

LESSON PLAN (PERIOD -WISE)

SUBJECT: SCIENCE

GRADE: VIII

Chapter Number and Title of Chapter	CHAPTER 11, FORCE AND PRESSURE
Period Number	2 (approx. 40 min each)
Learning Objectives	▪ To learn about various types of forces ▪ To understand difference between contact and non contact forces ▪ To learn about the force of friction and its effects
Teaching Aids / Resources	Textbook , examples of familiar situations involving motion, a heavy object, table, rubber ball, ruler, other reference books, magnets, empty bottle, water, blackboard, PPT Concept Map
Previous Knowledge/ Curiosity Questions	• How are you able to pick up a bucket of water? • How an apple falls from the tree towards earth? • What happens when you bring iron nail near to a magnet? • Have you ever rubbed a scale with hair and tried to pick up paper bits ? • Give the different forces used in different situations?
Announcement of topic	On finding the students unable to answer the last question, the teacher would announce that you have already studied about push and pull, so today we will begin with the force and its types.
Teaching Methodology/ Strategy	Transaction would proceed in the following manner- Suggestive Methodologies: Brain Storming – • What do you do to lift up the book from table? • Why a car stops when brake is applied? • Why a magnetic sticker sticks to the door of the refrigerator? • Why sometimes you feel current when you touch some other object like iron gate ? Active learning- Active interaction of students with teacher through activities, Mind map, audio visual aids, research,project making will be there. Group learning- Students will have group discussions, Report making in pairs, Team quiz, experimenting on pressure. Questioning- Students will be asked different questions relating to concept of pressure exerted by liquids. Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom.

Content Obligatory Vocabulary (Keywords)	contact force, muscular force, friction, electrostatic force, gravitational force, gravity, magnetic force, non-contact force
Learning Concepts/ Teaching Points	• Contact forces can exist only when there is contact between two or more bodies. • Non contact forces don't require any contact to exist. • Two types of contact forces that is muscular force and frictional force. • Muscular force occurs due to use of muscles, eg. Lifting bucket of water. • Friction is the force acting opposite to the direction of motion. • Two types of non contact forces that is magnetic force, electrostatic force, gravitational force. • Magnetic force causes attraction or repulsion between two magnets. It also causes attraction of magnetic material towards magnet. • Gravitational force is a force due to which one object attracts another objects. • Electrostatic forces occur due to charges in the body due to which a charged body attracts another charged or uncharged body.
Hard Spots/ Focus Spots	Magnetic force and electrostatic forces, both cause attraction. The cause of attraction is not focused upon. Students write electrostatic force as magnetic force
Experiential Content	Students will be shown practically the magnetic force, electrostatic force through activities.

Subject Enrichment Activities for Internal Assessment	Collect information about electrostatic force and magnetic force and make a project file of three to four pages. Hints: Who discovered it? Causes Effects Examples with pictures
Recapitulation :	• Give one situation where you apply muscular force? • Is the direction of motion and friction same? • Why does an iron nail get attracted towards a magnet? • Give one example of electrostatic force.
Assignment:	Write a short note on Gravitational force. Give at least three examples where gravitational force is applied. Explain two types of contact forces.