### MYP Unit Planner

**Teacher(s)**  FARIDAH BT ABDULLAH  
**Subject group and discipline**  MATHEMATICS

<table>
<thead>
<tr>
<th>Unit title</th>
<th>Whole numbers &amp; Integers</th>
<th>MYP year</th>
<th>1</th>
<th>Unit duration (hrs)</th>
<th>5WEEKS</th>
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**Inquiry: Establishing the purpose of the unit**

<table>
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<tr>
<th>Key concept</th>
<th>Related concept(s)</th>
<th>Global context</th>
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<tbody>
<tr>
<td>Logic</td>
<td>Quantity</td>
<td>Personal and cultural expression</td>
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<td></td>
<td>Simplification</td>
<td>- explores on belief and value</td>
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**Statement of inquiry**

Effective logic develops through simplification on quantity helps students to build their thinking skills.

**Inquiry questions**

**Factual** - What is logic?  
What makes logic important?

**Conceptual** - How does logic help simplification?

**Debatable** - Does logic important in decision-making?
### Objectives

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<th>Making board game:</th>
<th>Summative assessment</th>
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<td>Objective A: Knowing and understanding  &lt;br&gt;i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations  &lt;br&gt;ii. apply the selected mathematics successfully when solving problems  &lt;br&gt;iii. solve problems correctly in a variety of contexts.</td>
<td>Outline of summative assessment task(s) including assessment criteria:  &lt;br&gt;G – Goal: The goal is to design a child educational board game.  &lt;br&gt;R – Role: You are as a child's game designer.  &lt;br&gt;A – Audience: The audience is the CEO of your company.  &lt;br&gt;S – Situation: The situation is the lack of educational games for children in market nowadays. It is your responsibility to design a board game that can compete with other games in market.  &lt;br&gt;P – Produce: You will produce board game in order to satisfy the audience and client's need.  &lt;br&gt;S – Standard: Your work will be judged by Criterion A (i, ii, iii) and Criterion C (i, ii, iv).</td>
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### Approaches to learning (ATL)

| Thinking skills: Propose and evaluate a variety of solutions.  <br>Research skills: Seek a range of perspectives from multiple and varied sources.  <br>Self-management skills: Demonstrate persistence and perseverance. | Relationship between summative assessment task(s) and statement of inquiry:  <br>By completing this task, students will be able to explore their beliefs, values and logical thinking by incorporating operations and computations. |
### Action: Teaching and learning through inquiry

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<th>Content</th>
<th>Learning process</th>
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<td><strong>1. Whole numbers</strong></td>
<td><strong>Learning experiences and teaching strategies</strong></td>
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| 1.1 Understand concept of whole numbers. | WEEK 1  
A) Teacher explains the meaning of command terms (select, apply and solve) to students where they should choose from a list or group, use knowledge and understanding in response to a given situation or real circumstances and obtain the answer(s) using numerical methods. Students work in Think-Pair-Share activity to gain idea.  
B) Students explore to:  
i. Count, read and write whole numbers.  
i. Identify place value and value of each digit in whole numbers.  
i. Round whole numbers.  
v. Add whole numbers.  
v. Solve problems involving addition of whole numbers.  
v. Subtract whole numbers.  
vii. Solve problems involving subtraction of whole numbers.  
C) Students express their understanding and observations in journal entries. |
| 1.2 Perform computations involving addition and subtraction of whole numbers to solve problems. |  
1.3 Perform computations involving multiplication and division of whole numbers to solve problems.  
1.4 Perform computations involving combined operations of addition, subtraction, multiplication and division of whole numbers to solve problems. |
| 6. Integers                  | **WEEK 2**  
A) Teacher explains the meaning of command terms (use and organize) to students where they should apply knowledge to put theory into practice and put information into a proper order using Think-Pair-Share.  
B) Students explore to:  
i. Multiply two or more whole numbers.  
i. Solve problems involving multiplication of whole numbers.  
i. Divide a whole number by a smaller whole number.  
v. Solve problems involving division of whole numbers. |
B) Students work in group to perform cooperative learning and express their feeling in journal entries.

WEEK 3
A) Students explore to:
   i. Perform computations involving any combination of addition, subtraction, multiplication and division of whole numbers, including the use of brackets.
   ii. Solve problems involving any combination of addition, subtraction, multiplication and division of whole numbers, including the use of brackets.

B) Students work in group to perform cooperative learning and then present their finding.

C) Students write their observation in journal entries.

WEEK 4
A) Students explore to:
   i. Read and write integers.
   ii. Represent integers on number lines.
   iii. Compare the values of two integers.
   iv. Arrange integers in order.
   v. Write positive or negative numbers to represent word descriptions.

B) Students produce a Timeline to represent their understanding.

WEEK 5
A) Teacher reminds the meaning of command terms (select, apply, solve, use and organize) to students.

B) Students explore to:
   i. Add integers.
   ii. Solve problems involving addition of integers.
iii. Subtract integers.
iv. Solve problems involving subtraction of integers.

C) Students perform a work group. They write the observation in journal entries.

**Formative assessment**
1. Think-Pair-Share
   Students are first to think, then discuss their thought with a partner and finally share with the entire group.
2. Journal entries
   Students reflect their studies by writing a journal.
3. Presentations
   Students present their finding according to their own creativity.
4. Group work
   Students discuss and solve the problems.

**Differentiation**
1. Students are grouped.
2. Students are paired.

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**Resources**
Books, Internet, Personal Experience, sample of Board games, Journal Entries

**Reflection: Considering the planning, process and impact of the inquiry**

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<th>Prior to teaching the unit</th>
<th>During teaching</th>
<th>After teaching the unit</th>
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<td>Students have learnt numbers.</td>
<td>Some difficulties that I encountered while completing the unit was students could not incorporate conceptual understanding to learning. They also did not understand the purpose of Inquiry Questions.</td>
<td>The summative assessment provided sufficient levels of achievement to students. It allowed students to think, make research and plan their project in order to fulfill the Criterion.</td>
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<td>Students also have experience in computations involving numbers.</td>
<td>Skills such as communication skills needs more practice.</td>
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<td>Inquirer attribute will be developed among students throughout the unit.</td>
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<td>Teacher will consider the ATL to plan the next unit. Students may get involved in the next planning.</td>
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<tr>
<td>Students show their skills in artistry.</td>
<td>Peer Assessment, Collaborative Work and Reflective Journal are proved useful in class and its use should be continued. I can scaffold learning for students who need more guidance by conducting more meaningful activities and engage students to learning by Collaborative Work.</td>
<td>It was surprising when some students could come out with creative Board Games as their summative assessments. In future, we can work with Arts Department to train students to produce more creative Board Games.</td>
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