



**Pakistan Urdu School- Kingdom of Bahrain**  
**Curriculum Implementation Plan for 2018-2019**

**SUBJECT- PHYSICS**

**Grade IX**

| <b>UNIT 1 – PHYSICAL QUANTITIES AND MEASUREMENT</b> |   |               |  |   |               |
|---|---|---------------|--|---|---------------|
| No.   | Month/Week  | Starting Date | Topics from Textbook or Others                           | National Curriculum References  | Total Periods |
| 1.  | <b>2<sup>nd</sup> , 3<sup>rd</sup> , 4<sup>th</sup><br/>week of APRIL</b> | 9.4.18        | Introduction to physics                                  | <b>Standard 1</b><br>Students will be able to develop a sense of curiosity and wonder about the natural world and demonstrate an increasing awareness that this has lead to new development in science and technology | <b>10</b>     |
| 2.  |   |               | Physical quantities and international system of units    |   |               |
| 3.  |   |               | Prefixes, scientific notation.                           |   |               |
| 4.  |   |               | Measuring instruments – Vernier calipers and screw gauge |   |               |
| 5.  |   |               | Significant figures                                      |   |               |

| <b>UNIT 2 – KINEMATICS</b> |   |               |                                |   |               |
|----------------------------|---|---------------|--------------------------------|---|---------------|
| No.                        | Month/Week  | Starting Date | Topics from Textbook or Others | National Curriculum References  | Total Periods |
| 1.                         | <b>1<sup>st</sup> , 2<sup>nd</sup> , 3<sup>rd</sup><br/>week of may</b> | 1.5.18        | Rest and motion and its types  | <b>Standard 1</b><br>Students will be able to develop a sense of curiosity and wonder about the natural world and demonstrate an increasing awareness that this has lead to new development in science and technology | <b>10</b>     |
| 2.                         |   |               | Terms associated with motion   |   |               |
| 3.                         |   |               | Scalars and vectors            |   |               |
| 4.                         |   |               | Graphical analysis of motion   |   |               |
| 5.                         |   |               | Equations of motion            |   |               |
| 6.                         |   |               | Motion due to gravity          |   |               |

**MID TERM EXAM (MAY)****UNIT 3 – DYNAMICS**

| No. | Month/Week  | Starting Date | Topics from Textbook or Others  | National Curriculum References  | Total Periods |
|-----|---|---------------|---------------------------------|---|---------------|
| 1.  | <b>4<sup>th</sup> week of MAY and 1<sup>st</sup> week of JUNE</b> | 27.5.18       | Force , inertia and momentum    | <b>Standard 1</b><br>Students will be able to develop a sense of curiosity and wonder about the natural world and demonstrate an increasing awareness that this has lead to new development in science and technology | <b>10</b>     |
| 2.  |   |               | Newton’s laws of motion         |   |               |
| 3.  |   |               | Law of conservation of momentum |   |               |
| 4.  |   |               | Uniform circular motion         |   |               |
| 5.  |   |               | Friction                        |   |               |

**UNIT 4 – TURNING EFFECT OF FORCES**

| No. | Month/Week   | Starting Date | Topics from Textbook or Others | National Curriculum References  | Total Periods |
|-----|--|---------------|--------------------------------|---|---------------|
| 1.  | <b>4<sup>th</sup> week of AUGUST</b><br><br><b>And</b><br><b>1<sup>st</sup> , 3<sup>rd</sup> week of SEPTEMBER</b> | 28.8.18       | Addition of forces             | <b>Standard 4</b><br>Students will be able to explain and describe the common properties, forms and interactions of energy and matter and their transformations and applications in physical system | <b>12</b>     |
| 2.  |  |               | Resolution of forces           |   |               |
| 3.  |  |               | Moment of a force              |   |               |
| 4.  |  |               | Principle of moments           |   |               |
| 5.  |  |               | Center of mass                 |   |               |
| 6.  |  |               | Couple                         |   |               |
| 7.  |  |               | Equilibrium                    |   |               |

**1<sup>ST</sup> TERM EXAM ( SEPTEMBER )****UNIT 5 – GRAVITATION**

| No. | Month/Week   | Starting Date | Topics from Textbook or Others | National Curriculum References  | Total Periods |
|-----|--|---------------|--------------------------------|---|---------------|
| 1.  | <b>4<sup>th</sup> week of SEPTEMBER<br/>And<br/>1<sup>st</sup> week of OCTOBER</b> | 23.9.18       | Law of gravitation             | <b>Standard 1</b><br>Students will be able to develop a sense of curiosity and wonder about the natural world and demonstrate an increasing awareness that this has lead to new development in science and technology | <b>6</b>      |
| 2.  |  |               | Measurement of earth           |   |               |
| 3.  |  |               | Variation of g with altitude   |   |               |
| 4.  |  |               | Motion of artificial satellite |   |               |

**UNIT 6 – WORK AND ENERGY**

| No. | Month/Week   | Starting Date | Topics from Textbook or Others          | National Curriculum References  | Total Periods |
|-----|--|---------------|---|---|---------------|
| 1.  | <b>2<sup>nd</sup> and 3<sup>rd</sup> week of OCTOBER</b> | 14.10.18      | Work and energy                         | <b>Standard 4</b><br>Students will be able to explain and describe the common properties, forms and interactions of energy and matter and their transformations and applications in physical system | <b>8</b>      |
| 2.  |  |               | Types of energy – kinetic and potential |   |               |
| 3.  |  |               | Forms of energy                         |   |               |
| 4.  |  |               | Interconversion of energy               |   |               |
| 5.  |  |               | Major sources of energy                 |   |               |
| 6.  |  |               | Efficiency and power                    |   |               |

**UNIT 7– PROPERTIES OF MATTER**

| No. | Month/Week  | Starting Date | Topics from Textbook or Others         | National Curriculum References  | Total Periods |
|-----|---|---------------|--|---|---------------|
| 1.  | <b>4<sup>th</sup> week of October and 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> week of NOVEMBER</b> | 28.10.18      | Kinetic molecular model of matter      | <b>Standard 4</b><br><br>Students will be able to explain and describe the common properties, forms and interactions of energy and matter and their transformations and applications in physical system | <b>15</b>     |
| 2.  |   |               | Density                                |   |               |
| 3.  |   |               | Pressure and Atmospheric pressure      |   |               |
| 4.  |   |               | Pressure inside a liquid               |   |               |
| 5.  |   |               | Principle of flotation using up thrust |   |               |
| 6.  |   |               | Elasticity                             |   |               |

**2<sup>ND</sup> TERM EXAM ( NOVEMBER AND DECEMBER)**

**UNIT 8 – THERMAL PROPERTIES OF MATTER**

| No. | Month/Week  | Starting Date | Topics from Textbook or Others         | National Curriculum References  | Total Periods |
|-----|---|---------------|--|---|---------------|
| 1.  | <b>1<sup>st</sup>, 2<sup>nd</sup> week of JANUARY</b> | 2.1.19        | Temperature and heat                   | <b>Standard 4</b><br><br>Students will be able to explain and describe the common properties, forms and interactions of energy and matter and their transformations and applications in physical system | <b>8</b>      |
| 2.  |   |               | Thermometer                            |   |               |
| 3.  |   |               | Specific heat capacity                 |   |               |
| 4.  |   |               | Latent heat of fusion and vaporization |   |               |
| 5.  |   |               | Thermal expansion                      |   |               |
| 6.  |   |               | Evaporation                            |   |               |

| UNIT 9 – TRANSFER OF THERMAL ENERGY |   |               |   |   |               |
|-------------------------------------|---|---------------|---|---|---------------|
| No.                                 | Month/Week  | Starting Date | Topics from Textbook or Others  | National Curriculum References  | Total Periods |
| 1.                                  | 3 <sup>rd</sup> , 4 <sup>th</sup> week of JANUARY | 20.1.19       | Three process of heat transfer- conduction , convection and radiation | <b>Standard 4</b><br>Students will be able to explain and describe the common properties, forms and interactions of energy and matter and their transformations and applications in physical system | <b>6</b>      |
| 2.                                  |   |               | Thermal conductivity  |   |               |
| 3.                                  |   |               | Convection currents   |   |               |
| 4.                                  |   |               | Emission and absorption   |   |               |
| 5.                                  |   |               | Greenhouse effect   |   |               |
| <b>REVISION</b>                     |   |               |   |   |               |

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