



## Midterm Contents: Semester 2, 2019

Ongkharak Demonstration School

Mathayom 5/4

Monday 2<sup>nd</sup> and Wednesday 4<sup>th</sup> and Friday 6<sup>th</sup> December, 2019

<p><b>1. กลุ่มสาระการเรียนรู้ภาษาไทย</b></p> <p>★ <b>ภาษาไทยพื้นฐาน</b></p> <p>หลักภาษาและการใช้ภาษา</p> <ul style="list-style-type: none"><li>- การฟังและการอ่านให้เกิดวิจารณ์ญาณ</li><li>- เรียนรู้ลักษณะคำประพันธ์ประเภทโคลง</li><li>- เรียนรู้ลักษณะคำประพันธ์ประเภทร่าย</li></ul> <p>วรรณคดีและวรรณกรรม</p> <ul style="list-style-type: none"><li>- ลิลิตตะเลงพ่าย</li></ul>	<p><b>3. กลุ่มสาระการเรียนรู้วิทยาศาสตร์</b></p> <p>★ <b>Science</b></p> <ul style="list-style-type: none"><li>- Gravitational field</li><li>- Electric field</li><li>- Magnetic field</li><li>- The advantage of magnetic field</li><li>- Nuclear force</li></ul> <p>★ <b>Physics</b></p> <p><b>Unit 1 – Electrostatics</b></p> <p>Electric Charge, Coulomb's Law, Electric Field, Electric Potential, Electrical Potential Energy, Potential Difference, Voltage, Capacitors</p> <p><b>Description</b></p> <p>The examination will contain the following question types: Short answer questions in which students must show working, Drawing and interpreting graphs, Matching Questions: Vocabulary Based. The questions will cover a range of difficulty from easy to difficult. Learning Physics is a cumulative process. Knowledge and mastery of previous content is important. Therefore approximately 20-30% of the content for this Midterm Examination will be from material learned during first term, and 70-80% of the exam content will come from material learned during second term</p> <p>★ <b>Chemistry</b></p> <p><b>Unit 1 – Acids and Bases</b></p> <p>Properties of Acids and Bases, Arrhenius Acids, Bronstead-Lowry Acids, Lewis Acids, Acid-Base Reactions, Acids and Bases in Aqueous Solutions, pH and Acid Strength, Determining pH and Titrations</p>
<p><b>2. กลุ่มสาระการเรียนรู้คณิตศาสตร์</b></p> <p>★ <b>Mathematics</b></p> <p><b>Solving Problems with solution</b></p> <ul style="list-style-type: none"><li>Arithmetic Progression (A.P)</li><li>Geometric Progression (G.P)</li><li>Finding the general term</li><li>Limit of sequence</li><li>Limit of series</li></ul> <p><b>Word Problems/Application of Arithmetic and Geometric Progressions and Series</b></p> <p>★ <b>Additional Mathematics</b></p> <p><b>Unit 1 – Complex Numbers</b></p> <p>Properties of Complex Numbers, Operations with Complex Numbers, Polar Form of Complex Numbers, Roots of Complex Numbers, Graphs and Argand Diagrams of Complex Numbers, De Moivre's Theorem of Complex Numbers</p> <p><b>Description</b></p> <p>The examination will contain short answer questions in which students must show working for each question. The question types will include: 'Skills-based Problems' and 'Word/Application Problems'. There will be a range of difficulty in the questions, from easy to difficult. Learning Mathematics is a cumulative process. Knowledge and mastery of previous content is important. Therefore approximately 20-30% of the content for this Midterm Examination will be from material learned during first term, and 70-80% of the exam content will come from material learned during second term.</p>	

### 3. กลุ่มสาระการเรียนรู้วิทยาศาสตร์ (ต่อ)

#### ★ Chemistry

##### Description

The examination will contain the following question types: Short answer questions in which students must show working, Short answer questions in which students must write explanations, Matching Questions: Vocabulary Based. The questions will cover a range of difficulty from easy to difficult. Learning Chemistry is a cumulative process. Knowledge and mastery of previous content is important. Therefore approximately 20-30% of the content for this Midterm Examination will be from material learned during first term, and 70-80% of the exam content will come from material learned during second term.

#### ★ Biology

- Unicellular organism digestive system
- Human digestive system
- Animal digestive system
- Absorption of the digestive system
- Unicellular organisms gas exchange/respiratory system
- Human respiratory system

### 4. กลุ่มสาระการเรียนรู้สังคมศึกษา ศาสนาและวัฒนธรรม

#### ★ Social Studies

##### Topic 1 – Economics

**Key Vocabulary** – Supply, demand, opportunity cost, scarce, households, microeconomics, macroeconomics, inflation, deflation, dumping, balance of payments, infant industries, strategic industries, speculation, GDP, labour, production, efficiency, mobility, capacity, socialism, capitalism and mixed economies.

**Description** – There will be a section on selecting the best answer from a multiple choice options. There will be a section on using the vocabulary to complete sentences. There will be a section on describing the vocabulary. There will be a section on completing diagrams for the above vocabulary. There will be a section on writing a short essay.

#### ★ History

1. World War I
2. World War II
3. The Cold War

### 5. กลุ่มสาระการเรียนรู้ภาษาต่างประเทศ

#### ★ English

##### Vocabulary (Unit 4)

You'll need to

- recognize various marketing-related vocabulary items in a text.
- match words and phrases to correct meanings
- choose the appropriate vocabulary items to complete sentences
- write original sentences using appropriate vocabulary items correctly

##### Grammar (Unit 4)

You'll need to

- recognize the *passive with preparatory there* structure in a text
- recognize the meaning/function of this grammatical construction
- complete gapfills to show accurate use of the *passive with preparatory there*
- Write original sentences using this structure based on prompts