

WORK SHEET – Module –4/5

Name: _____ **Roll No.** _____ **Class/ Sec** _____

Date: _____ **Max. Marks ;** _____ **Marks Obtained** _____

Sub: SCIENCE (PHYSICS) Class: IX

Chap – 9, FORCE AND LAWS OF MOTION

Answer the following questions in one word or in on sentence.

1. A balloon is inflated and released why does it fly forward as air escapes out of it? 1m
2. If action and reaction are equal and opposite forces then why they do not cancel each other? 1m
3. “A horse pulling the cart.” Write what is the action and the reaction force? 1m
4. Does Newton’s third law apply to a system where bodies do not actually touch each other? 1m
5. According to the third law of motion action and reaction force act on same body or on different bodies? 1m
6. How are action and reaction forces related in magnitude & direction? 1m
7. Which law can explain the process of recoil of gun? 1m
8. Why is it difficult to walk on a sand? 1m
9. Which law says the nature of force? 1m
10. What is the force of action and the force of reaction in “swimming”? 1m

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ANSWER KEY

1. The reaction force of air pushed out of balloon pushes the balloon in forward.
2. Action and reaction forces act upon different bodies.
3. Horse exerts a force on the ground is an action force. Reaction force is ground pushes him forward.
4. No.
5. Action and reaction forces always act on different bodies in opposite directions.
6. Action and reaction forces are equal in magnitude.
7. Newton's third law.
8. Because the forces of action and reaction are small.
9. Newton's third law.
10. The force of action is a swimmer pushes the water backwards with his hands and feet. The water pushes the swimmer forward with the same force is the force of reaction.