



Oxford City Schools

Proficiency Scale

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GRADE LEVEL: 8 COURSE NAME: SCIENCE

MEASUREMENT TOPIC: EXPLAIN HOW EXTERNAL FORCES AFFECT MOTION

4	<ul style="list-style-type: none">• Critique a frictionless force scenario using principles from Newton's Laws of motion
3	<ul style="list-style-type: none">• Use mathematical representations to explain how the sum of external forces on an object and the object's mass affects its acceleration. (11a)• Use models to demonstrate each of Newton's laws of motion and explain the effect of net force on objects. (11)• Use data from an investigation to identify factors that affect acceleration. (9)
2	<ul style="list-style-type: none">• Develop and use models to illustrate how individual external forces affect the motion of objects. (10)• Investigate motion to explore factors that affect acceleration.• Explain Newton's Laws of motion.

1

With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.

Key Vocabulary:

Newton's Laws of motion, forces, motion, friction, gravity, acceleration, and mass.