

# Maths

## Data Handling

### Year 2

#### IB Phase 2

Learners will understand how information can be expressed as organized and structured data and that this can occur in a range of ways. They will collect and represent data in different types of graphs, interpreting the resulting information for the purpose of answering questions. The learners will develop an understanding that some events in daily life are more likely to happen than others and they will identify and describe likelihood using appropriate vocabulary.

#### Conceptual Understandings IB2

Information can be expressed as organized and structured data.  
Objects and events can be organized in different ways.  
Some events in daily life are more likely to happen than others.

## Learning outcomes

### Data Handling

Collect, organize and represent data (including pictograms, bar graphs, Venn Diagrams, tally charts and living graphs using real objects and people)

Interpret data and draw conclusions where one object or symbol can represent many data values for example, one dot equals 10 votes

### Probability

Identify activities and familiar events that involve chance and describe them using appropriate vocabulary for example 'likely' or 'unlikely'

## Pattern and Function

### Year 2

#### IB Phase 2

Learners will understand that whole numbers exhibit patterns and relationships that can be observed and described, and that the patterns can be represented using numbers and other symbols. As a result, learners will understand the inverse relationship between addition and subtraction, and the associative and commutative properties of addition. They will be able to use their understanding of pattern to represent and make sense of real-life situations and, where appropriate, to solve problems involving addition and subtraction.

#### Conceptual Understandings IB2

Whole numbers exhibit patterns and relationships that can be observed and described.  
Patterns can be represented using numbers and other symbols.

## Learning outcomes

### Pattern and Function

Investigate, describe and represent patterns using numbers and other symbols

Recognise patterns in the number system and describe number patterns formed by skip counting

Identify and describe the inverse relationship between addition and subtraction

Identify and describe patterns in odd and even numbers

## Shape and Space

### Year 2

#### IB Phase 2

Learners will continue to work with 2D and 3D shapes, developing the understanding that shapes are classified and named according to their properties. They will understand that examples of symmetry and transformations can be found in their immediate environment. Learners will interpret, create and use simple directions and specific vocabulary to describe paths, regions, positions and boundaries of their immediate environment.

#### Conceptual Understandings IB2

Shapes are classified and named according to their properties.  
Some shapes are made up of parts that repeat in some way.  
Specific vocabulary can be used to describe an object's position in space.

### Learning outcomes

#### 2D and 3D Shape

Sort, describe, construct and label familiar two-dimensional shapes and three-dimensional objects in the environment using appropriate vocabulary

#### Transformation and symmetry

Identify and record examples of symmetry in the environment

#### Location

Describe position and direction using mathematical vocabulary for example, left, right, forwards, backwards

## Measurement

### Year 2

#### IB Phase 2

Learners will understand that standard units allow us to have a common language to measure and describe objects and events, and that while estimation is a strategy that can be applied for approximate measurements, particular tools allow us to measure and describe attributes of objects and events with more accuracy. Learners will develop these understandings in relation to measurement involving length, mass, capacity, money, temperature and time.

#### Conceptual Understandings IB2

Standard units allow us to have a common language to identify, compare, order and sequence objects and events. We use tools to measure the attributes of objects and events. Estimation allows us to measure with different levels of accuracy.

## Learning outcomes

### Measurement of shape and space

Estimate, compare and measure the length with standard units

Estimate, compare and measure mass, capacity and volume of objects using nonstandard units

### Measurement of time

Read and write the time to the hour and half hour

Name and order the months of the year and seasons

Describe duration using months, weeks, days, hours and minutes

Identify and record dates of events on a calendar

## Number

### Year 2

#### IB Phase 2

Learners will develop their understanding of the base 10 place value system and will model, read, write, estimate, compare and order numbers to hundreds or beyond. They will have automatic recall of addition and subtraction facts and be able to model addition and subtraction of whole numbers using the appropriate mathematical language to describe their mental and written strategies. Learners will have an understanding of fractions as representations of whole-part relationships and will be able to model fractions and use fraction names in real-life situations.

#### Conceptual Understandings IB2

The base 10 place value system is used to represent numbers and number relationships.

Fractions are ways of representing whole- part relationships.

The operations of addition, subtraction, multiplication and division are related to each other and are used to process information to solve problems.

Number operations can be modelled in a variety of ways.

## Learning outcomes

### Place Value

Count by naming numbers in sequences, to and back from 1000, moving from any starting point

Apply place value to partition and rename three-digit numbers

Skip count by twos, fives and tens starting from zero

Recognise, model, read, write and order three-digit numbers

Round numbers to the nearest 10

Estimate up to 20 objects

### Four Operations

Recall addition facts for numbers at least to at least 20.

Model addition and subtraction of whole numbers

Represent and solve addition problems (including real life and word) involving 2 digit numbers, using appropriate strategies

Represent and solve subtraction problems (including real life and word) involving 2 digit numbers, using appropriate strategies

Model multiplication and division using groups and/or arrays

Recognise and represent division as grouping into equal sets and solve simple problems using these representations

Use estimation to check reasonableness of answers to calculations

## Fractions

Find equal parts of shapes and collections

Use the language of fractions, for example, half, whole, equal