

## **Cambridge IGCSE Physics Syllabus Class 1B September 2018- June 2019**

### **Goals:**

Cambridge IGCSE Physics is accepted by universities and employers as proof of essential knowledge and ability. As well as a subject focus, the Physics syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study and everyday life.

### **Material that will be covered in the 2018-2019 school year:**

1. General physics
  - 1.1 Length and time
  - 1.2 Motion
  - 1.3 Mass and weight
  - 1.4 Density
  - 1.5 Forces
  - 1.6 Momentum
  - 1.7 Energy, work and power
  - 1.8 Pressure
2. Thermal physics
  - 2.1 Simple kinetic molecular model of matter
  - 2.2 Thermal properties and temperature
  - 2.3 Thermal processes
3. Properties of waves, including light and sound
  - 3.1 General wave properties
  - 3.2 Light
  - 3.3 Electromagnetic spectrum
  - 3.4 Sound

### **Assessment:**

During the school year, there will be homework assignments, lab experiments, and quizzes. The final test will be administered by Cambridge and will be comprised of 3 parts:

- 40 Multiple Choice questions (30% of final grade)
- Short answer questions (50% of final grade)
- Practical assessment (20%)

## **Cambridge IGCSE Physics Syllabus Class 1C**

### **September 2018- June 2019**

#### **Goals:**

Cambridge IGCSE Physics is accepted by universities and employers as proof of essential knowledge and ability. As well as a subject focus, the Physics syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study and everyday life.

#### **Material that will be covered in the 2018-2019 school year:**

1. General physics
  - 1.1 Length and time
  - 1.2 Motion
  - 1.3 Mass and weight
  - 1.4 Density
  - 1.5 Forces
  - 1.6 Momentum
  - 1.7 Energy, work and power
  - 1.8 Pressure
2. Thermal physics
  - 2.1 Simple kinetic molecular model of matter
  - 2.2 Thermal properties and temperature
  - 2.3 Thermal processes
3. Properties of waves, including light and sound
  - 3.1 General wave properties
  - 3.2 Light
  - 3.3 Electromagnetic spectrum
  - 3.4 Sound

#### **Assessment:**

During the school year, there will be homework assignments, lab experiments, and quizzes. The final test will be administered by Cambridge and will be comprised of 3 parts:

- 40 Multiple Choice questions (30% of final grade)
- Short answer questions (50% of final grade)
- Practical assessment (20%)

## **Cambridge IGCSE Physics Syllabus Class 2B**

### **September 2018- June 2019**

#### **Goals:**

Cambridge IGCSE Physics is accepted by universities and employers as proof of essential knowledge and ability. The Physics syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study and everyday life.

#### **Material that will be covered in the 2018-2019 school year:**

1. General physics
  - Forces and moments
  - Momentum
  - Energy, work and power
  - Pressure
2. Thermal physics
  - Simple kinetic molecular model of matter
  - Thermal properties and temperature
  - Thermal processes
3. Properties of waves, including light and sound
  - General wave properties
  - Light
  - Electromagnetic spectrum
  - Sound
4. Electricity and magnetism
  - Simple phenomena of magnetism
  - Electrical quantities
  - Electric circuits
  - Dangers of electricity
  - Electromagnetic effects
5. Atomic physics
  - The nuclear atom
  - Radioactivity

#### **Assessment:**

During the school year, there will be homework assignments, lab experiments, and quizzes. The final test will be administered by Cambridge and will be comprised of 3 parts:

- 40 Multiple Choice questions (30% of final grade)
- Short answer questions (50% of final grade)
- Practical assessment (20%)

## **Cambridge IGCSE Physics Syllabus Class 2C September 2018- June 2019**

### **Goals:**

Cambridge IGCSE Physics is accepted by universities and employers as proof of essential knowledge and ability. The Physics syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study and everyday life.

### **Material that will be covered in the 2018-2019 school year:**

1. General physics
  - Forces and moments
  - Momentum
  - Energy, work and power
  - Pressure
2. Thermal physics
  - Simple kinetic molecular model of matter
  - Thermal properties and temperature
  - Thermal processes
3. Properties of waves, including light and sound
  - General wave properties
  - Light
  - Electromagnetic spectrum
  - Sound
4. Electricity and magnetism
  - Simple phenomena of magnetism
  - Electrical quantities
  - Electric circuits
  - Dangers of electricity
  - Electromagnetic effects
5. Atomic physics
  - The nuclear atom
  - Radioactivity

### **Assessment:**

During the school year, there will be homework assignments, lab experiments, and quizzes. The final test will be administered by Cambridge and will be comprised of 3 parts:

- 40 Multiple Choice questions (30% of final grade)
- Short answer questions (50% of final grade)
- Practical assessment (20%)