QUESTION 1

How can we represent quantities with numbers?

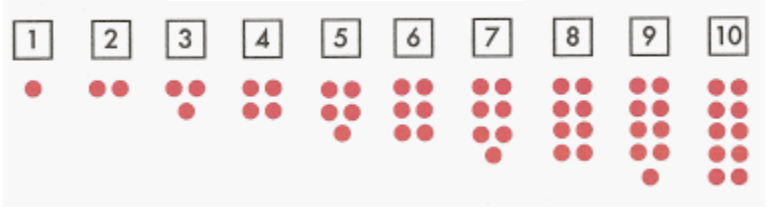
Math Work Plan #1

sand paper numeral

Number Rods

Spindle Box

Cards and Counters



Colored Bead Stairs

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Golden Bead Chain

Penny
(1 cent)

Nickel
(5 cents)

Dime
(10 cents)

Quarter
(25 cents)

50 Cent Piece
(50 cents)

Loonie
(1 dollar / 100 cents)

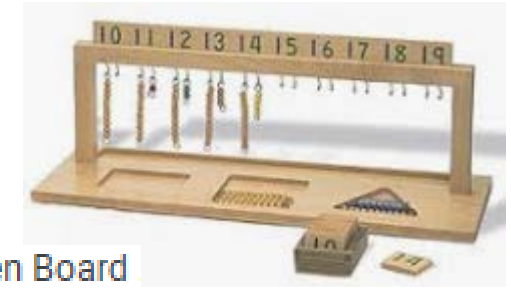
Toonie
(2 dollars / 200 cents)

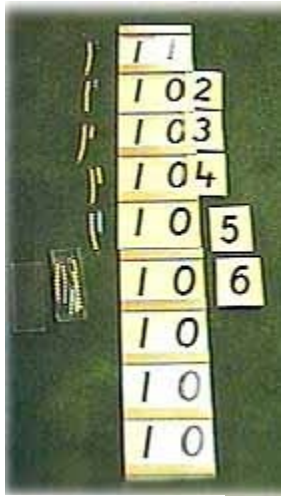
Colored Bead Stairs

Golden Bead Chain

Bead Bars for Teen Board

teens board with short stair





Teen Boards:

Fraction Insets

Grade 1

1a. 1-1 correspondence, cardinality, conservation of number, order

1b. Count within 100, forward by 1, starting at any number

1c. Count backward from 20 to 0 by 1

1d. Skip count 10 100 forward by 5, and 10, starting at 0

1e. Relate a numeral to a specific quantity

1f. Represent quantities concretely, including with coins and bills, pictorially and symbolically

1g. Recognize the quantity in patterned and non-patterned sets to 10 (conceptual subitizing)

1h.split a set of objects into two equal groups

1i. Split (partition)an object into two equal-sized parts (halves)

1j. Vocabulary

Students make meaning of and represent quantities within 100

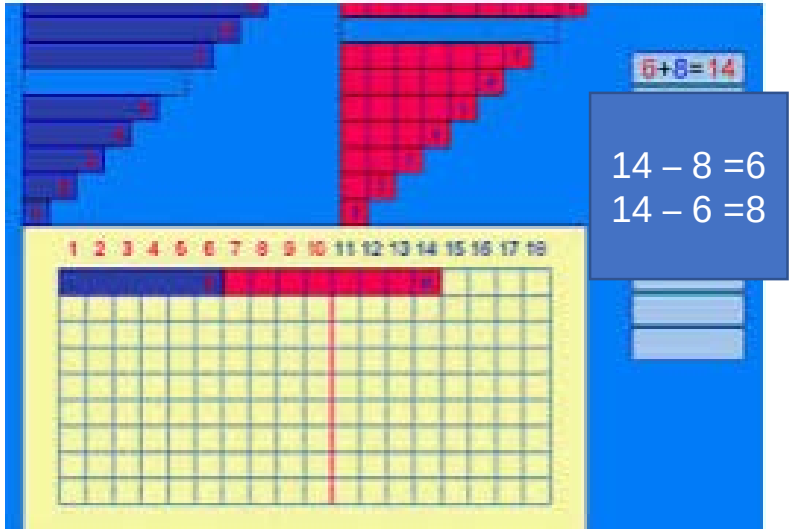
Students make meaning of one- half in familiar contexts

QUESTION 2

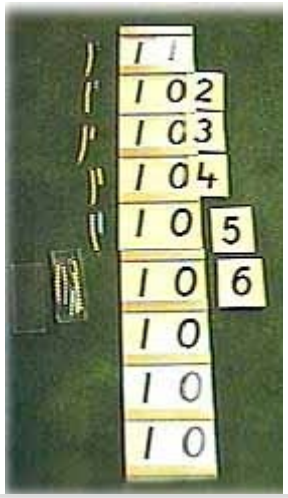
How can we compose and decompose quantities?

Math Work Plan #2

Addition Snake Game ·



Addition Strip Board



Seguin Teen Board

Hundred Board

Grade 1

2a. Explore ways to compose and decompose quantities

2b. Explore patterns in addition and subtraction

2c. Represent addition and subtraction strategies concretely, pictorially or symbolically

2d. Add and subtract in joining, separating and comparing situations

2e. Add and subtract quantities within 20, including 0, without a calculator

2f. Recall single-digit addition number facts to a sum of 10 and related subtraction facts.

2g. vocabulary

Students represent composition and decomposition of quantities

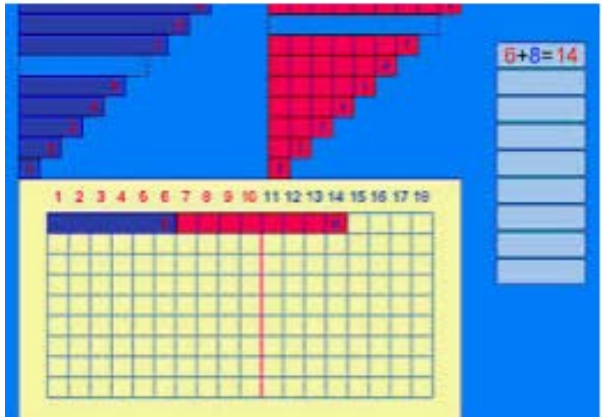
QUESTION 3

How can we share and group quantities in familiar contexts?

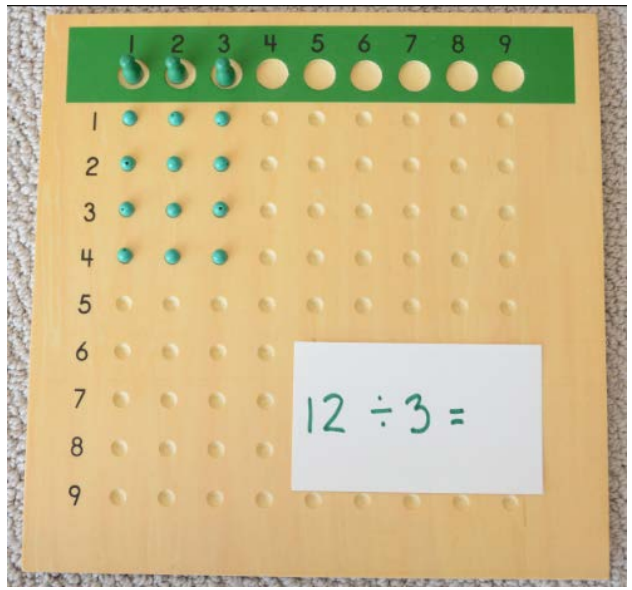
Math Work Plan #3

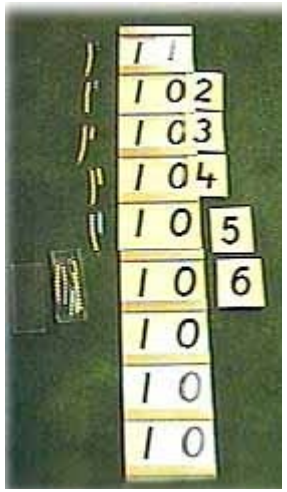
Addition with Golden Bead materials

Addition With Strip Board



Unit Division Board





Teen Boards:

Ten Board & Beads

Hundred Board,

Grade 1

3a. Explore equal sharing and equal grouping situations concretely or pictorially

3b. Represent equal sharing and equal-grouping situations concretely or pictorially

3c. Apply conservation of number when sharing or grouping

3d. Vocabulary

Students explore and represent sharing and grouping situations using quantities within 20.

QUESTION 4

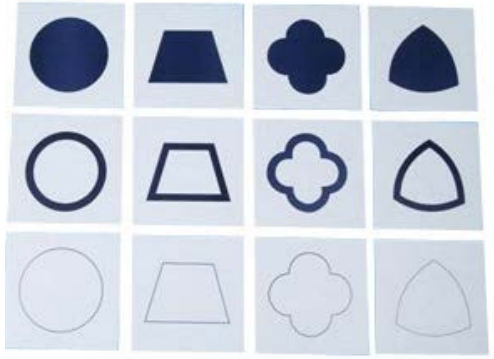
Math Work Plan #4

How can we compare shapes using attributes?

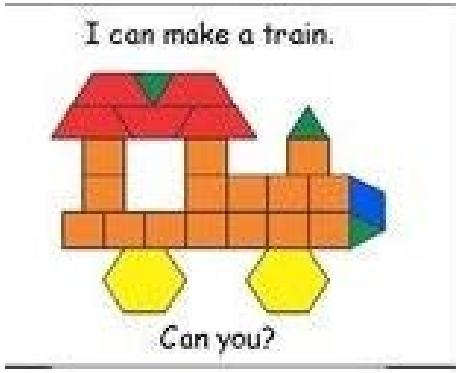
Addition with Golden Bead materials

Geometric Solids with Bases .

Geometry Cabinet Cards

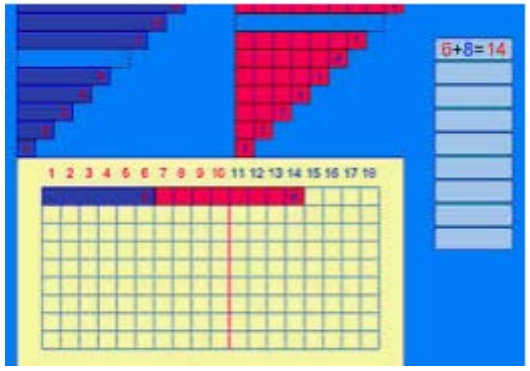


Golden Bead Chains

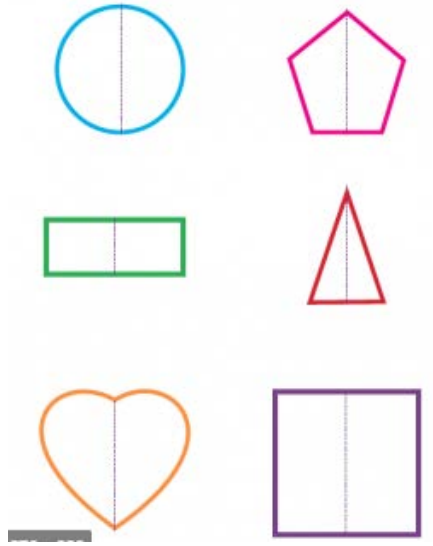


Ten Board & Beads

Addition With Strip Board



Geometric Cabinet



Grade 1

4a. Sort 2-D shapes, including squares, circles, rectangles, and triangles, and 3-D shapes including cubes, cones, cylinders and spheres, by a single attribute and describe the sorting rule

4b. Relate the attributes of 2-D and 3-D shapes to objects in the environment

4c. Describe 2-D and 3-D shapes in varying orientations

4d. Compose and decompose composite 2-D shapes

4e. Explore symmetry concretely

4fVocabulary

Students describe and compare shapes in the environment.

QUESTION

How can we explore position and movement?

Grade 1

Vocabulary

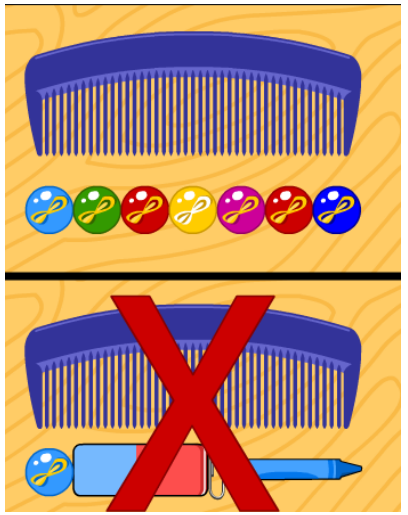
Students explore and demonstrate the positions and the movement of objects

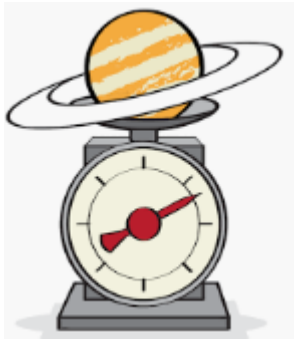
QUESTION 5

How can we compare objects to measure?

Math Work Plan #5

Golden Bead Chains





Addition Chart -

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

Ten Board & Beads

bead chains and squares, skip counting ...

Addition Chart -

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

Long Red Rods

Grade 1

5a. Order objects by length or mass using direct comparison

5b. Compare two objects indirectly using a third object(indirect comparison)

5c. Measure length using many copies of the same non-standard unit

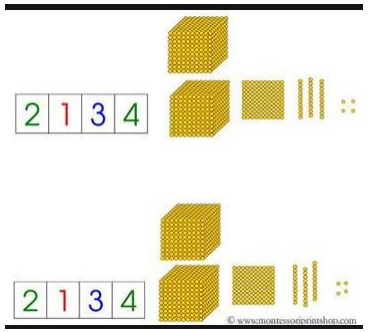
5d. Vocabulary

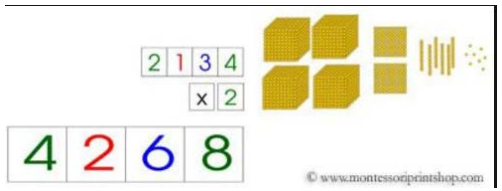
Students compare length and mass of familiar objects using non-standard units.

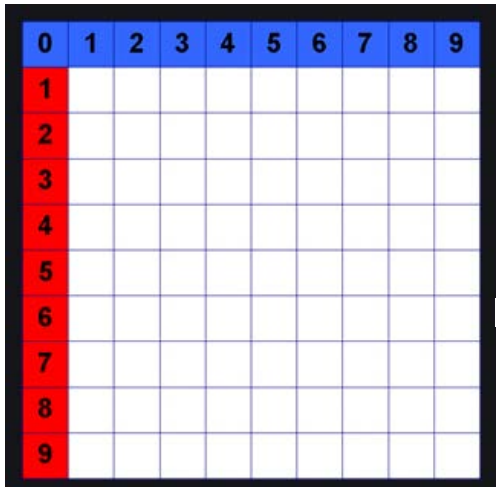
QUESTION 6

How can we represent relationships between quantities?

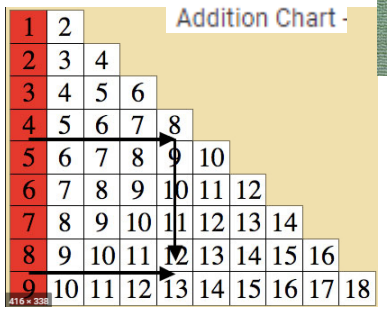
Math Work Plan #6





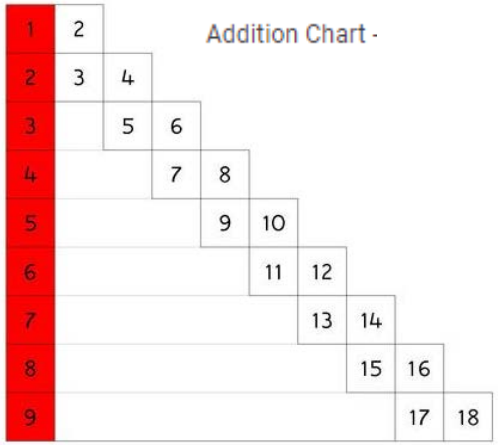


Addition Chart -



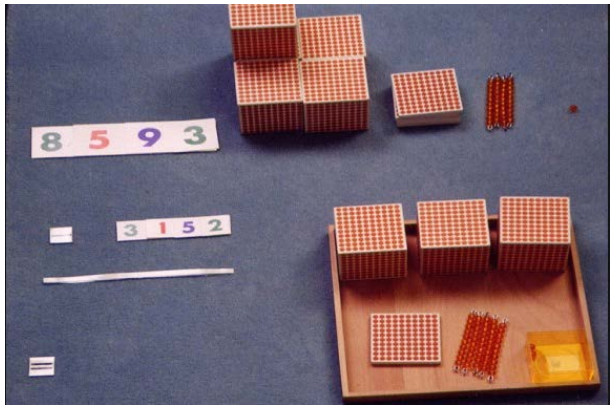
Addition Chart -

Golden Bead Chains



Addition Chart -

Addition Snake Game -



Grade 1

6A. Represent equality concretely or pictorially

6b. Record equalities using the equal sign (=)

6c. Vocabulary

Students demonstrate equality as a relationship between quantities.

QUESTION 7

How can we express relationships between pattern elements?

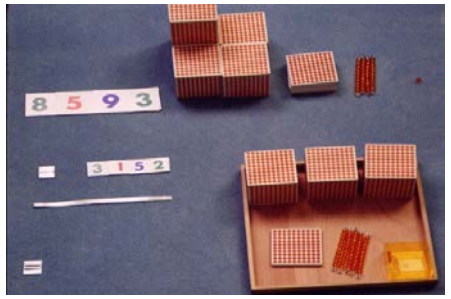
Math Work Plan #7

Addition Chart -

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

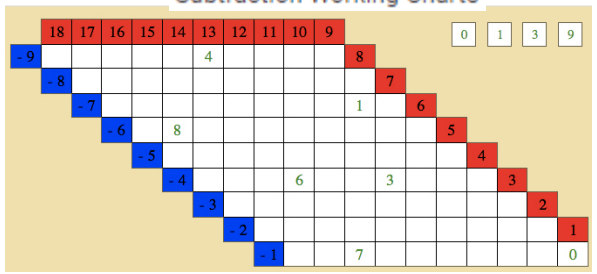
Addition Chart -

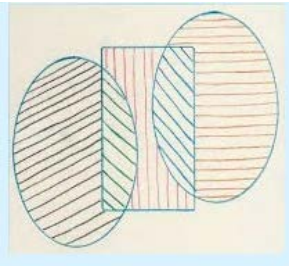
0	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									



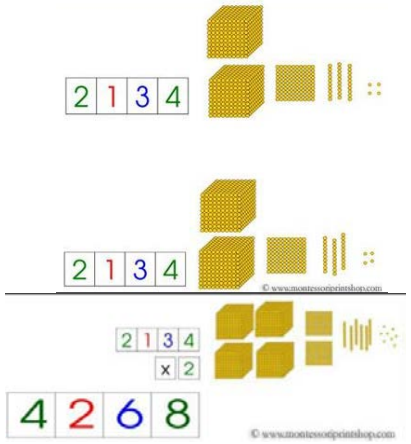
Addition Snake Game -

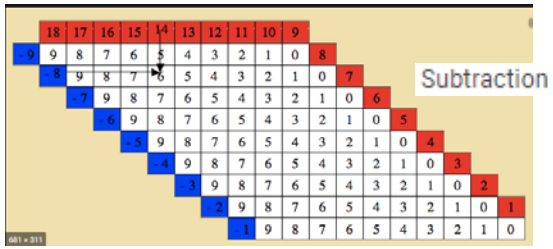
Subtraction Working Charts





bead chains and squares, skip counting ...





Grade 1

7a. Describe patterns including how patterns repeat

7b. Reproduce, extend, and create repeating patterns with two to four elements

7c. Translate a repeating pattern from one representation to another

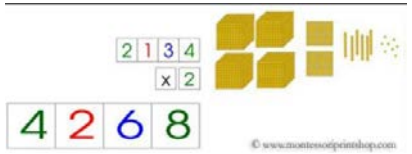
7e. Vocabulary

Students describe relationships among elements in a repeating patterns.

QUESTION 8

How can we relate time to events?

Math Work Plan #8

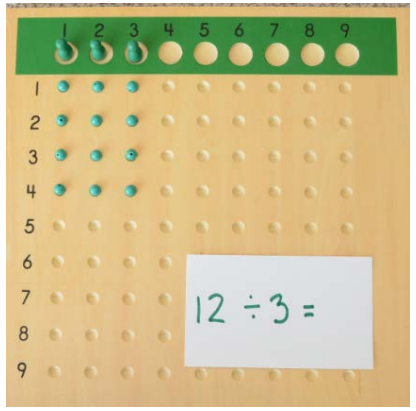


bead chains and squares, skip counting ...

Addition Snake Game ·

Multiplication Board ·

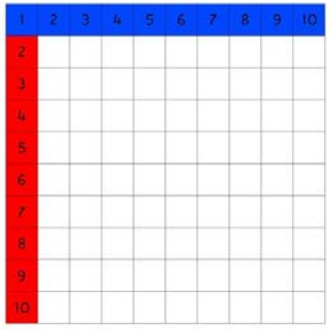
Unit Division Board



Multiplication chart ..

1									
2	4								
3	6	9							
4	8	12	16						
5	10	15	20	25					
6	12	18	24	30	36				
7	14	21	28	35	42	49			
8	16	24	32	40	48	56	64		
9	18	27	36	45	54	63	72	81	
10	20	30	40	50	60	70	80	90	100

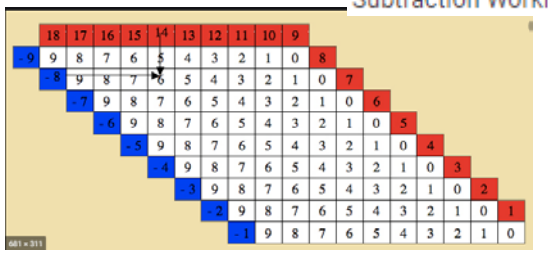
Multiplication chart ..

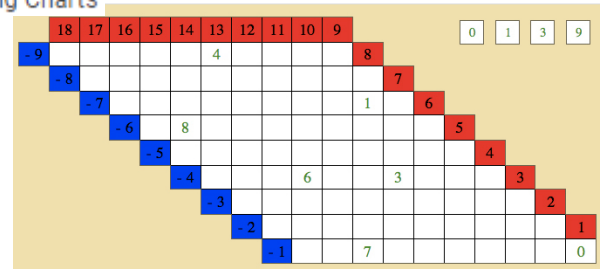


Multiplication chart ..

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Subtraction Working Charts





Grade 1

2a. Describe a sequence of events using time vocabulary in familiar contexts, including yesterday, today, tomorrow, morning, afternoon, evening, past, present, and future.

2b. Connect lived experiences and cultural events to time.

2c. Explore cultural stories of first Nations, Metis, and Inuit that describe traditional activities in relation to seasons

2d. Estimate and measure time using non-standard units

2e. Compare the duration of activities

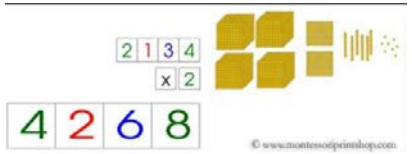
2h. Vocabulary

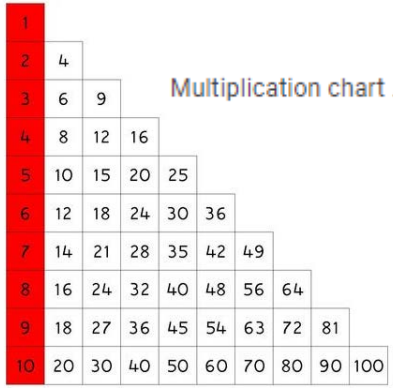
Students describe relationships between time and experiences

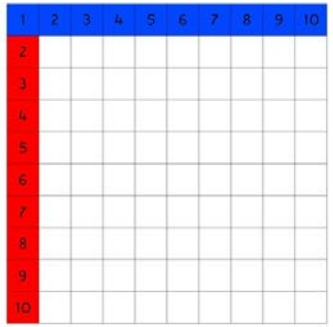
QUESTION 9

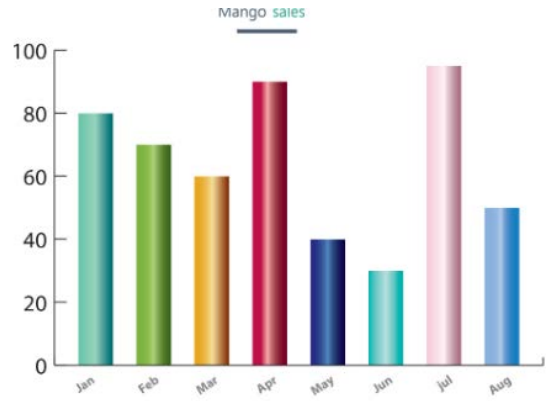
How can we collect and represent data?

Math Work Plan #9









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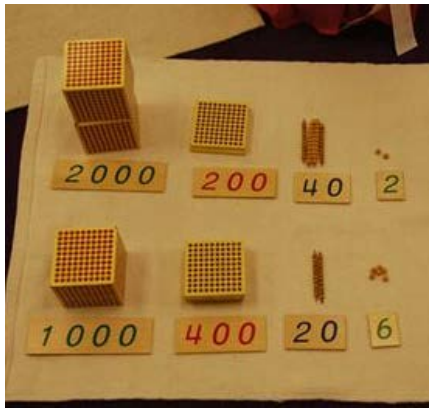
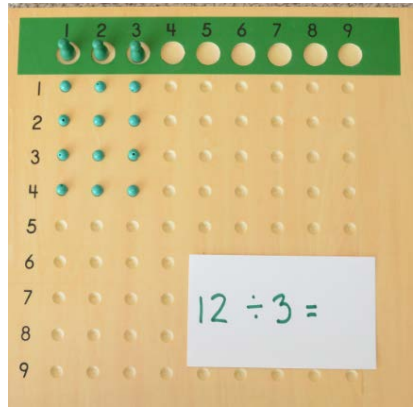
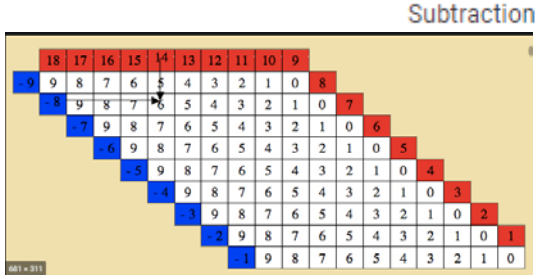


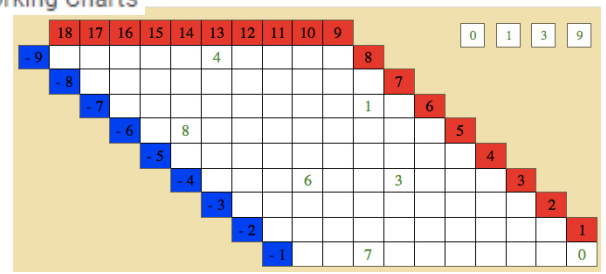


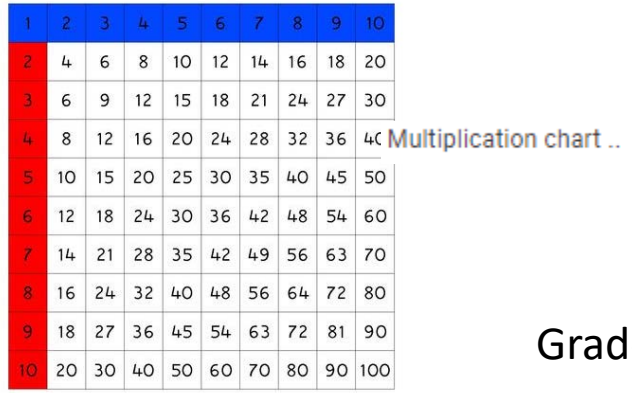
Our Favourite Sports

Sport	Tally	Number of Students
Hockey	𝍸 I	6
Soccer	𝍸	5
Basketball	IIII	4
Gymnastics	II	2

Addition Snake Game ·







Grade 1

9a.collect and classify first-hand data

9b.represent data in concrete graphs and pictographs using one-to-one correspondence

9c. Describe data in a graph using comparative vocabulary, including more, less, most, greatest, least, same, and not the same

9d. Vocabulary

Students represent and describe data in response to a given question.

QUESTION 10

Math Work Plan

Why is it important for us to create clear instructions?

Grade 1

10a. Follow 2 or 3 step instructions to achieve a desired outcome

10b. Sequence 2 or 3 steps to achieve a desired outcome

10c. Exchange ideas to achieve a desired outcome requiring a 1-3 step process

10d. Create 1-3 step instructions to achieve a desired outcome

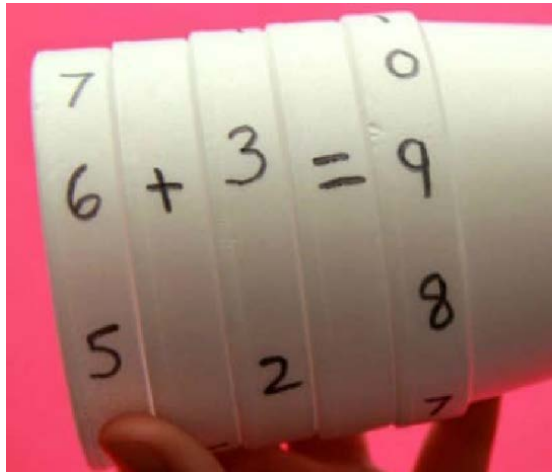
10e. Recognize when instructions do not correspond to actions

10f. Vocabulary

Students follow a determined process and create an original process that achieves a desired outcome.

QUESTION 11

How can we use mathematics in various activities?



Grade 1

11a. Engage in activities that support curiosity with mathematics

11b. Work together with others (collaborating) to develop understanding of mathematical concepts

11c. Preserve through obstacles that arise in mathematical experiences

11d. Share experiences and ideas related to mathematical play

11g. Vocabulary

Students engage with mathematics in various activities