http://www.iboard.co.uk/activity/Abacus-105</p>	
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<p>B. Represents an addition problem using drawings and symbols</p> <ul style="list-style-type: none"> - to 10 - to 20 - beyond 20 <p>B. Uses counting strategies (count on) to calculate a simple addition mentally, to 20</p>	<p><u>2.1 Create addition problems</u></p> <p>Teacher models addition problems. Students use materials to add two groups together (e.g. using 3 large hoops to model two groups, with an addition and equal sign in between the hoops). Example: Flip Tile Toss (Flip tiles) Give students some flip tiles. Throw them and then count how many red tiles and how many yellow tiles. Create an addition equation for this. Use various amounts of tiles to create equations.</p> <p>Example: Making 20 (Number cards 1-20) Have number cards (assorted to 20) face down on the table. Pick up one card. How many more to make 20? If the answer is correct, the student may keep the card. The winner is the person with the most cards at the end of the game.</p> <p>(See Appendix for more examples)</p>	<p>Participants: Classroom objects. (see resources to the right)</p> <p>Describers: <i>larger, smaller</i></p> <p>Processes: <i>throw, use, place</i></p> <p>Simple sentences: <i>I can add numbers.</i></p> <p>Compound sentences: <i>I start with the larger number and add on the smaller number</i></p>	<p>See above. Also, classroom chairs, hoops, flip tiles cards</p> <p>Online resources: Maths is Fun</p> <p>Study Ladder</p> <p>bingo board green paper green cubes</p>	<p>Evidence: Record in MAN Report that student</p> <ul style="list-style-type: none"> • represents addition problems • uses counting strategies to calculate • explain processes when problem solving <p>Differentiation: If NO, then... practice with single digit numbers</p>
<p>B. Uses counting strategies (count on, partition, rearrange) to calculate a simple addition mentally;</p> <ul style="list-style-type: none"> - to 10 - to 20 - beyond 20 	<p><u>2.2 Use a range of counting strategies</u></p> <p>Teacher demonstrates a range of counting strategies. Students count on by adding objects to a collection. They partition and rearrange a group of objects (e.g. play number of people on the bus)</p> <p>Using the students as the people getting on the bus and chairs lined up as the bus seats, you can choose between a single-decker (max 10 people) and double-decker bus (max 20 people). On the first bus stop, add some people into the bus. Go to the next stop, and then add some more people.</p>	<p>Complex sentences relative clause: <i>I know that 4+2 is the same as 2+4.</i></p> <p>Non-finite clause: <i>I need 6 more, to make 20</i> <i>I can add numbers by counting on from the larger number.</i></p> <p>Visual literacy Represent combinations using cubes, dominoes, coloured fraction sets, etc. Read the combinations <i>1 and 8 is 9</i> <i>2 and 7 is 9</i></p>	<p>If YES, then... increase complexity of problem/s and introduce numbers up to 50</p> <p>I can use 3 counting strategies</p> <ul style="list-style-type: none"> • count on • partition • rearrange 	<p>If YES, then... increase complexity of problem/s and introduce numbers up to 50</p> <p>I can use 3 counting strategies</p> <ul style="list-style-type: none"> • count on • partition • rearrange <p>If NO, then refer to De Walle's book pages 144 to 154 for a number of activities re partitioning and rearranging.</p>
<p>B. Represents a subtraction problem using drawings and symbols;</p> <ul style="list-style-type: none"> - to 10 - to 20 - beyond 20 	<p>Bus game using subtraction. For example, let's say you add 6 people to the bus on the first stop. Then on the second stop, you remove 2 people and add 3 new people. The activity will then show you $6 - 2 + 3$</p>	<p>Visual literacy Represent combinations using cubes, dominoes, coloured fraction sets, etc. Read the combinations <i>1 and 8 is 9</i> <i>2 and 7 is 9</i></p>	<p>bingo board green paper green cubes</p>	<p>If YES, then... increase complexity of problem/s and introduce numbers up to 50</p> <p>I can use 3 counting strategies</p> <ul style="list-style-type: none"> • count on • partition • rearrange <p>If NO, then refer to De Walle's book pages 144 to 154 for a number of activities re partitioning and rearranging.</p>

<p>B Uses counting strategies (count on, partition, rearrange) to calculate a simple subtraction mentally;</p> <ul style="list-style-type: none"> - to 10 - to 20 - beyond 20 	<p>Students will recognise the same number fact will be true no matter how they count the objects or what the objects are.</p> <p>Students can think of a number as a sum or difference in different ways, rearrange the parts of an addition without changing the quantity.</p> <p>Example: 'Partition Board' (see appendix for template) - How many different combinations for the number 9, can you make?</p> <p>Example: Addition Table - Encourage students to build up their own table of addition facts, first to $5 + 5$. Over time, build up the addition table to $6 + 6$, then $7 + 7$, etc.</p> <p>2.3 Create subtraction problems</p> <p>Teacher models subtraction problems. Students use materials to subtract objects from a collection (e.g. using hoops, change operation to subtraction).</p> <p>Example: Subtraction Bingo (Bingo board) Play bingo. Instead of calling out the number, say a subtraction problem that has the number as the answers. i.e. for 5, say '$12 - 7 =$' etc.</p> <p>Example: Frogs and Lily Pads (Green cubes to represent frogs, circles of green paper to represent lily pads) Ask the student to select eight or nine frogs and put each frog on a lily pad. Q: Can you count the frogs? Q: Can you count the lily pads? Q: What can you tell me about these two numbers? (That they are the same). Ask the student to take away some frogs, Q: How many frogs did you start with? Q: How many frogs did you take away? Q: How many frogs are left in the pond? Repeat the activity with a different number of frogs and lily pads. Q: Show me the ones you took away. Q: Show me the ones that are left. How many are left? Q: Let's write a number sentence about this. How many did we start with?</p> <p>(See Appendix for further examples)</p>	<p>Questions</p> <p><i>How many different ways can you show the same number?</i></p> <p><i>Who has a different solution?</i></p> <p><i>Can you find another way to explain that?</i></p> <p><i>Why doesn't their answer make sense to you?</i></p> <p>Comparative Language</p> <p><i>bigger than, smaller than, more than, less than</i></p>	<p>blank ten-frames (two per child) – see appendix</p> <p>counters</p> <p>dice</p> <p>Partition Board (see appendix)</p> <p>Addition table (see appendix)</p>	<p>Evidence:</p> <p>Record in MAN Report that student;</p> <p>* explains what take away/ subtract/ subtraction means and demonstrates using a collection of objects/ drawings.</p>
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<p>B. Begins to identify which familiar situations involve;</p> <ul style="list-style-type: none"> - addition - subtraction 	<p><u>3. Identify differences between addition and subtraction</u></p> <p>Activity 3.1 Students recognise and explain processes used when adding.</p> <p>Example: (Twenty) Each child takes a turn to roll a die, places that number of counters onto his/her ten-frames, then announces the total number of counters on the frames. The winner is the first player to fill all twenty spaces and describes their thinking to arrive at the number.</p> <p>Activity 3.2 Students recognise and explain processes used when subtracting.</p> <p>Play the game in reverse, start with 20, roll dice to decrease.</p> <p>Example: (Twenty) Each child takes a turn to roll a die, they take away that number of counters from his/her ten-frames, then announces the total remaining number of counters on the frames. The winner is the first player to have an empty frame describes their thinking to arrive at zero.</p>			
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Overview of language and examples used in the teaching, learning and assessing program

A summary of the language, mostly pertaining to this substrand as used in the following teaching, learning and assessment program.

Oral Texts	Visual Texts and Symbols	Text Knowledge	Grammar Knowledge	Word Knowledge
<p>Spoken Texts Participation in oral texts to explore understandings about addition, subtraction</p> <p>Verbal elements Pronounces most frequently used words and phrases comprehensibly</p> <p>Speech functions Responds to and asks questions</p> <p>Understands and expresses the strategies used</p> <p>Social exchanges Builds and maintains relationships through appropriate social language including taking turns and listening to others.</p>	<p>Visuals in Multimodal texts Drawings and symbols to represent number problems</p> <p>Recognises addition and subtraction up to 20 and beyond 20</p> <p>Symbolism Symbols to represent operations</p> <p>Semiotics Intertextual representations of oral and visual number problems <i>e.g. symbols/ drawings can represent numerals and operations</i></p>	<p>Written texts Write simple computations to represent number processes and problems</p> <p>Reference items Uses pronouns <i>e.g. my, it, these, they</i></p>	<p>Simple sentences <i>The sum of $4 + 2 = 6$.</i></p> <p>Compound sentences <i>$4+2$ equals 6 and $2+4$ equals 6.</i></p> <p>Complex sentences <i>I know that $4+2$ is the same as $2+4$.</i></p> <p>Print Conventions - Forms numerals correctly</p> <p>Processes - relational (<i>equals, is, makes</i>) - mental (<i>think</i>) - action (<i>plus, minus etc.</i>)</p> <p>Tense Simple present and past tense</p> <p>Subject Verb Agreement <i>e.g. there are, I have</i></p> <p>Circumstances <i>count on, count back, count to, count from</i></p> <p>Nouns and Noun Groups <i>smaller numeral, bigger group, equal amount</i></p>	<p>Topic Vocabulary related to addition, subtraction, repeating unit, symbol, equal sets, mental, inverse relationships, number sentences, rearrange, partition, count on, calculating/ calculate, grouping</p>

Appendix

Study Ladder – Online English Literacy and Mathematics www.study ladder.com

Maths is Fun – Online resources www.mathsisfun.com

SA Tfel Companion – Learning Design Template -
http://www.acleadersresource.sa.edu.au/index.php?page=learning_design

Ten Frames Games - <http://nrich.maths.org/10742>

Maths for Learning Inclusion (M4LI) – Tasks To Move Students On – Numbers 1 – 20
Addition and Subtraction (see following attachment)

First Steps in Number – Book 2 – Chapter 4 – Calculate – Key Understandings 1 and 2
<http://www.det.wa.edu.au/stepsresources/detcms/navigation/first-steps-mathematics/?oid=MultiPartArticle-id-13603817>

Elementary and Middle School Mathematics: Teaching Developmentally, 8th Edition
John A. Van de Walle, Karen S. Karp, Jennifer M. Bay-Williams, Pearson Education Limited, 2014

Addition Tasks

Counting On

- a) **Flip Tile Toss** (Flip tiles)
Give students some flip tiles. Throw them and then count how many red tiles and how many yellow tiles. Create an addition equation for this. Use various amounts of tiles to create equations.
- b) **Card Game** (Deck of cards)
Split a deck of cards into two piles. Turn over one card from each pile. The first person to call out the correct answer to the addition of these numbers takes the cards and adds them to their pile. The winner is the person with the most cards at the end of the game.
- c) **Dice Roll** (Two conventional dice or two ten sided dice)
Alternative: Roll two dice and add the numbers together. The first person to get 10 correct answers is the winner.
- d) **How Many More?** (Spinner)
Roll a die/ spin a number spinner. How many more do you need to add to that number to make 10? (or 15, 20 etc). Use a number line to count on to find the missing addend.
- e) **Beanbag Toss** (Number cards, bean bags)
Have numbers 1 - 20 placed on large cards the floor. Students throw a bean bag onto a card. They must then calculate the number that needs to be added to this number to make 20 (or 10/15 etc). If they are correct, they keep the card, the person with the most cards at the end of the game is the winner.
- f) **Making 20** (Number cards 1-20)
Have number cards (assorted to 20) face down on the table. Pick up one card. How many more to make 20? If the answer is correct, the student may keep the card. The winner is the person with the most cards at the end of the game.
- g) **Calculator Adding** (Calculator, number cards and symbols, counters or cubes)
Ask the student to put a number sentence into the calculator, checking that the student can identify the + and = keys. Can the student construct a number sentence with the cards to match the one made on the calculator? Encourage the student to experiment with the calculator.
- h) **Adding Stories** (Cubes, hoops and dice)
Tell the student you are going to create some stories which include adding. Let the student choose a context which is suitable to them e.g there are 4 children at the party and 3 more arrive. Q: How many are there altogether? Show me how you know that. Let's make a list of all the words you can think of that we use when we are adding.

Partitioning/ Rearranging

a) **Setting the table**

Think about six bowls of cereal placed at two different tables. Draw a picture to show a way that six bowls might be placed at two tables. Can you find more than one way? How many ways do you think there are?

b) **People on the Bus**

Using the students as the people getting on the bus and chairs lined up as the bus seats, you can choose between a single-decker (max 10 people) and double-decker bus (max 20 people). On the first bus stop, add some people into the bus. Go to the next stop and then add some more people.

c) **Combining Two Groups** (Beads, two pieces of card or paper, connecting cubes)

Ask the students to count seven beads checking the students counting skills. Ask the students to split the beads into two groups then cover each group with a piece of paper. Q: How many beads are there altogether? If the student has difficulty with this let them look under one piece of paper at a time. Q: How can you work out how many altogether? Repeat this activity with different amounts until the student can combine the two groups.

d) **Number Stories**

Some puppies are black and some are brown. Altogether there are 12 puppies. Q: How many black puppies and how many brown puppies could there be? (Use connecting cubes, coloured counters, flip tiles)

e) **Partition Board**

Using counters, show how many different ways you can make --? Explain your working.

Subtraction Tasks

- a) **Flip Tile Toss** (Flip tiles)
Give the students a pile of flip tiles of a known quantity, eg 20 Ask the student to throw them up into the air and record the number of red and yellow tiles showing when they land. Write two subtraction equations for each. Eg $20 - 3 \text{ red tiles} = 17 \text{ yellow tiles}$. $20 - 17 \text{ yellow tiles} = 3 \text{ red tiles}$
- b) **Card Game** (Deck of cards)
Shuffle a pack of cards. Turn over two cards and subtract the smaller from the larger. The first person to call out the answer keeps the cards. The winner is the person with the most cards at the end of the game.
- c) **Subtraction Bingo** (Bingo board)
Play bingo. Instead of calling out the number, say a subtraction problem that has the number as the answers. i.e. for 5, say '12 - 7 =' etc.
- d) **Counter Removal** (Counters)
Start with a number of counters on the table. Ask the student to look away and remove some. Ask 'How many counters did I take?' Ask the student to record a number sentence for this.
- e) **Winning Equation** (Number cards 1-20)
Place the number cards 1 - 20 face down on the table. Ask students to pick two cards. i.e. 10 and 4. Ask students to create a subtraction equation where the answer is known ($10 - [] = 4$) and then answer it. If their answer is correct, they can keep the card. The winner is the person with the most cards at the end of the game.
- f) **Frogs and Lily Pads** (Green cubes to represent frogs, circles of green paper to represent lily pads) counting back
Ask the student to select eight or nine frogs and put each frog on a lily pad. Q: Can you count the frogs? Q: Can you count the lily pads? Q: What can you tell me about these two numbers? (That they are the same). Ask the student to take away some frogs, Q: How many frogs did you start with? Q: How many frogs did you take away? Q: How many frogs are left in the pond? Repeat the activity with a different number of frogs and lily pads. Q: Show me the ones you took away. Q: Show me the ones that are left. How many are left? Q: Let's write a number sentence about this. How many did we start with?
- g) **How Many Left?** (Cubes and pieces of paper to represent biscuits and plates, number line and felt pens)
Put seven biscuits on a plate. Q: How many biscuits? Q: Take some biscuits away and tell me how many you have taken away. Q: How many are left? On a white board or on a number line or track relate the taking away to counting back on a number line. Encourage the student to verbalise and record some number sentences such as: 5 count back 2 means you land on 3, $5 - 2 = 3$



Partition Board

DRAFT

Addition Table

+	0	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2	2	3	4	5	6	7	8	9	10	11	12
3	3	4	5	6	7	8	9	10	11	12	13
4	4	5	6	7	8	9	10	11	12	13	14
5	5	6	7	8	9	10	11	12	13	14	15
6	6	7	8	9	10	11	12	13	14	15	16
7	7	8	9	10	11	12	13	14	15	16	17
8	8	9	10	11	12	13	14	15	16	17	18
9	9	10	11	12	13	14	15	16	17	18	19
10	10	11	12	13	14	15	16	17	18	19	20