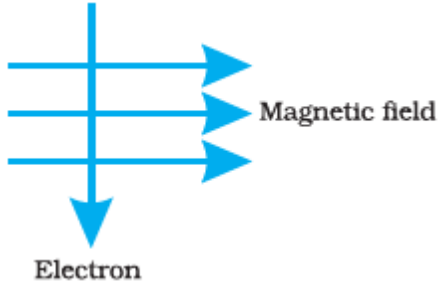
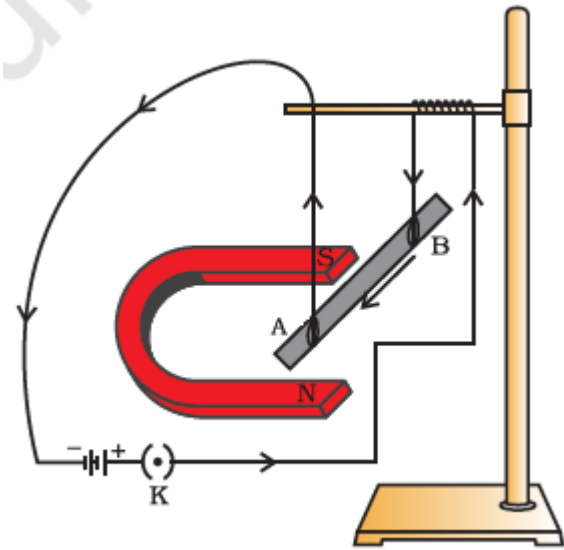


CLASS – X
SCIENCE
LESSON PLAN
CHAPTER – MAGNETIC EFFECTS OF ELECTRIC CURRENT

Sub-Topic	FORCE ON A CURRENT CARRYING CONDUCTOR IN A MAGNETIC FIELD
Duration	Approx. 40 minutes
PRE-REQUISITE KNOWLEDGE	Students should know that a current carrying conductor possess magnetic field.
Learning Objective	Students will be able to apply Fleming's Left Hand Rule to determine the direction of force on a current carrying conductor or a charged particle placed in an external magnetic field.
Methodology	Strategies used- Brain Storming Transaction would proceed in the following manner- Anticipatory Set: (15 -20 min) The facilitator introduces the topic by Brain Storming - enhancing students' critical thinking and collaborating skills. During this discussion, he explains the reason behind the force on a current carrying conductor placed in external magnetic field and also gives emphasis on the factors on which this force depends. He will introduce Fleming's Left Hand Rule using his hand. Using digital content, facilitator explains how the rule is used to determine the direction of force. He can further ask his students to write Force on their thumb, Magnetic Field on Fore Finger and Current on centre Finger for better assimilation. Discussion of topic and Guided Practice (15 min) Critical Thinking and Problem Solving: The students will solve following questions from the NCERT. Q An electron enters a magnetic field at right angles to it, as shown in Figure. The direction of force acting on the electron will be (a) to the right. (b) to the left. (c) out of the page. (d) into the page.  Q Which of the following property of a proton can change while it moves freely in a magnetic field? (There may be more than one correct answer.) (a) mass (b) speed (c) velocity (d) momentum Q A positively-charged particle (alpha-particle) projected towards west is deflected towards north by a magnetic field. The direction of magnetic field is (a) towards south (b) towards east (c) downward (d) upward

	The facilitator would take rounds and help the students in solving the questions. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Learning Outcomes	Students will be able to: • State Fleming's Left Hand Rule. • Explain why force acts on a current carrying conductor placed in magnetic field. • Apply Fleming's Left Hand Rule to determine the direction of force on a current carrying conductor or a charged particle placed in an external magnetic field. Knowledge and Understanding • Critical Thinking • Reasoning • Problem Solving • Collaboration Skills and Competencies
H.W. Assignment	Independent Practice: A worksheet will be given to the students as Home Assignment. Observe the Picture Carefully and answer the following questions  Q1 Write the direction in which the rod AB would move. Q2 What will be the value of Force on the rod if the key is opened? Q3 State the rule used to determine the direction of force on the rod AB. Q4 Write the factors on which the force on the current carrying conductor placed in external magnetic field depends(any four).

