KIDS WORLD SCHOOL, NAGPUR
SESSION – 2026-27
CLASS - IX
SUBJECT – PHYSICS

UNIT		Topic	Sub-Topic	Month		Suggested Ice-Breaking Activity	Teaching Pedagogy	Curricular Goals	Competency	Expected Learning Outcome	Assessment
No.	Name			Starting	Closing						
Ch. 4	Describing Motion	• Motion	*Meaning of motion	April Day 1	August	Students introduce them by telling their names.	*Modeling Instruction *Active Learning *Contextualisation	CG 8 – Explores the nature of Science by doing Science.	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Analyse real-life events and phenomena, and identify the key factors that influence their Behaviour..	

	Describing Motion	Position Distance Displacement	Position Distance Displacement	Day 2		Raise your hand if you have ever ridden a bicycle. These questions help introduce concepts like: • Motion and rest	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Differentiate between distance travelled and displacement, for objects moving in a straight line • Express appropriate SI units	
	Describing Motion	Speed Velocity		Day 3		Pretend to move a finger **slowly then fast**	*Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Define displacement, velocity, speed and velocity. • Express appropriate SI units	

	Describing Motion	Scalar and Vector Quantities		Day 4		Walk **5 steps forward** → discuss **vector** (magnitude + direction) Then say only “5 steps” → discuss **scalar** (only magnitude)	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 8 – Explores the nature of Science by doing Science.	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Formulate hypotheses about scientific phenomena based on prior knowledge and understanding of scientific concepts, theories, laws, and principles	
	Describing Motion	Acceleration		Day 5		Pretend as you arw increasing or decreasing speed of vehicle.	*Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton’s laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Express acceleration in appropriate SI units	

	Describing Motion	Average speed and Average velocity		Day 6		To make story in 1 minute	*Active Learning *Contextualisation *Laboratory Work	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate average velocity from position-time graph, displacement	
	Describing Motion	Uniform and Non, Uniform Motion		Day 7		Walk at the **same speed** from one end of the classroom to the other. Another student walks **slowly, then fast**.	*Modeling Instruction *Active Learning	CG 8 – Explores the nature of Science by doing Science.	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Represent data in multiple modes, including tables, graphs and visual representations, and interpret and draw inferences from the data	

	Describing Motion	Plotting Graphs		Day 8		Make the motion of slides and roller-coaster in the amusement park.	*Active Learning *Contextualisation *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science.	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Represent data in multiple modes, including tables, graphs and visual representations, and interpret and draw inferences from the data	
	Describing Motion	Position time Graph Velocity time graph		Day 9		A car moves, stops, then moves faster.” Students draw corresponding graph continuously in air using finger.	*Inquiry Based Learning(IBL) *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton’s laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Derive kinematic equations for motion in a straight line with constant acceleration by graphical method	

	Describing Motion	Kinematics equations of Motion Velocity Time Equation		Day 10		One student will be call a teacher say him to perform the action and others will identify it.	*Modeling Instruction *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Derive kinematic equations for motion in a straight line with constant acceleration by graphical method	
	Describing Motion	Position Time Equation		Day 11		Snap of figures every after 10 seconds.	*Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Derive kinematic equations for motion in a straight line with constant acceleration by graphical method	

	Describing Motion	Velocity Position Equation		Day 12		Rotate left hand slow and clap, rotate right hand fast and clap.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Derive kinematic equations for motion in a straight line with constant acceleration by graphical method	
	Describing Motion	Numerical		Day 13		Make a story in one minute.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate values of unknown physical quantities from the given physical quantities, using kinematic equations	

	Describing Motion	Numerical		Day 14		Asking students their lucky numbers.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate values of unknown physical quantities from the given physical quantities, using kinematic equations	
	Describing Motion	Numerical		Day 15		Asking students birthdays date.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate values of unknown physical quantities from the given physical quantities, using kinematic equations	

	Describing Motion	Numerical		Day 16		Teacher ask student to close eyes and imagine to feel and act like scientist performing experiment.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate values of unknown physical quantities from the given physical quantities, using kinematic equations	
	Describing Motion	Numerical		Day 17		Suppose your name is changed. You have given a choice to select name for you. Writ that name in air.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate values of unknown physical quantities from the given physical quantities, using kinematic equations	

	Describing Motion	Motion in a Plane		Day 18		Teacher gave one minutes to laugh without reason.	*Active Learning *Contextualisation *Laboratory Work *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Analyse real-life events and phenomena, and identify the key factors that influence their Behaviour.	
	Describing Motion	Uniform circular Motion, circular Motion		Day 18		Show any object moving in a **circle** with your hand movement → Introduce circular motion.	*Active Learning *Contextualisation *Laboratory Work *Inductive-Deductive	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Derive the expression of speed for uniform circular motion	

	Describing Motion	Numerical		Day 19		Make a dance step showing circular motion.	*Inquiry Based Learning(IBL) *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate of speed for uniform circular motion	
	Describing Motion	Numerical		Day 20		In a quick introduction teacher ask students, favorite cartoon character.	*Inquiry Based Learning(IBL) *Modeling Inductive- *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate of speed for uniform circular motion	

	Describing Motion	Numerical		Day 21		Sharing positive words for neighboring student.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate of speed for uniform circular motion	
Ch. 6	How Forces Affect Motion	Concept of force	Force	August Day 1	Octobe r	In a quick introduction teacher ask students, their hobbies.	*Inquiry Based Learning(IBL) *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	Analyse real-life events and phenomena, and identify the key factors that influence their behaviour	

	How Forces Affect Motion	Measuring the magnitude of a force	SI unit	Day 2		Teacher instruct students to push and then pull table.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Explain that force has magnitude as well as direction • Define SI unit of force	
	How Forces Affect Motion	Balanced and Unbalanced Forces		Day 3		Teams made to play tug of war.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Identify situations in which balanced and unbalanced forces are acting on an object	

	How Forces Affect Motion	Force of Friction:		Day 4		Teacher ask students to rub hand unless it becomes hot.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Explain the role of friction on the motion of objects	
	How Forces Affect Motion	Force of Friction	Activity 6.1	Day 4		Rub any object to make sound.	*Inquiry Based Learning(IBL) *Modeling Instruction *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Recognise that for an object moving with constant velocity, the net force is zero, whereas a change in velocity (acceleration) is caused by a force	

	How Forces Affect Motion	Force of Friction	Activity 6.2	Day 5		Act like a shopkeeper weighing on the scale.	*Active Learning *Contextualisation *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Explain the role of friction on the motion of objects	ASSESSMENT AS LEARNING
	How Forces Affect Motion	Newton's First Law of Motion	Newton's First Law of Motion	Day 6		Simon says-walk 5second and stop.	*Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's first law of motion	

	How Forces Affect Motion	Newton's First Law of Motion	Applications of Newton's First Law	Day 7		Pretend like sitting in a bus which starts suddenly and you fall forward.	*Contextualisation *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's first law of motion	
	How Forces Affect Motion	Newton's First Law of Motion	Applications of Newton's First Law	Day 8		Teacher make the action and students will name the action.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop a model to represent real-life event	
	How Forces Affect Motion	Newton's First Law of Motion	Applications of Newton's First Law	Day 9		Shake the object.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop a model to represent real-life event	

	How Forces Affect Motion	Newton's second Law of Motion	Newton's second Law of Motion statement	Day 10		Simons says act like kicking football.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's second law in terms of mass and acceleration	
	How Forces Affect Motion	Newton's second Law of Motion	Applications of Newton's second Law	Day 11		Acts like catching cricket ball and make quack sound	*Active Learning *Contextualisation *Laboratory Work *Inductive-Deductive Method	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop a model to represent real-life event	
	How Forces Affect Motion	Newton's second Law of Motion	Applications of Newton's Second Law	Day 12		Keep any object overhead and balance.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop a model to represent real-life event	

	How Forces Affect Motion	Newton's second Law of Motion	Activity 6.3	Day 13		Perform yoga pose Tadasana.	*Inquiry Based Learning(IBL) *Modeling Instruction *Laboratory Work	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's second law in terms of mass and acceleration	
	How Forces Affect Motion	Newton's second Law of Motion	Activity 6.4	Day 14		Drop an object on floor and pick it up.	*Active Learning *Contextualisation *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate force using mathematical expression of Newton's second law of motion	

	How Forces Affect Motion	Newton's second Law of Motion	Numerical	Day 15		Rise right hand up and move in a circle.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate force using mathematical expression of Newton's second law of motion	
	How Forces Affect Motion	Newton's second Law of Motion	Numerical	Day 16		Dance by keepimg hands on waist.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate force using mathematical expression of Newton's second law of motion	

	How Forces Affect Motion	Newton's second Law of Motion	Numerical	Day 17		Stand on foot and raise both hand in air.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate force using mathematical expression of Newton's second law of motion	
	How Forces Affect Motion	Newton's second Law of Motion	Numerical	Day 18		Wink your eyes, keep head steady and move pupil.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Calculate force using mathematical expression of Newton's second law of motion	ASSESSMENT FOR LEARNING

	How Forces Affect Motion	Newton's Third Law of Motion	Newton's Third Law of Motion	Day 19		Try to balance by stand on one leg.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's third law of motion	
	How Forces Affect Motion	Newton's Third Law of Motion	Activity 6.5	Day 20		Act like pushing the wall.	*Active Learning *Contextualisation *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• State and explain Newton's third law of motion	

	How Forces Affect Motion	Newton's Third Law of Motion	Activity 6.5	Day 21		Pretend like walking on the same place.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Analyse real-life events and phenomena, and identify the key factors that influence their behaviour	
	Newton's Third Law	Newton's Third Law of Motion	Activity 6.5	Day 22		Stretch rubber band.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop a model to represent real-life event	
	Newton's Third Law	Newton's Third Law	Applications of Newton's Third Law	Day 23		Take out spring from pen and press it(or use eraser).	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Apply Newton's laws of motion to explain everyday life events	

	Newton's Third Law	Newton's Third Law	Applications of Newton's Third Law	Day 24		Make smiley showing today's mood.	*Inquiry Based Learning(IBL) *Modeling Instruction	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Apply Newton's laws of motion to explain everyday life events	
	Newton's Third Law	Newton's Third Law	Forces Acting on a System of Objects.	Day 25		Tell movies scene showing Newton's law.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Explain that force has magnitude as well as direction Define SI unit of force	

	Newton's Third Law	Newton's Third Law	Forces Acting on a System of Objects.	Day 26		Blow the balloon and release.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.1 – Applies Newton's laws to explain the effect of forces (change in state of motion — displacement and direction, velocity and acceleration, uniform circular motion, acceleration due to gravity) and analyses graphical and mathematical representations of motion in one dimension	• Explain that force has magnitude as well as direction Define SI unit of force	
Ch. 7	Work, Energy, and Simple Machines	Work Done by a Constant Force	Introduction	October Day 1	November	Pass the smile.	*Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Analyse real-life events and phenomena, and identify the key factors that influence their behaviour	ASSESSMENT OF LEARNING
	Work, Energy, and Simple Machines	Work Done by a Constant Force	Definition, SI unit	Day 2		Talk Like a Robot.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Define work done by a constant force and its SI unit	

	Work, Energy, and Simple Machines	Work Done by a Constant Force	Work against gravity	Day 3		Hold left ear by right hand and right ear by left for one minute. (This activate brain and release).stress	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Define work done against gravity by a constant force	
	Work, Energy, and Simple Machines	Work Done by a Constant Force	Work against oblique force	Day 4		Make your picture visualizing your profession after 20 years.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Define work done against oblique force by a constant force	
	Work, Energy, and Simple Machines	Work Done by a Constant Force	Positive and negative work done	Day 5		Expresses positive thoughts for Education/study.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Calculate work done by a force using mathematical expression	
	Work, Energy, and Simple Machines	Work Done by a Constant Force	Zero work done	Day 7		Does ghost exit? Thumb up for YES Cross hand for NO.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Calculate work done by a force using mathematical expression	

	Work, Energy, and Simple Machines	Work-Energy Theorem	Work-Energy Theorem	Day 8		Kapil Sharma Minute Show. Jokes telling.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• State work-energy theorem	
	Work, Energy, and Simple Machines	Work-Energy Theorem	Work-Energy Theorem	Day 9		Riddles Time. Simple Riddles so the every student take part.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 8 – Explores the nature of Science by doing Science	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Formulate hypotheses about scientific phenomena based on prior knowledge and understanding of scientific concepts, theories, laws, and principles	
	Work, Energy, and Simple Machines	Energy	Kinetic Energy Definition , SI unit	Day 10		Flap your wing like bird.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Explain the concept of energy and state its SI unit	

	Work, Energy, and Simple Machines	Energy	Forms of Energy	Day 11		Make favorite superhero's pose.	*Modeling Instruction *Active Learning *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Name forms of energy and identify their interconversion in surroundings (elementary idea)	
	Work, Energy, and Simple Machines	Energy	Mechanical Energy	Day 12		Teacher shows a picture and ask student to spot the 5 differences.	*Modeling Instruction *Active Learning *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Explain the concept of energy and state its SI unit	
	Work, Energy, and Simple Machines	Energy	Kinetic energy	Day 13		Act like driving a car.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Explain the concept of kinetic energy and state its SI unit.	
	Work, Energy, and Simple Machines	Energy	Kinetic energy	Day 14		Stand if your favorite colour is blue.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Analyse real-life events and phenomena, and identify the key factors that influence their behaviour.	

	Work, Energy, and Simple Machines	Energy	Numerical on Kinetic energy	Day 15		Jump at same place if you can ride bicycle.	*Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results.	• Use models to manipulate variables and predict results	
	Work, Energy, and Simple Machines	Energy	Numerical on Kinetic energy	Day 16		Share your favorite food/cuisine.	*Inquiry Based Learning(IBL) *Modeling Instruction *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Calculate kinetic and potential energy using mathematical expressions	
	Work, Energy, and Simple Machines	Energy	Numerical on Kinetic energy	Day 17		Get line up by birthday month (January to December)	*Inquiry Based Learning(IBL) *Modeling Instruction *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions	• Calculate kinetic and potential energy using mathematical expressions	
	Work, Energy, and Simple Machines	Energy	Potential energy Definition , SI unit	Day 18		Drop an object and lift it up.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Define potential energy for an object raised to a height and derive its mathematical expression	

	Work, Energy, and Simple Machines	Energy	Gravitational Potential Energy	Day 19		Jump number of time as of your month of birth.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Define Gravitational Potential and derive its mathematical expression	
	Work, Energy, and Simple Machines	Energy	Conservation of mechanical energy	Day 20		Arrange in a line accordingly alphabetical order of name.	*Contextualisation *Laboratory Work *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Explain conversion between potential energy and kinetic energy (for the case of an object under free fall)	
	Work, Energy, and Simple Machines	Energy	Activity 7.2	Day 21		Hold an object in hand and move like a pendulum.	*Inquiry Based Learning(IBL) *Contextualisation *Laboratory Work *Inductive-Deductive Method	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	Analyse real-life events and phenomena, and identify the key factors that influence their behaviour	
	Work, Energy, and Simple Machines	Energy	Numerical on potential Energy	Day 22		Student call numbers like 1,2,3,and 4 Students who call 1 will sing, 2 will dance 3 will clap and 4 will snap.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Calculate kinetic and potential energy using mathematical expressions	

	Work, Energy, and Simple Machines	Energy	Numerical on potential Energy	Day 23		Stand if favorite super hero is Iron man.	*Modeling Instruction *Active Learning *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Calculate kinetic and potential energy using mathematical expressions	
	Work, Energy, and Simple Machines	Energy	Power Definition, SI unit	Day 24		Pack bag fast and keep on your head.	*Modeling Instruction *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Define power and its unit	
	Work, Energy, and Simple Machines	Energy	Numerical based on Power	Day 25		Write numbers from 1 to 100 fast.	*Inquiry Based Learning(IBL) *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Calculate power using its mathematical expression	
	Work, Energy, and Simple Machines	Energy	Numerical based on Power	Day 26		One minute, fast sitting and standing activity.	*Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.5 – Defines work in scientific terms, and represents the relationship between potential and kinetic energy (conservation of energy) in mathematical expressions.	• Calculate power using its mathematical expression	

	Work, Energy, and Simple Machines	Simple Machines	Pulley	Day 27		Lottery- Slip with roll number will be drawn. That student will give a word and everyone will sing song.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Identify different simple machines (pulley, inclined plane and lever)	
	Work, Energy, and Simple Machines	Simple Machines	Inclined plane	Day 28		Keep stack of 10 notebooks and another notebook inclined. Now roll pen , pencil over it.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Identify different simple machines (pulley, inclined plane and lever)	
	Work, Energy, and Simple Machines	Simple Machines	Activity 7.3	Day 29		Hold two pen or pencil (use as a chop sticks) and pick any object.	*Inquiry Based Learning(IBL) *Active Learning *Laboratory Work *Problem-Based Learning (PBL)	CG 8 – Explores the nature of Science by doing Science	C 8.1 – Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles, and use these models to manipulate variables and predict results	• Develop model to represent real-life event	
	Work, Energy, and Simple Machines	Simple Machines	Numerical	Day 30		Life without machines is possible of not. Thumb up for YES Cross hands for NO.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Define mechanical advantage and calculate its value for simple machine	

	Work, Energy, and Simple Machines	Simple Machines	Lever	Day 31		Spot3 differences between given picture.	*Modeling Instruction *Active Learning *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Identify different simple machines (pulley, inclined plane and lever)	
	Work, Energy, and Simple Machines	Simple Machines	Activity 7.4	Day 32		One of the student will make any action, others with match with that.	*Inquiry Based Learning(IBL) *Modeling Instruction *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Demonstrate and explain mechanical advantage of simple machines their conclusions to others	
	Work, Energy, and Simple Machines	Simple Machines	Activity 7.5:	Day 33		Suggest song for this chapter.	*Inquiry Based Learning(IBL) *Modeling Instruction *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.6 – Demonstrates the principle of mechanical advantage by constructing simple machines (system of levers and pulleys)	• Demonstrate and explain mechanical advantage of simple machines their conclusions to others	

Ch. 10	Sound Waves: Characteristics and Applications	Introduction	Definition of wave, Its types	January Day 1	January	Ask students to take out any object from bag Ask it's important and its replacement.	*Modeling Instruction *Active Learning *Contextualisation	CG 8 – Explores the nature of Science by doing Science	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Formulate hypotheses about scientific phenomena based on prior knowledge and understanding of scientific concepts, theories, laws, and principles	
	Sound Waves: Characteristics and Applications	Types of Waves	Mechanical waves, Non Mechanical waves	Day 2		Make hand movement to show the sea waves.	*Inquiry Based Learning(IBL) *Modeling Instruction *Active Learning *Contextualisation	CG 8 – Explores the nature of Science by doing Science	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Analyse real-life events and phenomena, and identify the key factors that influence their behaviour	

	Sound Waves: Characteristics and Applications	Types of Mechanical Waves	Transverse waves, Longitudinal waves	Day 3		Hold eraser sharpener or any small object to show movement above & below and to and fro.	*Active Learning *Contextualisation *Laboratory Work *Inductive-Deductive Method	CG 8 – Explores the nature of Science by doing Science	C 8.2 – Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data, and understanding of scientific concepts, theories, laws and principles, and communicates findings using scientific terminology)	• Predict about the outcome of an experiment or investigation based on their hypotheses	
	Sound Waves: Characteristics and Applications	Production of Sound	Production of Sound by different objects	Day 4		Produce sound using rubber band or banging any object. * Make a sound of any bird.	*Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Demonstrate the production of sound in multiple ways (through vibration of strings, membranes, air columns) using materials in surroundings	ASSESSMENT AS LEARNING
	Sound Waves: Characteristics and Applications	Production of Sound	Activity 10.1	Day 5		Bang spoon or fork on table and hear sound by bringing it near your ears. Try to listen the vibrations.	*Inquiry Based Learning(IBL) *Active Learning *Contextualisation *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Demonstrate that sound can travel through different mediums (air, solid and liquid)	

	Sound Waves: Characteristics and Applications	Production of Sound	Tuning for Activity 10.2	Day 6		Take a paper stripe bring near mouth and blow air force fully.	*Inquiry Based Learning(IBL) *Active Learning *Laboratory Work *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Explain that sound is produced by vibrations	
	Sound Waves: Characteristics and Applications	Production of Sound	Propagation of Sound	Day 6		Move hand like sea wave and walk.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Describe that sound needs a medium for propagation	
	Sound Waves: Characteristics and Applications	Production of Sound	Activity 10.4	Day 7		Make sound like honey bee or mosquito.	*Inquiry Based Learning(IBL) *Laboratory Work *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Explain that sound is produced by vibrations	
	Sound Waves: Characteristics and Applications	Sound needs a medium	Sound needs a medium to propagate	Day 8		One student bang slowly on a table and other keep his/her head near the table, try to listen sound.	*Active Learning *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Describe that sound needs a medium for propagation	

	Sound Waves: Characteristics and Applications	Propagation of Sound Waves	Compression and Rare faction	Day 9		Keep talcum powder on palm and blow it.	*Active Learning *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Explain that sound travels as a longitudinal wave	
	Sound Waves: Characteristics and Applications	Propagation of Sound Waves	Activity 10.5	Day 10		Stand if you polish your shoes.	*Contextualisation *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Demonstrate that sound can travel through different mediums (air, solid and liquid)	
	Sound Waves: Characteristics and Applications	Energy of Sound Waves	Activity 10.6	Day 11		Line up as per your recent weight.	*Contextualisation *Laboratory Work *Inductive-Deductive Method *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments	• Describe that sound needs a medium for propagation	
	Sound Waves: Characteristics and Applications	Energy of Sound Waves	Graphical Representation of a Sound Wave	Day 12		I wash my school uniform. Thumb up if YES, cross hands if NO.	*Active Learning *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Analyse graphs representing sound	

	Sound Waves: Characteristics and Applications	Characteristics of a Sound Wave	Wavelength, frequency and time period	Day 13		Throw any object above and catch.	*Inquiry Based Learning(IBL) *Modeling Instruction *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe the characteristics of sound waves the (wavelength, frequency, time period, amplitude, intensity and speed)	
	Sound Waves: Characteristics and Applications	Characteristics of a Sound Wave	Amplitude and intensity of the sound waves	Day 14		1/3 students of class will whisper, 1/3 will talk softy and 1/3 will make quack sound.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe the characteristics of sound waves the (wavelength, frequency, time period, amplitude, intensity and speed)	
	Sound Waves: Characteristics and Applications	Characteristics of a Sound Wave	Speed of Sound	Day 15		Is speed safe? Thumb up if YES, cross hands if NO.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe the characteristics of sound waves the (wavelength, frequency, time period, amplitude, intensity and speed)	
	Sound Waves: Characteristics and Applications	Characteristics of a Sound Wave	Relationship between speed wavelength and time period	Day 16		Stand if favorite super hero is Bat man.	*Inquiry Based Learning(IBL) *Contextualisation *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Write relationship between time period and frequency of sound wave	

		Characteristics of a Sound Wave	Numerical	Day 17		Make pose like a Spiderman, Batman or ironman.	*Inquiry Based Learning(IBL) *Modeling Instruction *Problem-Based Learning (PBL)	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Derive mathematical expression for speed of sound	
	Sound Waves: Characteristics and Applications	Characteristics of a Sound Wave	Numerical	Day 18			*Inquiry Based Learning(IBL) *Active Learning *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Calculate speed of sound using its mathematical expression	
	Sound Waves: Characteristics and Applications	Human perception of sound	Pitch and Loudness	Day 18		Stand if favorite super hero is Spiderman	*Active Learning *Contextualisation *Inductive-Deductive Method	CG 5 – Draws linkages between scientific knowledge and knowledge across other curricular areas.	C 5.3 – Applies scientific principles to explain phenomena in other subjects (sound pitch, octave, and amplitude in music; use of muscles in dance form and sports)	• Describe music in terms of characteristics of sound waves, such as loudness and pitch	
	Sound Waves: Characteristics and Applications	Reflection of Sound	Definition, Laws of Reflection	Day 19		Hop on same place for one minute.	*Modeling Instruction *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe reflection of sound, and apply it to echo and reverberations in surroundings	

		Reflection of Sound	Echo	Day 20		Stand and rotate your head in circle.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe reflection of sound, and apply it to echo and reverberations in surroundings	ASSESSMENT AS LEARNING
	Sound Waves: Characteristics and Applications	Reflection of Sound	Reverberation	Day 21		Touch ears by hand for one minute	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Describe reflection of sound, and apply it to echo and reverberations in surroundings	
		Ultrasonic and Infrasonic Waves, and their Applications	Infrasonic, Ultrasonic , Audible Range Sound	Day 22		Decided a song and all sing it together.	*Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Explain human perception of sound in terms of audible range, loudness and pitch of sound	ASSESSMENT FOR LEARNING
	Sound Waves: Characteristics and Applications	Ultrasonic and Infrasonic Waves, and their Applications	Echolocation	Day 23		Suggest movie name which music and sound effect you enjoyed a lot.	*Inquiry Based Learning(IBL) *Contextualisation *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis.	C 2.7 – Describes the origin and properties of sound (wavelength, frequency, amplitude) and differences in what we hear as it propagates through different instruments.	• Explain the use of sound waves for echolocation	

13	Earth as a System: Energy, Matter, and Life	Introduction	• Earth as interconnected system	January Day 1	January	Draw anything which comes in your mind after the name of the chapter.	*Contextualisation *Inductive-Deductive Method *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Explain the interconnectedness between different spheres of the Earth (biosphere, geosphere, hydrosphere, cryosphere and atmosphere)	
		Uneven Heating of the Earth	• Nature of solar energy: solar radiation, electromagnetic	Day 2		Spell your name backward and read loudly.	*Inquiry Based Learning(IBL) *Contextualisation *Inductive-Deductive Method *Modeling Instruction *Active Learning *Contextualisation *Problem-Based Learning (PBL) *Inductive-Deductive Method	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Explain the nature of solar radiation • Explain that solar radiation is an electromagnetic waves having different Frequencies	

		Uneven Heating of the Earth	Interaction of solar radiation on the Earth's surface Albedo	Day 3		Colour hunting activity from given picture of the Earth.	*Contextualisation *Inductive-Deductive Method *Modeling Instruction	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Explain how heat from the Sun warms the Earth's surface differently based on the shape, latitude and tilt of the Earth	
		Uneven Heating of the Earth	Latitude and Earth's shape Role of the atmosphere	Day 4		Suggest any Hindi song on sun and moon	*Contextualisation *Inductive-Deductive Method *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Explain the interaction of solar radiation with the Earth's surface and relate the differential heating of the Earth's surface with the atmospheric phenomena, such as air movement, evaporation, etc., and describe phenomena like mountain, valley, sea and land breezes	
		Uneven Heating Causes Wind and Ocean Currents	Local winds	Day 5		Sing Hindi song on winds.	*Contextualisation *Inductive-Deductive Method *Modeling Instruction *Active Learning *Contextualisation	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Describe how the latitude and tilt of the Earth, and absorption and reflection of solar radiation by different surfaces cause differential heating of the Earth's surface	

		Uneven Heating Causes Wind and Ocean Currents	Planetary winds	Day 6		Draw happy faces.	*Contextualisation *Inductive-Deductive Method *Modeling Instruction *Active Learning	CG 2 – Explores the physical world around them, and understands scientific principles and laws based on observations and analysis	C 2.8 – *Explores interconnected systems and phenomena that support and affect life on Earth (hydrosphere, biosphere, atmosphere, geosphere, cryosphere and their interrelationships, earth processes, hazards, etc.) *Additional Competency for Earth Science	• Identify various components of the Earth that interact with solar energy • Explain the role of the atmosphere in influencing weather and climate on the Earth	ASSESSMENT OF LEARNING