

ANNUAL CURRICULUM PLAN :2020-21
PHYSICS — Class 11

Education Vision: Equipping students for higher education and develop among students, sensitivity to contribute to the betterment of society through knowledge in Physics

April to September

| <u>CHAPTER NAME.</u> | <u>TRANSCATION STRATEGIES AND INNOVATIVE PEDAGOGY</u> | <u>LEARNING OUTCOMES</u> | <u>CORE SKILLS/ART INTEGRATION/ INTERDISCIPLINARY LINKAGE</u> |
|---|---|--|--|
| <p>Unit 1 Physical World and Measurement</p> <p>Ch 1 Physical world</p> <p>Ch 2 Units and Measurement</p> <p><i>Need for measurement:</i> Units of measurement; systems of units; SI units, fundamental and derived units. Length, mass and time measurements; accuracy and precision of measuring instruments; errors in measurement;</p> <p>(3)Dimensions of physical quantities, dimensional analysis and its applications.</p> | <p>(1) To measure diameter of a small spherical/cylindrical body using Vernier callipers.</p> <p>(2) To measure internal diameter and depth of a given beaker/calorimeter using Vernier callipers and hence find its volume.</p> <p>(3) To measure diameter of a given wire using screw gauge.</p> <p>(4) To measure thickness of a given sheet using screw gauge.</p> <p>(5) To measure volume of an irregular lamina using screw gauge.</p> <p>(6) To determine radius of curvature of a given spherical surface by a spherometer.</p> <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based | <p>Learners will be able to understand Scope and application of Physics for the betterment of society.</p> <p>Learners will be able to understand the Need of measurement along with basics of fundamental and derived units.</p> <p>Learners will be able to understand the significance and importance of dimensional analysis of any physical quantity.</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, |

| | | | |
|--|--|--|---|
| | <p>learning</p> <ul style="list-style-type: none">➤ Computational thinking➤ Documented problem solving➤ Ppt➤ You tube | | <p>small demonstrations , activities to explain scientific concept in the chapter.</p> <ul style="list-style-type: none">➤ Visit to science centre's➤ Participate in field trips.,➤ Participate in science workshops and exhibitions.➤ Develop hands on activities related to the topic.➤ Measurements method used in sikkim <ul style="list-style-type: none">• Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|--|--|--|---|

| | | | |
|--|---|--|---|
| <p>Unit 2 Kinematics</p> <p>Ch 3 Motion in a straight Line</p> <p>(1) straight Line Frame of reference, Motion in a straight line: Position-time graph, speed and velocity.</p> <p>(2) Uniform and non- uniform motion, average speed and instantaneous velocity. Uniformly accelerated motion, velocity-time and position- time graphs.</p> <p>(3) Relations for uniformly accelerated motion (graphical treatment).</p> | <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts • Connection creation and explanation. <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving ➤ Ppt ➤ You tube | <p>Learners will be able to understand the term motion as a relative term and classification of motion.</p> <p>Learners will be able to understand the significance of three equations of motion in our daily life along with it mathematical calculus analysis.</p> <p>Students learn about the concept of relative motion and hence can solve practical problems in day to day life.</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept in the chapter. ➤ Visit to science centre's ➤ Participate in field trips., |
|--|---|--|---|

| | | | |
|--|--|--|--|
| | | | <ul style="list-style-type: none">➤ Participate in science workshops and exhibitions.➤ Develop hands on activities related to the topic.• Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|--|--|--|--|

| | | | |
|--|--|--|---|
| <p>Unit 3 Laws of Motion</p> <p>Ch 5 Laws of Motion (3)Scalar and Vector products of Vectors. Motion in a plane. Cases of uniform velocity and uniform acceleration – projectile motion. Uniform circular motion.</p> | <p>(8)To study the relationship between force of limiting friction and normal reaction and to find the coefficient of friction between a block and a horizontal surface.</p> | <p>Learners will be able to understand the Concept of force along all the three Newton’s laws of motion. Learners will be able to understand the Concept of dynamics of circular motion. The student will come to know the need of banking of roads in practical life. Students learn about the role of friction in life and its advantages and disadvantages.</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept in the chapter. ➤ Visit to science centre’s ➤ Participate in field trips., |
|--|--|--|---|

| | | | |
|--|--|--|---|
| <p>(1) Intuitive concept of force. Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Impulse momentum theorem</p> | <p>(9) To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination (θ) by plotting graph between force and $\sin \theta$.</p> <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts <p>Connection creation and explanation</p> | | <ul style="list-style-type: none"> ➤ Participate in science workshops and exhibitions. ➤ Develop hands on activities related to the topic. ➤ Roads construction in sikkim <ul style="list-style-type: none"> • Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|--|--|--|---|

(2) Static and kinetic friction, laws of friction, rolling friction, lubrication. Angle of friction, angle of repose, acceleration when a body slides down an inclined plane

(3) *Dynamics of uniform circular motion*: Centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road).

| | | | |
|---|--|--|--|
| <p>Unit 4 <u>Work , energy, power</u> <u>Ch:6Work , energy,power</u></p> | <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts • Connection creation and explanation. <ul style="list-style-type: none"> ➤ Ppt ➤ You tube | | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept in the chapter. ➤ Visit to science centre's ➤ Participate in field trips., |
|---|--|--|--|

| | | | |
|---|--|---|---|
| <p>(1)Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. (2)Notion of potential energy, potential energy of a spring, conservative forces; conservation of mechanical energy (kinetic and potential energies); non-conservative forces; motion in a vertical circle, elastic and inelastic collisions in one and two dimensions.</p> | | <p>Learners will be able to understand the Basic concept of work done along with its mathematical analysis and Classification of work. Learners will be able to understand the Concept of mechanical energy, different forms energy and its conservation with necessary mathematical analysis. Learners will be able to understand the Mechanical power along with its Practical and SI units. Student is able to differentiate between elastic and inelastic collisions.</p> | <ul style="list-style-type: none"> ➤ Participate in science workshops and exhibitions. ➤ Develop hands on activities related to the topic. <ul style="list-style-type: none"> • Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|---|--|---|---|

October -February

Unit 5

Motion of system of particles and rigid body

Ch7 Rotational motion

(1) Centre of mass of a two-particle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of uniform rod.

(2) Moment of a force, torque, angular momentum, conservation of angular momentum with some examples.

- Discussion and Questioning
- Summarization
- Prediction
- Visualization
- Activation and use of prior knowledge
- Thinking
- Understanding when comprehension breaks down
- Personal responses to texts

Connection creation and explanation

Learners will be able to understand the concept of centre of mass and centre of gravity of a body.

Learners will be able to understand the Concept of Rotational Dynamics and equations of motion for rotating body.

Learners will be able to understand the Analogy between Kinematics and Rotational Dynamics.

- **Core Skills**
Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building.
- **Art Integration**
 - Read science corner in newspaper and make clippings of news related to latest developments in science and technology
 - Read science journals
 - See science programmes on TV
 - Participate in discussions, debates, talk shows, science quiz
 - Drawing, music
 - Make projects, small demonstrations , activities to explain scientific concept in the chapter.
 - Visit to science centre's
 - Participate in field trips.,

- Participate in science workshops and exhibitions.
- Develop hands on activities related to the topic.

- **Interdisciplinary Linkage**

Mathematics, Chemistry, Biology, Geology, Medicine.

October to February

| | | | |
|--|--|--|--|
| <p>Ch 7 System of Particles and Rigid Bodies</p> <p>(Cont.) (3)Equilibrium of rigid bodies, rigid body rotation and equation of rotational motion, comparison of linear and rotational motions; moment of inertia, radius of gyration. Values of M.I. for simple geometrical objects (no derivation). Statement of parallel and perpendicular axes theorems and their applications.</p> | <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving ➤ Ppt ➤ You tube | <p>Students know about moment of inertia and the application to find the moment of inertia for various bodies.</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept in the chapter. ➤ Visit to science centre's ➤ Participate in field trips., |
|--|--|--|--|

Unit 6 Gravitation

- Participate in science workshops and exhibitions.
- Develop hands on activities related to the topic.

- **Interdisciplinary Linkage**

Mathematics, Chemistry, Biology, Geology, Medicine.

- **Core Skills**

Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building.

- **Art Integration**

- Read science corner in newspaper and make clippings of news related to latest developments in science and technology
- Read science journals
- See science programmes on TV
- Participate in

discussions,
debates, talk
shows, science
quiz

- Drawing, music
- Make projects,
small
demonstrations ,
activities to explain
scientific concept
in the chapter.
- Visit to science
centre's
- Participate in field
trips.,
- Participate in
science workshops
and exhibitions.
- Develop hands on
activities related to
the topic.
- Latitudes and
longitudes in
sikkim

- **Interdisciplinary Linkage**

Mathematics, Chemistry, Biology,
Geology, Medicine.

| | | | |
|--|--|---|--|
| <p>Ch 8 Gravitation</p> <p>Newton's laws of gravitation, acceleration due to gravity, variation of acceleration due to gravity with depth and height,</p> | <p>(10) To determine the mass of two different objects using a beam balance.</p> | <p>Learners will be able to understand Concept of gravitational force between two bodies and its conservative nature.</p> <p>Learners will be able to understand the Concept of variation of acceleration due</p> | |
|--|--|---|--|

| | | | |
|---|--|--|--|
| <p>energy; gravitational potential. Escape velocity, orbital velocity of a satellite. Geostationary satellites.</p> | <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts • Connection creation and explanation. <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving ➤ Ppt ➤ You tube | <p>to gravity with height and depth. Learns will know about gravitational potential energy , gravitational potential, Time period , orbital radius of satellites, escape velocity.</p> | |
|---|--|--|--|

Unit 7 Properties of Bulk Matter

Ch 9 Mechanical Properties of Solids

Elastic behaviour, stress strain relationship, hookes law, young's modulus, bulk modulus, shear modulus of rigidity, poisons ratio, elastic energy.

(11) To find the force constant of a helical spring by plotting a graph between load and extension.

Learners will be able to understand Practicality of different types of Elastic modulli and Relation between stress and strain.

To make the learners to understand the concept of elasticity and rigidity of a body with stress- strain analysis and applying it to solve real life problems.

- **Core Skills**
Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building.
- **Art Integration**
 - Read science corner in newspaper and make clippings of news related to latest developments in science and technology
 - Read science journals
 - See science programmes on TV
 - Participate in discussions, debates, talk shows, science quiz
 - Drawing, music
 - Make projects, small demonstrations , activities to explain scientific concept in the chapter.
 - Visit to science centre's

| | | | |
|---|---|---|--|
| | | | <ul style="list-style-type: none"> ➤ Participate in field trips., ➤ Participate in science workshops and exhibitions. ➤ Develop hands on activities related to the topic. ➤ Bridge construction in Sikkim considering elastic properties of materials. <ul style="list-style-type: none"> • Interdisciplinary Linkage <p>Mathematics, Chemistry, Biology, Geology, Medicine.</p> |
| <p>Ch 10 Mechanical Properties of Fluids</p> <p>(1) Pressure due to a fluid column; Pascal’s law and its applications (hydraulic lift and hydraulic brakes).</p> <p>(2) Effect of gravity on fluid pressure. Viscosity, Stokes’ law, terminal velocity, Reynold’s number,</p> | <p>(13) To determine the coefficient of viscosity of a given viscous liquid by measuring the terminal velocity of a given spherical</p> | <p>Learners will be able to understand Practicality of Fluid dynamics in real life (Pascal’s Law, Bernoulli’s theorem, Magnus Effect)</p> <p>Learners will be able to understand Concept of surface Tension and Surface</p> | |

| | | | |
|---|--|---|--|
| <p>streamline and turbulent flow. (3)Critical velocity, Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure, application of surface tension ideas to drops, bubbles and capillary rise, action of soap.</p> <p>Ch 11 Thermal Properties of Matter</p> <p>(1)Heat transfer – conduction and thermal conductivity, convection and radiation. Qualitative ideas of Black Body Radiation, , and Green House effect. (2)Heat, temperature, thermal expansion; thermal expansion of solids, liquids, and gases. Anomalous expansion. Specific heat capacity: C_p, C_v – calorimetry; change of state – latent heat. (3)Newton's law of cooling and Stefan's law.</p> | <p>body.</p> <p>(15) To study the relationship between the temperature of a hot body and time by plotting a cooling curve.</p> <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts • Connection creation and explanation. <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations | <p>energy and will be able to relate it with a daily life.</p> <p>Learners will be able to understand the Different methods of heat transfer, Concept of thermal expansion and Laws of cooling.</p> | |
|---|--|---|--|

- | | | | |
|--|---|--|--|
| | <ul style="list-style-type: none">➤ Thinking maps➤ Context based learning➤ Computational thinking➤ Documented problem solving➤ Ppt➤ You tube | | |
|--|---|--|--|

| | | | |
|---|---|---|---|
| <p>Unit 8 Thermodynamics</p> <p>Ch 12 Thermodynamics</p> <p>Thermal equilibrium and definition of temperature (zeroth law of Thermodynamics). Heat, work and internal energy. First law of thermodynamics. Isothermal and adiabatic processes. Second law of thermodynamics: Reversible and irreversible processes. Heat engines, Carnot engines and refrigerators.</p> | <ul style="list-style-type: none"> • Differentiated work sheets • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts • Connection creation and explanation <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving ➤ Ppt ➤ You tube | <p>Learners will be able to understand the Concept of Heat, work and Internal energy of the system.</p> <p>Learners will be able to understand the Principle of Heat Engine and Refrigerator.</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept in the chapter. ➤ Visit to science centre's ➤ Participate in field trips., ➤ Participate in science workshops and exhibitions. ➤ Develop hands on activities related to the topic. • Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|---|---|---|---|

Unit 9 Behavior of Perfect gases and Kinetic Theory of gases

- **Core Skills**

Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building.

- **Art Integration**

- Read science corner in newspaper and make clippings of news related to latest developments in science and technology
- Read science journals
- See science programmes on TV
- Participate in discussions, debates, talk shows, science quiz
- Drawing, music
- Make projects, small demonstrations , activities to explain scientific concept in the chapter.
- Visit to science centre's
- Participate in field trips.,
- Participate in science workshops and exhibitions.
- Develop hands on activities related to the topic.

- **Interdisciplinary Linkage**

Mathematics, Chemistry, Biology, Geology, Medicine.

Ch 13 Kinetic theory of gases

Equation of state of a perfect gas, work done on compressing a gas.

Kinetic energy and temperature; rms speed of gas molecules; degrees of freedom, law of equipartition of energy (statement only) and

- Discussion and Questioning
- Summarization
- Prediction
- Visualization
- Activation and use of prior knowledge
- Thinking
- Understanding when comprehension breaks down
- Personal responses to texts
- Connection creation and explanation.

Learners will be able to understand the Pressure exerted by a gas on the walls of the container.

Learners will be able to understand the Concept and relation between different specific heat capacities. They will be able to apply the law equipartition of energy for monoatomic , diatomic , triatomic gases.

| | | | |
|--|--|---|--|
| <p>application to specific heat capacities of gases; concept of mean free path, Avogadro's number.</p> | | | |
| <p>Unit 10 Oscillations and waves</p> <p>Ch 14 Oscillations Periodic motion, time period, frequency, displacement as a function of time, . Periodic functions. Simple harmonic motion (SHM) and its equation; phase;</p> | <p>16)Using a simple pendulum, plot L-T and L-T² graphs. Hence find the effective length of a second's pendulum using appropriate graph.</p> <ul style="list-style-type: none"> • Discussion and Questioning • Summarization • Prediction • Visualization • Activation and use of prior knowledge • Thinking • Understanding when comprehension breaks down • Personal responses to texts | <p>Learners will be able to understand the basic concept of generation of waves along with its Classification and Mathematical analysis and SHM. They will be able to distinguish between harmonic and non harmonic functions.</p> <p>Learners will be able to geometrically explain the concept of SHM and hence find velocity , acceleration, total energy and displacement in SHM.</p> <p>Learners will be able to understand the Concept of Different forms of energy possessed by a body executing SHM with its mathematical analysis.</p> <p>Learners will be able to</p> | <ul style="list-style-type: none"> • Core Skills Self awareness, Decision making, observation skills, Analytical skills, Problem solving, Critical thinking, logical thinking, Application, Team building. • Art Integration <ul style="list-style-type: none"> ➤ Read science corner in newspaper and make clippings of news related to latest developments in science and technology ➤ Read science journals ➤ See science programmes on TV ➤ Participate in discussions, debates, talk shows, science quiz ➤ Drawing, music ➤ Make projects, small demonstrations , activities to explain scientific concept |

| | | | |
|---|---|--|---|
| <p>oscillations of a spring – restoring force and force constant; energy in SHM – kinetic and potential energies; simple pendulum – derivation of expression for its time period; free, forced and damped oscillations (qualitative ideas only), resonance.</p> | <ul style="list-style-type: none"> • Connection creation and explanation. ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving | <p>understand the Concept of Resonance, free oscillations and forced oscillations.</p> | <p>in the chapter.</p> <ul style="list-style-type: none"> ➤ Visit to science centre's ➤ Participate in field trips., ➤ Participate in science workshops and exhibitions. ➤ Develop hands on activities related to the topic. ➤ Architecture in sikkim <ul style="list-style-type: none"> • Interdisciplinary Linkage Mathematics, Chemistry, Biology, Geology, Medicine. |
|---|---|--|---|

| | | | |
|---|--|---|--|
| <p>Ch 15 Waves Wave motion. Longitudinal and transverse waves, speed of wave motion. Displacement relation for a progressive wave. Velocity of transverse waves in a string, Newtons formula to find velocity of sound , Laplace correction Principle</p> <p>of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics. Beats. Doppler effect.</p> | <p>17)To study the relation between frequency and length of a given wire under constant tension using sonometer.</p> <ul style="list-style-type: none"> ➤ Hands on learning ➤ Instructional conversations ➤ Thinking maps ➤ Context based learning ➤ Computational thinking ➤ Documented problem solving | <p>Learners will be able to understand the Mathematical analysis of waves along its basic parameters (Amplitude , Frequency and Phase) They would be able polt transverse and longitudinal waves and also distinguish between them . Learners know to determine speed of transverse and longitudinal waves.</p> <p>Learners will be able to understand the concept of reflection of waves along with concept of harmonics.</p> <p>Learners will be able to understand the Practicality in variation in frequency of sound due to relative motion between source and observer (Doppler’s Effect)</p> | |
| <p>REVISION AND EXAMS</p> | | | |