CURRICULUM PLAN 2080 SCIENCE GRADE VIII					
FIRST TERMINAL EXAMINATION					
Unit	**Topics**	**Working hrs**	**Teaching methods**	**Teaching materials**	**Evaluation& technique tools**
1	**Scientific Learning** • Practical work of science • Precaution in science lab • Scientific research and report writing	10	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Measuring cylinder, pan balance, spring balance, weights, Chemicals, indicators, etc.	1. Class Test 2. Homework 3. Viva 4. Judgement of problem solving 5. Report writing
2	**Information and Communication Technology** • Introduction of Information and communication technology(ICT) • Concept of some technological devices(smartphone, printer, projector, scanner, computer, photocopy etc.)	10	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Computer, Internet, Smartphone, Printer, Scanner, projector, etc.	1. Class Test 2. Homework 3. Viva 4. Practical and project work
3	**Cell** • Functions of cell organelles • Differences between plant cell and animal cell • Interrelationship between cells, tissue and organs. • Unicellular organisms (Amoeba, virus, bacteria and Fungi): Introduction, advantages and disadvantages	15	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Model of plant cell and animal cell, Charts, microscope, permanent slide, etc.	1. Class Test 2. Homework 3. Viva 4. Drawing 5. Report writing
6	**a. Force and Motion** • Introduction to motion and rest • Introduction to relative velocity, average velocity • Introduction of acceleration **b. Lever** • Introduction of lever and its types, principle of lever • Mechanical advantage, velocity ratio and efficiency with Numerical problem.	6	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Problem solving	Toy cars, stop watch, etc. Sample of lever etc.	1. Unit test 2. Project work 3. Viva 4. Practical file 5. Problem solving
10	**Matter** • Atomic structure of elements (Upto atomic no 20) • Valency of elements (upto atomic no 20) • Concept of modern periodic table and modern periodic law • Position of first twenty elements in modern periodic table • Number of shell, valency, atomic size and metallic character in group and period. • Molecular formula of different compounds	13	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Drawing	Chart of modern Periodic table, Atomic model, etc.	1. Class Test 2. Homework 3. Viva 4. Drawing 5. Report writing

	• Molecular weight and calculation of molecular weight • Simple word equation and balanced formula equation				
12	**The earth and the universe** **Minerals** • Introduction of minerals and its types • Properties and uses of minerals • Some important metals found in Nepal	3	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Sample of minerals, metals found in Nepal, steel, bronze, etc. Chart, videos, etc.	1. Class Test 2. Homework 3. Viva 4. Project work and Report writing
	Revision	53			
	MID TERMINAL EXAMINATION				
2	**Information and Communication Technology** • Search Engine, email, website, ISP, etc. • Social networking sites: Introduction and application • Cyber crime, cyber crime act in Nepal, cyber law and Internet Security tactics.	13	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Computer, Internet, Smartphone, Printer, Scanner, projector, etc.	1. Class Test 2. Homework 3. Viva 4. Practical and project work
4	**Biodiversity and the environment** • Introduction and present status of biodiversity in Nepal • Causes of loss of biodiversity • Medicinal plants and their uses • Conservation of biodiversity • Sustainable development and its importance • Sustainable development goals in Nepal	15	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Field visit	Plant, mushroom, charts, flowchart, movies, etc.	1. Class Test 2. Homework 3. Viva 4. Project work and Report writing
7	**Energy in daily life** **a. Heat** • Introduction of heat • Transmission of heat • Structure and function of thermos flask • Green house effect : Causes, effects and prevention **b. Light** • Spherical mirror and its types • Terms related with spherical mirror • Ray diagram in concave and convex mirror • Uses of concave and convex mirror	13	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Problem solving	Solar panel, wind mill model, model of artificial greenhouse, thermos flask, beaker, burner, water, etc. Torch, candle, bulb, concave and convex mirror, plane mirror, Video, etc.	1. Class Test 2. Homework 3. Viva 4. Judgement of problem solving 5. Report writing 6. Drawing

11	**Materials used in daily life** **a. Acid, base and salt** • Introduction of acid, base and salt and their physical and chemical properties • Uses of acid, base and salt • Acid rain: causes, effects and prevention **b. Water** • Differences between hard water and soft water • Caused of hardness of water and types • Removal of hardness of water • Advantages and disadvantages of hard and soft water • Alloy: Introduction. Composition and uses of steel, brass and bronze	10	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Acid, base and salt solution, Indicators, water from river, pond, soap, etc.	1. Class Test 2. Homework 3. Viva 4. Report writing
12	**The earth and the universe** **The universe** • Introduction of universe, Asteroids and comets • Galaxies, constellation, Meteors and meteorites (Introduction, differences and similarities)	3			
	Revision	54			
	SECOND TERMINAL EXAMINATION				
5	**Life process** • Asexual reproduction in plants and animals • Vegetative propagation and its types • Sexual reproduction in plants and animals • Parts of seeds and their functions • Dispersal of seed and ways • Germination of seeds and conditions required	10	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Field visit	Potted plane, heart of hen/goat, potato, fern, charts. Charts, drawings, starch test kit, chemical as KOH, $NaHCO_3$, plastic bag, potted plant, spirit lamp, test tubes, Petri dish, etc.	1. Class Test 2. Homework 3. Viva 4. Judgement of problem solving 5. Report writing
9	**Electricity** • Introduction of electricity and devices used in household wiring (fuse MCB, switch, E.meter) • Functions of live wire, neutral wire and earth wire • Safe connection of electrical circuit • Preparation of electric circuit • Electro billing (How to calculate bill of electricity)	15	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Problem solving	Electronic device of domestic circuit, ammeter, voltmeter, electric circuit, etc	1. Class Test 2. Homework 3. Viva 4. Judgement of problem solving 5. Report writing

12	**The earth and the universe** **History of the earth** • Origin of the earth (hypothesis) • Eras: Duration and evolution of organism	4	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Sample of minerals, metals found in Nepal, steel, bronze, etc. Chart, videos, etc.	1. Class Test 2. Homework 3. Viva 4. Project work and Report writing
	Revision	29			
	ANNUAL EXAMINATION				
2	**Information and Communication Technology** • Introduction of robotics and virtual reality. • Artificial Intelligence and compound computing – Introduction and uses.	7	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Computer, Internet, Smartphone, Printer, Scanner, projector, etc.	1. Class Test 2. Homework 3. Viva 4. Practical and project work
6	**Pressure** • Introduction of pressure and numerical problems related with pressure • Liquid pressure and its characteristics • Atmospheric pressure	4	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Problem solving	Fountain pen, brick, foam, heeled and flat shoes, tin cans, balloons, nails, etc.	1. Unit test 2. Project work 3. Viva 4. Practical file 5. Problem solving
7	**Energy in daily life** **Sound wave** • Sound wave • Terms related with sound wave • Audible sound, infrasonic sound and ultrasonic sound • Intensity of sound and its measurement • Sound pollution: causes, effects and control measures	7	1. Discussion 2. Question answer 3. Practical 4. Demonstration 5. Problem solving	Video, rope, etc.	1. Class Test 2. Homework 3. Viva 4. Judgement of problem solving 5. Report writing 6. Drawing
8	**Magnetism** • Natural and artificial magnetic differences and uses • Molecular theory of magnet • Demagnetization of magnet • Earth magnet and its effects	15	1. Discussion 2. Question answer 3. Practical 4. Demonstration	Permanent Magnet, magnetic compass, dips needle, keeper of iron, etc.	1. Class Test 2. Homework 3. Viva 4. Report writing
	Revision	**33**			