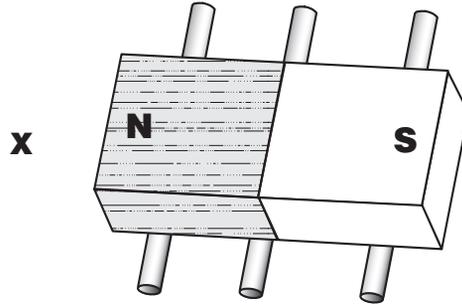


BENCHMARK SC.5.P.13.1

Reporting Category	Physical Science
Standard	Big Idea 13 Forces and Changes in Motion
Benchmark	SC.5.P.13.1 Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects. (Also assesses SC.3.E.5.4 and SC.4.P.8.4.)
Also Assesses	<p>SC.3.E.5.4 Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome.</p> <p>SC.4.P.8.4 Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.</p>
Benchmark Clarifications	<p>Students will identify familiar forces that affect how objects move.</p> <p>Students will identify scenarios whereby gravity is overcome.</p> <p>Students will identify and/or describe examples of magnetic attraction and repulsion.</p>
Content Limits	<p>Items assessing familiar forces are limited to pushes, pulls, friction, gravity, and magnetic force.</p> <p>Items may only require the interpretation of two forces at a time.</p> <p>Items referring to friction will only assess the force of friction as a resistance to movement.</p> <p>Items that assess magnetic attraction will not use the context of separating mixtures and solutions.</p>
Stimulus Attributes	None specified
Response Attributes	None specified
Prior Knowledge	Items may require the student to apply science knowledge described in the NGSSS from lower grades. This benchmark requires prerequisite knowledge from SC.K.E.5.1, SC.1.E.5.2, SC.K.P.13.1, SC.1.P.13.1, SC.2.P.13.1, SC.2.P.13.2, SC.2.P.13.3, and SC.2.P.13.4.

Sample Item 18 **SC.4.P.8.4**

Bar magnets have a north pole (N) and a south pole (S). Latrisha places a bar magnet on three small straws so it can roll. Her setup is shown below.



Placing which of the following objects at point X will cause the bar magnet to move away from point X?

- A. an iron nail
- B. an aluminum can
- ★ C. the north end of another bar magnet
- D. the south end of another bar magnet