DCP FOR CHAPTER-3

FORCE AND PRESSURE

Number of periods	Sub-Topics
1	Force, Units of force, Turning effect of force.
2	Factors affecting the turning of a body, Moments of a force, Unit of moment of force.
3	Thrust, Pressure, Units of pressure, Factors affecting pressure.
4	Examples of pressure, Liquid pressure, Factors affecting liquid pressure.
5	Atmospheric pressure, Examples in daily life to show existence of atmospheric pressure.
6	Numericals on force and pressure.
7	Summarization of the chapter, Exercise questions.

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ODM Teachers' Note

Class	VIII	**Subject**	PHYSICS
Prd	1	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Force, Units of force, Turning effect of force.		
Teaching Aid To be used	Smart Class, PowerPoint presentation.		
Learning Outcome	Students will be able to ➢ Clarify their doubts and form a correct concept of force. ➢ Understand that forces are due to an interaction. ➢ Explore more interesting facts about the nature of force. ➢ Learn about the different effects of force on the state, shape, speed and direction of an object. ➢ Recall the two main types of forces and their meaning. ➢ Relate and apply their knowledge about force and its effects in real life situations.		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** **The teacher will introduce the topic by showing a video.** ➢ https://youtu.be/IJWEtCRWGvI	**For Average** **The teacher will introduce the topic by showing a video.** https://youtu.be/IJWEtCRWGvI	
FORCE	Explain force and its effects by showing a video. https://youtu.be/B6mi1-YoRT4 https://youtu.be/9tg3csrFVJw		
UNITS OF FORCE	➢ Si unit of force ➢ Other units of force. ➢ Relationship between SI unit and other units of force.		
TURNING EFFECTS OF FORCE	➢ Explain turning effects of force.		

Home Assignment	Exercise: B: 1,2,3,4
8. Common Errors	Different units of force.

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Class	VIII	**Subject**	PHYSICS
Prd	2	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Factors affecting the turning of a body, Moments of a force, Unit of moment of force		
Teaching Aid To be used	Smart Class, PowerPoint presentation.		
Learning Outcome	• Students will be able to • Define moment of a force • Apply turning effect of force in day to day life situations. • State the unit of moment of force.		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** ➢ Recapitulate the previous topic by asking the following questions. ➢ Define force. ➢ What is the SI unit of force? ➢ 1 kgf = _____N ➢ Differentiate between a rigid body and a non rigid body.	**For Average** ➢ Recapitulate the previous topic by asking the following questions. ➢ Define force. ➢ What is the SI unit of force? ➢ 1 kgf = _____N ➢ Differentiate between a rigid body and a non rigid body.	
2 . Factors affecting the turning of a body	➢ Magnitude of force. ➢ Perpendicular distance of the force from the pivoted point.		
3. , Moments of a force,	1. Define moment of force.		
4. Unit of moment of force	➢ State the SI unit of moment of force. ➢ Relationship between SI unit and other units.		

4.Home Assignment	Exercise:B-5,6,7
Common Error(s)	SI unit and other units of moment of force.

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Class	X	**Subject**	PHYSICS
Prd	3	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Thrust, Pressure, Units of pressure, Factors affecting pressure.		
Teaching Aid To be used	Smart Class, PowerPoint presentation		
Learning Outcome	Students will be able to • Define pressure. • give examples of pressure from everyday experience • To be able to use the basic formula to calculate pressure • To be able to carry out a simple experiment to investigate the relationship between pressure and depth • To recall that Pascal is the unit of pressure • To rearrange the formula to correctly calculate force, area or pressure		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** ➢ Recapitulation of the previous topic by asking the following questions. ➢ Define the term moment of force. ➢ State two factors which affect moment of force.	**For Average** ➢ Recapitulation of the previous topic by asking the following questions. ➢ Define the term moment of force. ➢ State two factors which affect moment of force.	
2 Thrust,	➢ Define thrust ➢ State the unit of thrust. ➢ Explain the examples of thrust by shoeing a video. ➢ https://youtu.be/iwJUL3hUJmo		
3. Pressure, Units of pressure,.	➢ Define pressure. ➢ State the unit of pressure.		
4. Factors affecting pressure	➢ Explain the factors affecting pressure.		

5.Home Assig	Exrcise:B-17,18,19

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Class	X	**Subject**	PHYSICS
Prd	4	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Examples of pressure, Liquid pressure, Factors affecting liquid pressure.		
Teaching Aid To be used	Smart Class, PowerPoint presentation, prism		
Learning Outcome	• Students will be able to • Define pressure. • give examples of pressure from everyday experience • To be able to use the basic formula to calculate pressure • To be able to carry out a simple experiment to investigate the relationship between pressure and depth • To recall that Pascal is the unit of pressure • To rearrange the formula to correctly calculate force, area or pressure		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	Recapitulate the previous topic by asking the following questions. 1. Define the term pressure and state its unit. 2. How thrust is related to pressure? 3. Name two factors on which the pressure on a surface depends.	Recapitulate the previous topic by asking the following questions. 4. Define the term pressure and state its unit. 5. How thrust is related to pressure? 6. Name two factors on which the pressure on a surface depends. ➢	
Examples of pressure	➢ Explain the examples of pressure by showing a video. ➢ https://youtu.be/loi3zQuaTJQ		
3. Liquid pressure, Factors affecting liquid pressure	➢ Explain pressure exerted by liquid by showing a video. ➢ https://youtu.be/Cvp6mLWbgaM		

6.Home Assignment	Exrcise:B-20,21,22

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Class	X	**Subject**	PHYSICS
Prd	5	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Atmospheric pressure, Examples in daily life to show existence of atmospheric pressure.		
Teaching Aid To be used	Smart Class, PowerPoint presentation		
Learning Outcome	• Students will be able to • Define sublimation. • Explain sublimation by molecular model. • Differentiate between sublimation and deposition.		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** ➢ Recapitulation of previous topic by asking the following questions. ➢ Define evaporation. ➢ What are the applications of evaporation? ➢ Differentiate between evaporation and boiling.	**For Average** ➢ Recapitulation of previous topic by asking the following questions. ➢ Define evaporation. ➢ What are the applications of evaporation? ➢ Differentiate between evaporation and boiling.	
Atmospheric pressure,.	➢ The teacher will explain atmospheric pressure by showing a video. ➢ https://youtu.be/KndNN28OcEI		
3. Examples in daily life to show existence of atmospheric pressure	➢ Discuss the examples of atmospheric pressure.		
6.Home Assignment	Exercise:B-36,37		

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Class	X	**Subject**	PHYSICS
Prd	6	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Numerical on force and pressure.		
Teaching Aid To be used	Smart Class, PowerPoint presentation		
Learning Outcome	• Students will be able to • Apply the concept of force and pressure in day to day life • Solve numerical based on force and pressure.		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** ➢ Ask the following questions ➢ Recapitulation of topic by asking the following questions. ➢ Define atmospheric pressure. ➢ We do not feel uneasy even under the enormous atmospheric pressure. Give a reason.	**For Average** ➢ Ask the following questions ➢ Recapitulation of topic by asking the following questions. ➢ Define atmospheric pressure. ➢ We do not feel uneasy even under the enormous atmospheric pressure. Give a reason.	
Recapitulation of the chapter:	All topics are to be discussed with the students.		
Numerical on force and pressure.	1. Find the moment of force of 20 N about an axis of rotation at a distance of 0.5 m from the force. 2. The moment of force of 25 N about a point is 2.5 Nm. Find the perpendicular distance of force from that point. 3. A normal force of 200 N acts on an area of 0.02 m^2. Find the pressure in pascal. 4. Find the thrust required to exert a pressure of 50000 pascal on an area of 0.05 m^2.		

6.Home Assignment	Exercise:C-1,2,3,4

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Class	X	**Subject**	PHYSICS
Prd	7	**Chapter-3**	FORCE AND PRESSURE
Sub-Concepts	Summarization of chapter and exercise question discussion.		
Teaching Aid To be used	Smart Class, PowerPoint presentation		
Learning Outcome	• Students will be able to • .		
Sl. No	**Step Wise (What to be done)**		
1. **Introduction**	**For Achievers** ➢ Ask the following questions ➢	**For Average** ➢ Ask the following questions ➢	
Summarization of the chapter.	All topics are to be discussed with the students.		
Exercise questions discussion.	Objective type questions are to be discussed. 1. True/False type 2. Fill in the blanks 3. Match the following. 4. Multiple choice questions.		
6.Home Assignment	Exercise:-A-1,2,3		