# International College

# Elementary School
## Grade One Math Level Requirements
# 2018-19

**By the end of grade one, learners will:**

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**Data Handling**

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A. *collect, organize data and display the data using concrete graphs and pictographs without regard to the order of labels on the horizontal axis*
B. *read and describe data presented in concrete graphs and pictographs*

1. Understand that information about themselves and their surroundings can be collected and recorded in different ways(concrete graphs and pictographs)
2. Sort and label objects into sets by one or more attributes
3. Collect, display and interpret data for the purpose of answering questions
4. Create a pictograph and sample bar graph of real objects and interpret data by comparing quantities (for example, more, fewer, less than, greater than)
5. Use Venn diagram to explore and compare relationships between data

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**Measurement**
**By the end of grade one, the student will;**

- *Understand that tools can be used to measure*
- *Estimate, compare, and measure objects using nonstandard units of measurement: length, time ,mass using non standards units of the same length*
- *Compare, describe and order objects using attributes measured in nonstandard units*

1. Demonstrate an understanding of the use of non-standards unit of the same size for measuring

2. Identify, compare, order and sequence objects and events using relative terms (heavier, taller, bigger, faster….)
3. Estimate ,measure and record lengths, heights, and distances using nonstandard units
4. Construct using a variety of strategies tools for measuring lengths and distances using non standards units
5. Compare length using nonstandard units
6. Measure, trace and construct a segment of a given length using nonstandard units
7. Estimate, measure and record mass of an object using non-standard units
8. Understand that time is measured using universal units of measure; for example, years, months, days, hours, minutes and seconds.

9. Understand that calendars can be used to determine the date, and to identify and sequence days of the week and months of the year

10. Identify, describe and sequence events in their daily routine(before, after, bedtime, story time, today, and tomorrow)

11. Estimate, measure and describe the passage of time using non standard units (number of claps, flips of sand timer…)

12. Read digital and analogue clocks and use them to identify benchmarks times (times for breakfast, lunch dinner…)
13. Read and tell analogue time to the hour and half hour
14. Use non-standard units of measurement to solve problems in real-life situations involving length, mass and time

**Shape and Space**

- **By the end of grade one, learners will :**
  a. *Identify common two dimensional shapes and three dimensional figures and sort and classify them by their attributes*

b. *Compose and decompose common two dimensional shapes and three dimensional figures*

c. *Describe the relative location of objects using positional language*

   1. Identify, describe, sort and classify common two dimensional shapes by their attributes

   2. Trace and identify two dimensional faces in three dimensional figures using concrete models

   3. Identify, describe, sort and classify common three dimensional shapes by their attributes.

   4. Build three dimensional structures using concrete material and describe the two dimensional shapes the structure contains.

   5. Compose patterns, pictures, and designs using common two dimensional shapes

   6. Identify and describe shapes within other shapes in a geometric design

   7. Describe relative locations of objects or people using positional language (over; in front of; behind, inside, outside, after, before, between)

   8. Describe relative locations of objects on concrete maps created in the classroom

   9. Use mathematical language to describe geometric ideas

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### Pattern and Function

**By the end of grade one, learners will :**

A. *Identify ,describe, extend and create repeating patterns*

B. *Demonstrate an understanding of the concept of equality using concrete material*

   1. Identify and recognize patterns in real life

   2. Identify rules for a repeating patterns

   3. Understand the concept of equality using concrete materials

   4. Understand that patterns can be found in numbers,( for example, odd and even numbers, skip counting)

   5. Understand and model with manipulatives the relationship between addition and subtraction

   6. Understand the associative and commutative properties of addition.

7. Create, describe, and extend patterns including pictures, numbers and letters.

**Number**

## By the end of grade one, learners will:

- *Read, represent, compare and order whole numbers to 50 and use concrete materials to investigate fractions.*
- *Demonstrate an understanding of numbers by counting forward to 100 and backward from 20*
- *Solve problems involving the addition and subtraction of single digit and whole numbers using a variety of materials*

1. Understand, read and write standard, word, and expanded forms; compare, order and model numbers, using the base 10 system to a hundred.

2. Connect number names and numerals to the quantities they represent in groups of 2s, 5s and 10s up to a hundred

3. Compose and decompose numbers up to 20 in a variety of ways using concrete materials
4. Count by 1's, 2's, 5's and 10's up to a hundred
5. Counting forward to a hundred by 1s, 2s 5s and 10s and backwards from twenty by 2s and 5s
6. Estimate the number of objects in a set and check by counting up to twenty
7. Use ordinal numbers in meaningful context up to 31.
8. Read, write, and model addition and subtraction without regrouping
9. Learn addition and subtraction facts up to 20 using different strategies
10. Read, write, and solve word problems using a variety of strategies
11. Use mental math strategies to solve addition and subtraction equations up to 20
12. Introduce and identify simple fractions (whole, half, quarter and third)