NUMERACY SCREENER INVENTORY KIT CHECKLIST - 2022

# OF ITEMS	ITEM DESCRIPTION	GRADE ITEM IS USED			
6	Objects for counting (connecting cubes – see patterning)	✓			
6	1 to 6 Dot Cards	✓	✓		
6	1 to 6 Numeral Cards	✓			
15	Patterning blocks (SNAP cubes IN 3 different colours)	✓		✓	
4 shapes	Triangle, Rectangle, Hexagon, Circle		✓		
1	Big foam triangle		✓		
3 or 4	Small triangles		✓		
7	Pompoms		✓		
19	Bears		✓	✓	
1	Forest Map		✓	✓	
6 frames	0 to 5 FRAMES (master copies in pdf)		✓		
1	Strip/Page of Children		✓		
16	Ice Cream Cones		✓		
1	Whiteboard			✓	
1 BLM	Up to and Over – worksheet	Make copies		✓	
1 BLM	Friendly numbers - worksheet			✓	
1 BLM	Strategies Card (use of it optional)			✓	

NUMERACY SCREENER INVENTORY KIT CHECKLIST - 2022

# OF ITEMS	ITEM DESCRIPTION	GRADE ITEM IS USED			
BLM 1 - $10 1 - $2 toonie 1 - $1 loonie 2 – quarters 1 – dime 1 - nickle	Collection of Money			✓	
20	Square Tiles				✓
BLM	Read, Write, and Say Numbers	Make copies			✓
BLM	Candies				✓
BLM	116 Candies				✓
BLM	How Many Ways Can you Make 142?				✓
BLM	How Did You Do It?				✓
BLM	Missing Addends (addition)				✓
BLM	Grid Paper BLM Square Tiles				✓
BLM	Paper Rectangle and fractions sheet				✓

Task:	**Materials:**	**Instructions:**	**Students demonstrate proficiency when they…**	**Supporting Activities:**
One to One Correspondence	Six objects to count	Show student a scattered collection of objects. Ask "Can you count and tell me how many (___) there are?"	Include each item only once Say the # names in correct order Keep track of starting point *Curriculum Connection:* 1:1 correspondence and a sense of 5 and 10 are essential for fluency with numbers.	-games like 'Real Life Counters', 'Grouping and Labeling Collections', 'Snakes and Ladders', 'Counter Cups', 'Listen to Pennies', 'Different Totals' (Refer to FSiM Supporting Activities Kit, 'Counting Principles')
Subitizing	Dot cards and numeral cards to six	Show a dot card and ask how many. Have student match the quantity with the related numeral.	Recognize quantity and related numeral card without counting. *Curriculum Connection:* 1:1 correspondence and a sense of 5 and 10 are essential for fluency with numbers.	-games like 'Domino War', 'Dot Bingo', 'Ten Frame Flash', Dot-Finger Games etc. (FSiM kit)
Patterning	Coloured connecting cubes arranged in a repeating pattern (abccabccabc). Extra cubes	Using a repeating pattern abcc abcc abc Ask the student "What comes next?" "What comes before the first cube?" Ask: "What is the 'core' that keeps repeating in your pattern?"	-Continue a pattern in either direction -Recognize the 'core' of the pattern *Curriculum Connection:* Repeating elements in patterns can be identified.	-cut & paste, building, beading, pattern pictures

Grade One Numeracy Screener

Task:	Materials:	Instructions:	Students demonstrate proficiency when they…	Supporting Activities
1. Oddity	Attribute blocks	Put out attribute blocks, ask "Which *shape* is different from all the rest? Why/How?"	-identify an attribute and explain why it is different. Answers could be based on thickness/round edges, etc. Curriculum Connection: Objects and shapes have attributes that can be described, measured and compared.	-working with sets where one object is different in size, shape, color, orientation, 'What's wrong with this picture' puzzles, concept sorts, etc.
2. Transformation	One big triangle (foam) and 3 or 4 small triangles	"Use the small triangles to make a big triangle. You can build it on top of the big triangle, so that no ____ (color of the large triangle) is showing if that helps."	-understand that shapes can be flipped, turned and manipulated to create a new shape. Curriculum Connection: Objects and shapes have attributes that can be described, measured and compared.	-puzzles -tangrams -pattern block pictures
3. Seriation	7 pompoms	"Put the pompoms in order of size from smallest to biggest". Keep one out. Now ask them to.. "Put the extra one in where it belongs, you can move others, if needed".	-compare and order objects and be able to add to the series, based-on size. Curriculum Connection: Objects and shapes have attributes that can be described, measured and compared.	-working with objects that may be the same or different in shape but could be ordered by length, width, height, or overall size.
4. Conservation	11 bears and a forest mat	Tell a tag game story about the bears. Start with bears in a group on the forest mat. Eg. "There are some bears in the forest, they decide to play a tag game, (spread the group out) are there more bears now?" "How do you know?"	-understand that the amount doesn't change when only the arrangement has changed (without counting). Curriculum Connection: Numbers to 20 represent quantities	-activities that involve counting and rearranging groups of items, then recounting, with the goal of not needing to recount (See FSiM Supporting Activities kit, 'Counting Principles'
5. More or Less at a Glance	Dot cards and '5 frames' to six	Divide stack of cards into 2 piles. Play war. The student tells which is more for each of the cards flipped.	-see more or less at a glance, without counting. Curriculum Connection: Numbers to 20 represent quantities	-games like 'More or Less on the Five Frame', 'War', etc. (See FSiM Kit, 'More').
6. Chooses to Use	Strip of	Put ice cream cones on another table (ice cream	-Use counting to carry-out a task.	-games like 'Matching', 'Enough

Counting	children and 16 ice cream cone pictures	parlour). Say: "Pretend that you are the mom/dad of these children. Please go to the ice cream shop (show where ice cream cones are) and get ice cream cones for all of the kids."	Curriculum Connection: Numbers to 20 represent quantities Counting Principles	for All' 'Placing an Order' (Refer to FSiM Supporting Activities Kit, 'Ice-Cream')
7. Cardinality	8 bears	After counting the 8 bears (above) ask "How many bears are there?"	-Know that the last number tells how many were counted. Curriculum Connection: Numbers to 20 represent quantities Counting Principles	-games like 'Real Life Counters', 'Grouping and Labeling Collections', 'Snakes and Ladders', 'Counter Cups', 'Listen to Pennies', 'Different Totals' (Refer to FSiM Supporting Activities Kit, 'Counting Principles')
8. Trust the Count	8 bears	Place the bears in a line, ask "How many bears are there now?" Move the bears into another arrangement, ask "How many bears are there now?"	- Trust the quantity will not change if recounted -Get the same number s/he did with the first count Curriculum Connection: Numbers to 20 represent quantities Counting Principles	
9. One More, One Less	Extra bear if needed	Bears are still in a line, ask "How many would one more be?" "How many would one less be?"	-Know automatically, without counting (understand concept of one more/one less) Curriculum Connection: Sequencing numbers to 20	-add a '+1' and '-1' cube to any board game (roll the 6-sided dice, then roll the '1 More, 1 Less' die to determine # of moves
10. Estimating	19 bears	Make a pile of 19 bears, ask "How many do you think are here?" "How could you check your estimate?" Prompt to count if needed. Stop them part way and ask "Do you want to change your estimate?" Allow them to restart from the beginning, if needed. It is important to have the student go through all steps to ensure that the first estimate wasn't just a random guess.	-Change their estimate -Know to count to check -Have a closer estimate after stopping Curriculum Connection: Estimate reasonably	-activities and experiences with groups of five and ten items, estimating various groups of items
11. Counting Sequences	No materials needed	Ask student how high they think they can count. Listen to student counting forward and then backward to and from at least 20.	Know and can say the number sequence forward and backwards to and from 20 Curriculum Connection: Sequencing numbers to 20	'Numbers and Actions', 'Walk the 100 Chart', 'Keeping Fit', 'Blast-Off' (see FSiM Supporting Activities Kit: 'Repeating Sequence A or B)

Principles of Counting

Kathy Richardson

- Counts one item for each number
(1 : 1 correspondence)
- Keeps track of an unorganized pile
- Notices when recounting a group results in a different number
- Is bothered when counting a group results in the same number after some have been added or taken away
- Spontaneously checks by recounting to see if the result is the same
- Knows 'how many after counting'
- Counts out a particular quantity
- Reacts to estimate while counting
- Spontaneously adjusts estimate while counting and makes a closer estimate
- Knows one more or less in a sequence without counting
- Notices if a counting pattern doesn't make sense
- Knows one more or less when numbers are not in sequence
- Counts by groups by moving the appropriate group of counters
- Knows quantity stays the same when counted by different-sized groups
- Uses numerals to represent quantities

Questions for Counting

Can you guess how many you think are there?

How can you find out for sure?

How can we arrange the items so they are easier to count?

Is there a way to count more quickly?

Rearrange items. How many are there now?

How many are there if you start counting from the middle?

How many will there be if you group-count (by 2's, 5's)?

Make a group of 6 items. Ask the child: 'How can you make this a set of 10 items?' How many did you add?

Repeat with 'take-away'.

Questions for Counting

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How can you find out for sure?

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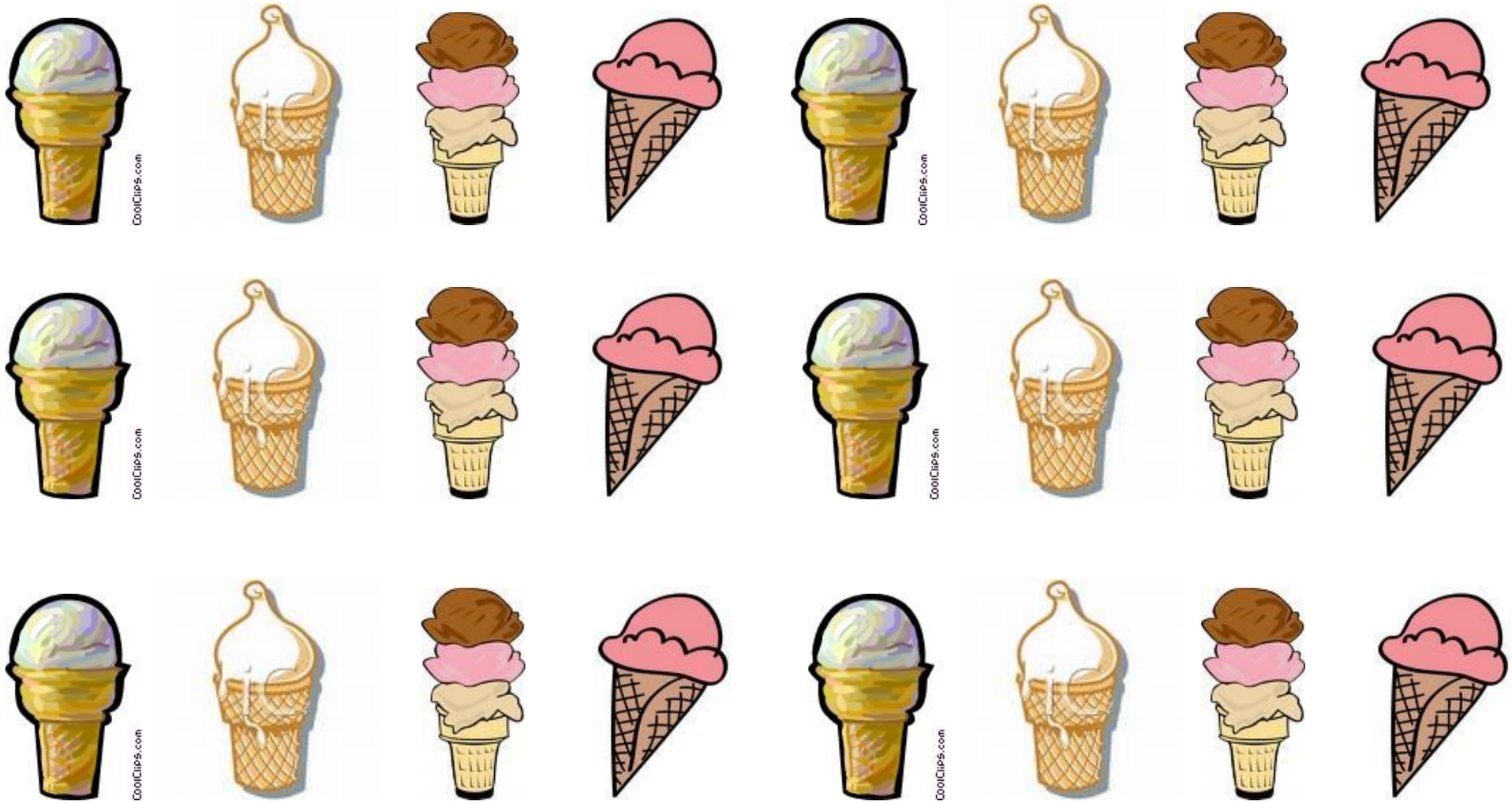
How many will there be if you group-count (by 2's, 5's)?

Make a group of 6 items. Ask the child: 'How can you make this a set of 10 items?' How many did you add?

Repeat with 'take-away'.

1	2
3	4
5	6

Grade 1 Task # 7: Choosing to Use Counting


CoolClips.com
CoolClips.com
CoolClips.com

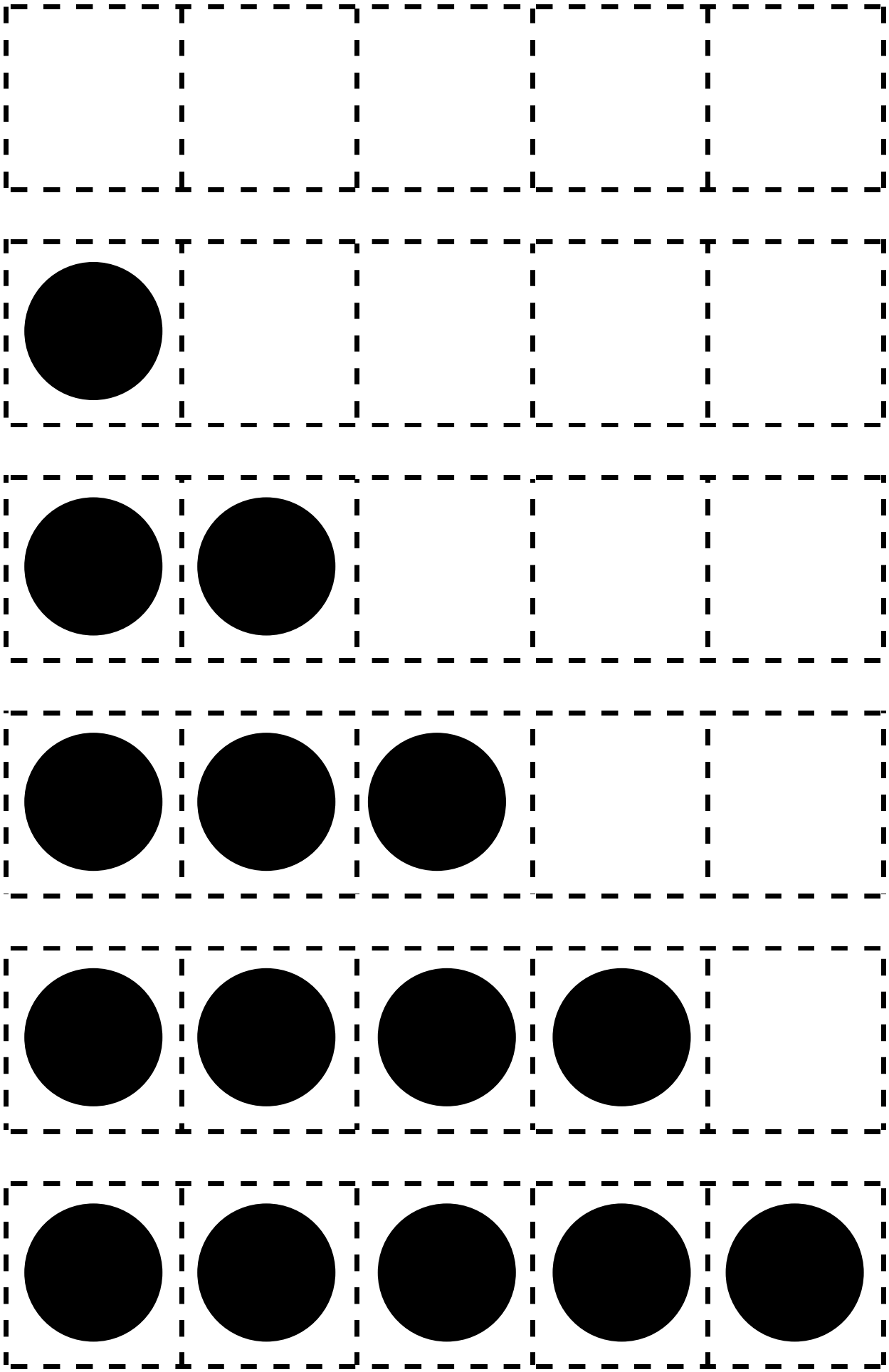
Grade Two Numeracy Screener

Task:	Materials:	Instructions:	Students show proficiency when they:	Supporting Activities
1. Skip-Counting Principle	19 bears	Using the 19 bears, ask the student if they can count them another way. Prompt to count by groups of 2 or 5, if needed.	-Skip count correctly (2s or 5s) -Know quantity doesn't change -Know what to do with the remaining bear (1) or bears (4) -Organizes to group-count Curriculum Connection: Numbers represent quantities Counting Principles	-Real Life Counters, 'Skip-Away', 'Different Totals', and other games from the FSiM Supporting Activities kit (see 'Skip-Counting')
2. Partitioning: Addition	11 bears and cave mat Whiteboard or paper	Make 2 piles of bears in the cave (e.g. 5 and 6). Say: "There are some bears sleeping in the cave in 2 piles. Write a number sentence that tells us about the two groups of bears in the cave." "Can you rearrange the bears and write a different number sentence?"	-Know that a number can be partitioned in different ways and can represent this with equations. -Understand the concept of addition Curriculum Connection: Adding and subtracting numbers to 20	- 'Number of the Day', 'Mix It Up in a Cup', 'Counting Beads', 'Separating Collections', 'Cross-Out to 18', 'Shut the Box', 'Missing Addends Game', 'Part-Part-Whole/Singapore Boxes' (see FSiM Supporting Activities Kit under 'Animals')
3. Partitioning: Subtraction	11 bears and cave mat Whiteboard or paper	Tell the students "The bears are now huddled together. Some of the bears wake up and leave the cave" (Move 3 bears out of the cave.) "Write a number sentence that tells about the bears leaving the cave." Move the bears back into the cave and ask "Can you move some bears out of the cave to write a different number sentence?"	Know that a number can be partitioned in different ways and can represent this with equations. -Understand the concept of subtraction Curriculum Connection: Adding and subtracting numbers to 20	
4. Skip-Counting Sequences	BLM: 'Skip-counting record sheet' (if needed)	Ask student to count orally a. forward by 2s starting at 80 to 110 b. backwards by 2s from 88 c. forward by 25s to 100	Understand and say the number patterns for each sequence. Curriculum Connection: Skip-Counting by 2, 5 and 10 Benchmarks of 25, 50 and 100	Constant Numbers by Twos, Counting Sequences, Numbers and Actions Pattern Sticks (Sutton), Make It Right, The Hundred Club
5. Up to and Over 100	BLM: 'Up to and Over	Provide each student blank grid and ask them to fill in the blanks by 1s.	Write the pattern correctly (If there are mistakes, ask student to	The Hundred Club, Guess My Number, Constant Numbers, Fill-in the Blank Booklet, (FSiM

	One Hundred' - FSiM		say the pattern aloud, to uncover misconceptions). Curriculum Connection: Counting – increasing and decreasing (forward and backward)	Supporting Activities Kit)
6. Friendly Numbers	Refer to strategies card, if needed.	Ask students to solve the following problems and explain their mental math strategies. a. 8 + 7 b. 12 – 7	Solve basic facts using mental strategies (eg. Make 10, Doubles, Near Doubles, etc.). Curriculum Connection: Fluency with math strategies for addition and subtraction	See Fullerton, Calkins and Van de Walle for excellent activities that build personal strategies www.poweroften.ca
7. Money	Blackline Master Collection of $ (1) ten dollar bill, (1) toonie, (1) loonie, (2)quarters, (1) dime, (1) nickel	a. Provide student/s with BLM. Ask the student match the value to each coin. b. Ask student to count the money and write amount	Identify coins Count up a collection of coins and bills. Curriculum Connection: Financial literacy – coin combinations to 100 cents	Race to $1.00, Experiences with store flyers, being a cashier, etc. 'Grab a Stash', class store, www.makeitcountonline.ca
8. See It, Build It	Snap cube model built with 9 snap cubes	Ask the student to build a congruent shape Flash the snap cube model for just a few moments and then place model out of sight of the student. Ask the student to build the shape from memory	Understand that 'congruent' means 'exact size and shape'. Use strategies, such as subitizing, and visual memory to build a congruent shape. Curriculum Connection: Visualize to explore mathematical concepts	'Quick Draw' by Grason Wheatley http://www.learnnc.org/lp/pages/787 Regular opportunities for students to create/provide directions for construction of 2D/3D shapes. Include rotations and transformations. Experience with spatial and directional language. Cathy Bruce and M4YC

200's Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200



Name: _____

Grade: _____ **Date:** _____

Line Master **Up To and Over 100**

Write the numbers to the end of the boxes.
Begin with one and count by ones to the end of the boxes.

1	**2**	**3**							

Name:_____ Date: _____

Friendly Numbers

Solve and explain your thinking in the box below:

a. 8+7=

b. 12-7=

Grade 2 Numeracy Screener – Task 7

Name_____ Date_____

Money Task

Use the word bank to label the coins. Then write the value.

quarter	penny	toonie	nickel	loonie	dime

Coin	Name	Value
		
		
		
		
		
		

Grade Three Numeracy Screener

Task:	Materials:	Instructions:	Students demonstrate proficiency when they:	Supporting Activities: Refer to Supporting Activities Kit in your school for many of the following:
1. Read and Write Numbers	Blackline Master 'Read, Write and Say Numbers' - FSiM	Provide student(s) with a copy of the BLM for this task. Call out the numbers for students to write for Q. 1 – 6 "17", "63", "110", "406", "781", "1 001" Student completes remainder of sheet independently.	Use the place values to read, write and say numbers. (If there are mistakes, ask student to explain answers to uncover misconceptions (spelling is not an objective) Scribe for students who struggle with writing. Curriculum Connection: Number concepts to 1000 – place value	Number Words (Van de Walle, pg 131) I Have, Who Has?, Numbers as Words, Next Number
2. Candies	Blackline Master 'Candies' - FSiM	Provide student(s) with a copy of the BLM. Tell students "candies can be bought as single candies or in rolls of ten" (see BLM). Determine together that there are 43 candies. Write 43 on the board. Point to the 3 and say 'use a blue pen to colour what part of the 43 means in this drawing (do not say the word 'three'. Repeat for the 4, using red.	Students should have colored 3 single candies blue and 3 'rolls' and 10 single candies red to demonstrate an understanding of the value of each digit in a two-digit number (standard and non-standard groupings). Curriculum Connection: Number concepts to 1000 – place value	Groups of Ten, Base Ten Riddles, I Have Who Has, Cover a Flat, "Twelve Ways" to Show a Number, 'Tens, Ones and Fingers', Say It/Press It, Representing Numbers, Three-Digit Numbers
3. 116 Candies	Blackline Master '116 Candies' - FSiM	Provide each student with a copy of the BLM for this task. Read the first sentence so that students understand that 'Candies can be bought as singles, rolls of ten, or in boxes of 100'. Students complete the task independently.	Show at least three ways to make 116 using hundreds, tens and ones to demonstrate an understanding of place value. Curriculum Connection: Number concepts to 1000 – place value	Odd Grouping, Three Other Ways (Van de Walle), Base Ten Riddles, Counting Rows of 10, Race to 10/100/1 000 (FSiM)
4. How Many Ways?	Blackline Master 'How Many Ways Can You Make 142?'	Ask the student 'How many ways can you make the number 142?' Ask student to try to use each operation (+, -, x, /)	Demonstrate an understanding of partitioning and operations (at least four ways). Curriculum Connection: Number concepts to 1000 – place value	Carol Fullerton operations resources, Cuisinaire Rod activities
5. How Did You Do It?	Blackline Master 'How Did You Do It?' - FSiM	Provide student/s with BLM. Write both problems on the board (26 + 37 and 62 – 23). Ask student to write down their estimate of the sum/difference, and then ask them to solve each problem in their head, using mental math	Make a reasonable estimate of the sum and difference. Use partitioning for solving two-digit addition and subtraction problems.	Number Talks, Teaching Student-Centered Mathematics

		strategies, then record their thinking	Curriculum Connection: Addition and subtraction using flexible computation strategies	
6. Missing Addends	Blackline Master 'Missing Addends'	a. Provide student/s with BLM. Write in the start unknown, change unknown and result unknown. b. Write number sentence to represent the 'change unknown' word problem.	Demonstrate an understanding of balanced equations. Curriculum Connection: One-step addition and subtraction equations	Kim Sutton, Carol Fullerton Equal Schmequal, Balancing Act, Number balance activities, Start Unknown/Change Unknown word problems (eg. Good Questions), Leaps and Bounds, acting out/modelling problems with real items
7. Building On Symmetry	Grid Paper BLM Square Tiles	Ask student to make the symmetrical configuration shown on the grid paper, using square tiles.	Understand and use the line of symmetry to create picture. Use grid lines to locate correct placement of tiles. Curriculum Connection: Attributes of objects	Creating, looking at and talking about patterns and symmetry, experiences with building and manipulating shapes activities with coordinates
8. Fractions	Paper rectangle	Ask students to a. fold rectangle in half. Open fold and indicate the part that is half. b. fold again into quarters or fourths. Open and indicate the part that is one-fourth. c. show part that is one whole.	Demonstrate an understanding of fractional concepts by creating and identifying quarters, halves and whole. Curriculum Connection: Fractions concepts	Fraction Strips, Fraction Circles, Hershey's Milk Chocolate Bar Fraction Book, Fraction Apples, The Lion's Share, Bean 13, Eating Fractions, Uncomplicating Fractions., M. Small Experiences with fractional language
9. Multiplication	Square tiles	Ask student to build an array showing 3 x 5 and then 5 x 3, using square tiles.	Understand that we use multiplication to represent 'groups of' and arrays Understand that factors are reciprocal. Curriculum Connection: Multiplication and division concepts	Many experiences of building and representing 'groups of', drawing arrays, acting-out, Minnie's Diner,

Name: _____ Date: _____

Read and Write Numbers

Write the numbers the teacher says. Here is an example:

If the teacher says ***twenty-two***, you write ***22***.

A. _____ D. _____

B. _____ E. _____

C. _____ F. _____

Write these numbers in words.

G. **19**

H. **74**

I. **507**

J. **892**

K. **1010**

DIAGNOSTIC TASK: 43 Candies

Whole and Decimal Numbers
KU 5 for Grades 3–7 (ages 8–12+)

Purpose

To explore student understanding of the meaning of the individual digits in a two-digit number when confronted by both standard and non-standard groupings of objects

Materials

- Line Master: Candies (Set B)
- Pencils or pens in red and blue

Instructions

1. Provide each student with copies of the line master for this task.

2. Introduce as for 52 Candies.

3. Ask: "How many candies are represented altogether?"

4. Talk with the students about their answers until all students agree that there are 43 candies. Observe students as they record 43 on their pages.

5. Write 43 on the board in view of all students. When giving the following instructions it is important that you do not say the words "four" or "forty" or "three."
   a) Point to the 3 in 43 and say, "Use a blue pen to colour in what this part of the 43 means in the drawing."
   b) Point to the 4 in the 43 on the board and say, "Use a red pen to colour in what this part of 43 means in the drawing."

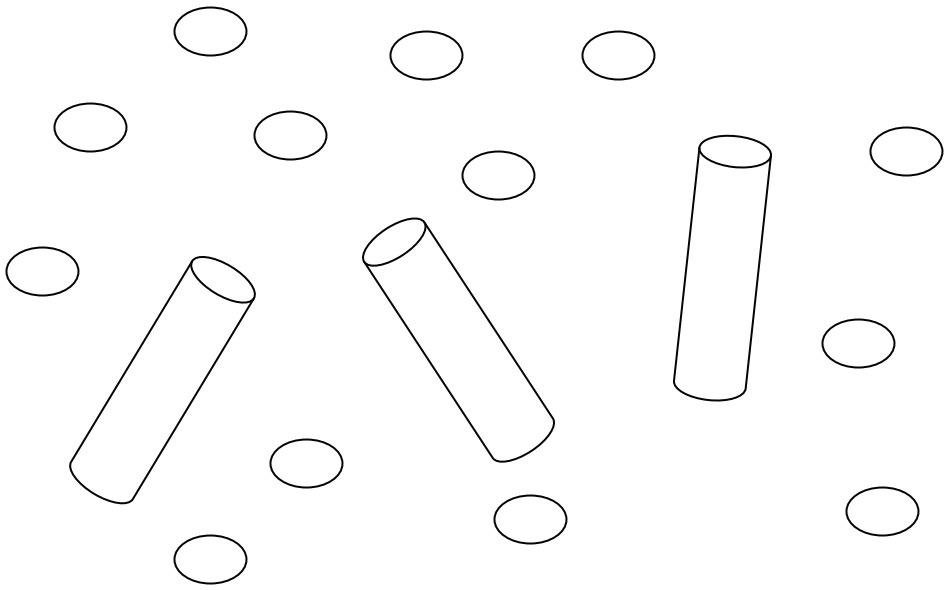
Based on ideas by Sharon Ross (1989)

Name:_____

Grade: _____ **Date:** _____

Line Master **Candies (Set B)**

Candies can be bought as single candies or in rolls of ten as shown here.



How many candies are shown here?_____

Task based on ideas by Sharon Ross. *Arithmetic Teacher, 1989*

DIAGNOSTIC TASK: 116 Candies

Whole and Decimal Numbers
KU 2 and KU 6 for Grades 3–7 (ages 8–12+)

Purpose

To explore if and how students can produce standard and non-standard partitions of a quantity

Materials

- Line Master: 116 Candies

Instructions

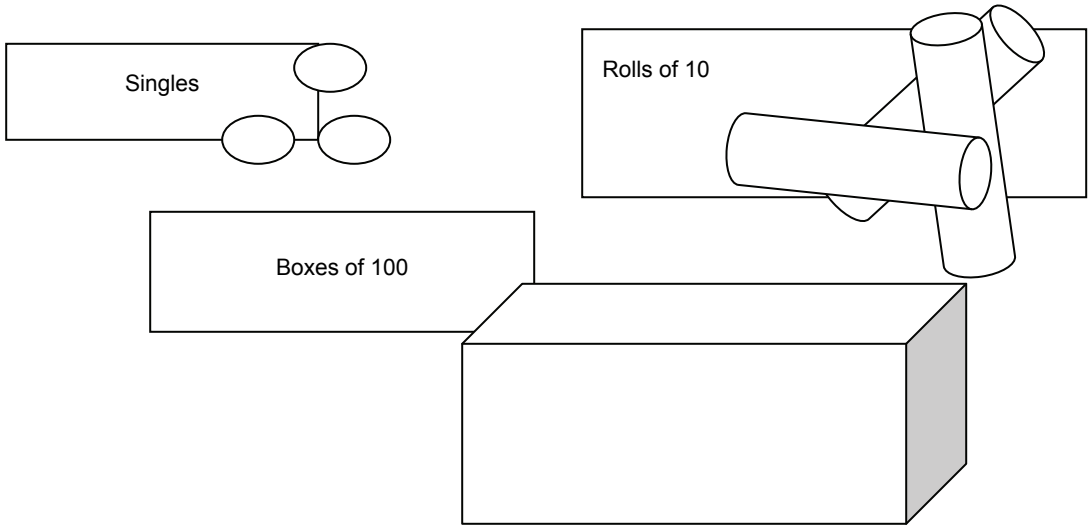
Provide each student with a copy of the 116 Candies task. Read the introductory sentence to make sure all students understand that candies can be bought as single candies, in rolls of ten, or boxes of 100 (10 rolls of ten). Students complete the task independently.

Name: _____

Grade: _____ **Date:** _____

Line Master **116 Candies**

Candies can be bought as single candies, in rolls of ten, or in boxes of 100 as shown here.



How many different ways could you make up an order for 116 candies?

Draw or write your answer in this box.

Name_____ Date_____

How Many Ways Can You Make 142?

In each box show how you can make the number 142 by trying to use different operations (adding/subtracting/multiplying and dividing). If you need more space continue on the back.

142

Example: 100+40+2		

Name: _____ Date: _____

How Did You Do It?

Solve the following problems in your head. In the first box, write down your estimation and in the second box, show how you solved it in your head.

62 – 23

Estimation:	Mental Math:

26 + 37

Estimation:	Mental Math:

Grade 3 Numeracy Screener – Task 6

Name_____ Date_____

Missing Addends Task

Fill in the missing numbers to make the equations true.

____ + 7 = 16

9 + 3 = _____

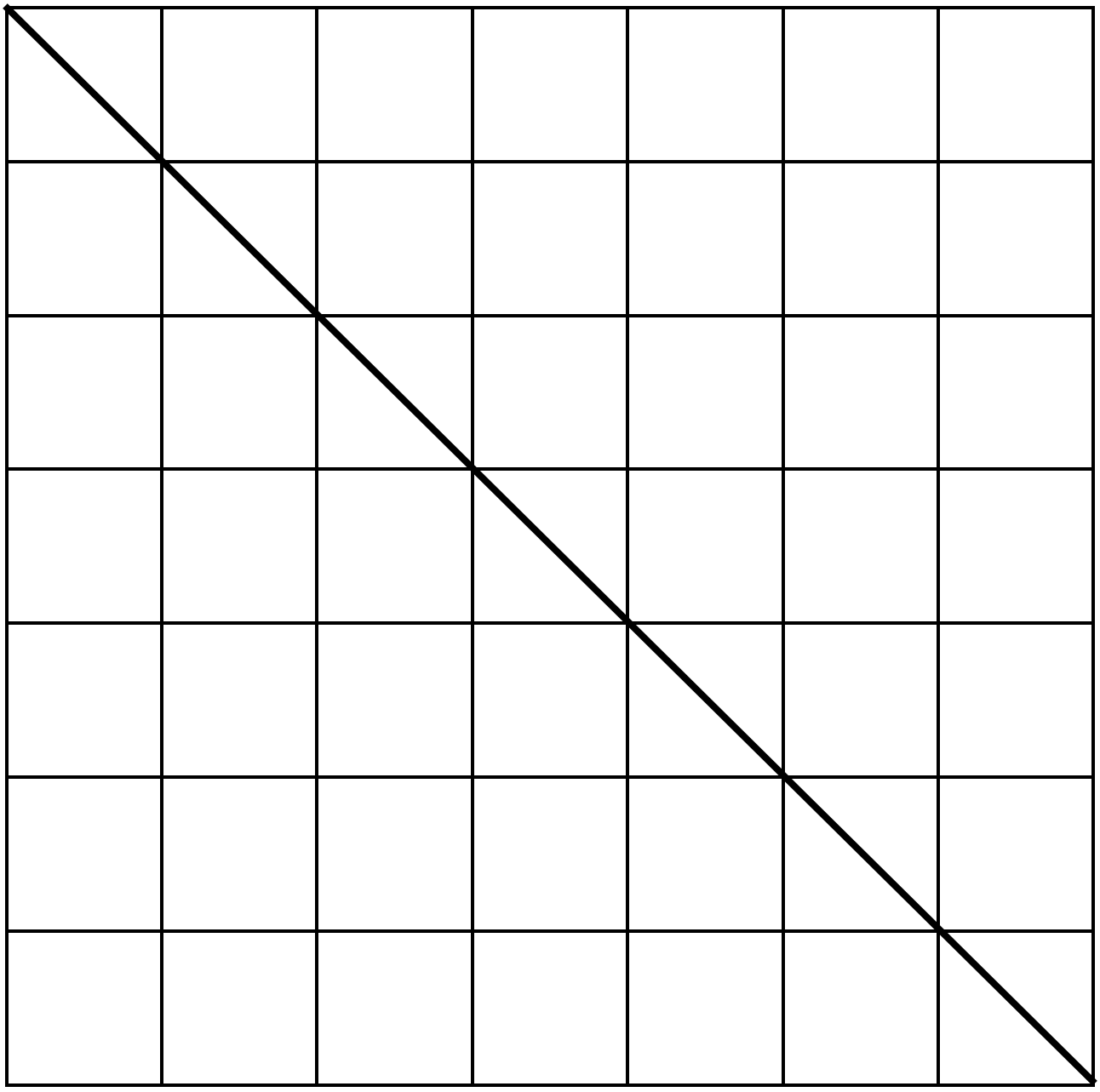
9 + ____ = 15

8 + 2 = 5 + ___

Write the number sentence to represent the problem.

Seven children were riding on the bus. At the next stop, more children got on. Now there are 12 children on the bus. How many children got on the bus?

Grade 3 Numeracy Screener – Task 7 – Building on Symmetry



1/4	1/2	1
1/4	1/2	1
1/4	1/2	1

Numeracy Goals

Goals • •		
Date	**Observation and Instruction**	**Next Steps to Meet Goal**

A	
addend	Any number used to get the sum or total in addition
area	The size a surface takes up. Area is measured in square units.
attribute	Characteristics, properties, or features which allow items to be sorted and classified as belonging to a set or a group.
C	
cardinality	When we count a set, the last number word used is the name of the quantity or "manyness" of the set. The **cardinality** of a set is a measure of the set's size, for example there are ***** (5) items in the set. (We want to encourage students to connect the concept of the whole of the quantity with the act of counting. "What does five look like, feel like" fostering thinking in quantities versus numerals)
computation	A computational algorithm is a mathematical process or set of rules with defined steps designed to solve a mathematical problem or class of problems.
computational fluency	Computational fluency is defined as having efficient, flexible, and accurate methods for computing.
computation strategies	A calculation method or combination of methods (strategies) used to solve mathematical problems involving numbers or quantities.
compensation	A way of adding or taking away numbers to make calculations easier.
congruent shape	Having the same shape and the same size
conservation	The concept that a given number or quantity remains the same even though it may be arranged in different ways. (
D	
data	Data is a collection of information gathered by observation, questioning, or measurement. It is often organized in graphs and charts for analysis and may include facts, numbers, or measurement.
division	Is sharing or grouping a number into equal parts. (Dividend: the number to be divided. Divisor or factor: a number that will divide the dividend exactly)
E	
estimation	To make an approximate calculation, often based on rounding.

equation	A mathematical statement containing an 'equals' sign, to show that two expressions are equal (the same as)
equivalent fraction(s)	Fractions with the same value.
F	
financial literacy	Financial literacy is more than just knowing about money. It is understanding financial matters and having the skills to work with this knowledge. It allows students to develop the confidence and ability to apply the knowledge, concepts, and skills.
fraction(s)	Any part of a group, number, or whole
friendly numbers	A friendly number is a number that is easy to work with. For example, multiples of 10 are 'friendly' because they are easy to work with when adding or subtracting. Early examples: 1+9, 2+8. 3+7, 4+6, 5+5, 6+4, 7+3, 8+2, 9+1
less than	Not as many as. The less than symbol < shows relationships between numbers or values.
M	
mathematics	the study of the measurement, properties, and relationships of quantities and sets, using numbers and symbols. It is the formal and broad study of the sciences of numbers, quantities, geometry, and forms.
monetary calculations	The key terms and calculations related to measurement, and the functions of money
more than	More than as many as. The more than symbol > shows relationships between numbers or values.
N	
numeracy	Numeracy is an individual's ability to reason an apply simple numerical concepts. It is a person's literacy in mathematics.
P	
partitioning	A strategy that splits (partitions) numbers into smaller addends, factors, or place values to make calculations easier.
patterning	Patterns are things that repeat in a logical way. They can be numbers, images, or shapes. The **core** is the shortest string of elements that repeats in a repeating pattern and is used to extend the pattern.
perimeter	The distance around the outside of a shape, calculated by adding the length of all sides together.

place value	The value of a digit depending on its place in a number. In the decimal system, each place is 10x's bigger than the place to its right. The decimal system uses 10 digits to show all numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 by place by using place value and a decimal point to separate whole numbers from decimal fractions.
Q	
quantities	The amount, number of, total, sum, size or extent. How much or how many,
R	
S	
seriation	Is arranging objects in order by size, location, or position. Ordering requires the ability to see differences and compare multiple objects.
skip counting	Counting forwards or backwards in multiples or intervals of a given number.
subitizing	Instantly recognizing the number of objects in a small group without having to count them. (Relates to computational fluency)
subtrahend	In a subtraction equation, the subtrahend is taken away from the minuend to give a difference.
T	
transformation	A change in position or size, including a reflection... flip, a translation... slide, a rotation... turn and a dilation... zoom. A geometric change in position where figures remain congruent having the same size and shape, or in the case of a dilation (enlargement) the shape remains the same with the only variation being the size.
trusting the count	Is knowing that when you are counting a set of objects, the last number you say represents the total number in the set. (Related to the principle of conservation)