

Studying the Standards Personal Standards Activity Worksheet

The goal of this activity is to better understand the concepts and skills your students HAVE when they come to you and what you need to do to move them to the next standard of learning. One way to accomplish this is to determine how the standards change from adjacent grades in terms of content and processes.

Big Idea: Science- Force an Motion

<p>Standard for Grade: 3 PS3 (3-4)–7 Students demonstrate an understanding of force (e.g., push-pull, gravitational) by demonstrating that different objects fall to earth unless something is holding them up. (tied to ideas/concepts of 7a.)</p> <p>PS3 (3-4)–7 Students demonstrate an understanding of motion by predicting the direction and describing the motion of objects (of different weights) if a force is applied to it, describing change in position relative to other objects or background, investigating and describing that different amounts of force can change direction/speed of an object in motion.</p>	<p>Standard for Grade: 4 PS3 (3-4)–7 Students demonstrate an understanding of motion by predicting the direction and describing the motion of objects (of different weights, shapes,sizes, etc.) if a force is applied to it,describing change in position relative to other objects or background, investigating and describing that different amounts of force can change direction/speed of an object in motion and conducting experiments to demonstrate that different objects fall to earth unless something is holding them up. (tied to ideas/concepts of 7a)</p>	<p>Standard for Grade: 5 PS3 (5-6)–8 Students demonstrate an understanding of force (e.g., friction, gravitational, magnetic) by recognizing that a force is a push or a pull, explaining that changes in speed or direction of motion are caused by forces, and showing that electric currents and magnets can exert a force on each other.</p>
---	--	---

<p>Changes (from grade 3 to grade 4) Look at the content and skills from grade to grade. List what changes in the standard.</p> <ul style="list-style-type: none">● Using data to to predict the direction and describe the motion of an object if force is applied to it.● Predicting how different amounts of force can change the direction/speed of an object in motion.● Conducting experiments to demonstrate that different objects fall to earth unless something is holding them up.	<p>Changes (from grade 4 to grade 5) Look at the content and skills from grade to grade. List what changes in the standard.</p> <ul style="list-style-type: none">● Recognize that a force can be a <i>push</i> or a <i>pull</i>.● Explain that a force can cause changes in speed.● Explain that a force can cause changes in direction of motion.
---	---

Important findings that affect my instruction and assessment

Studying the Standards Personal Standards Activity Worksheet

Look at the changes from grade to grade listed above.

- Conduct experiments to demonstrate that different objects fall to earth unless something is holding them up.
- Investigate the effects of a force on objects of different shapes and sizes at the developmental level.

Implications for instruction and assessment

What needs to be done differently to ensure students have met the standard and are ready for the next year?

- Make sure the students have plenty of chances to use scientific processes, including making predictions, conducting investigations, making observations, collecting and organizing data, conducting multiple trials to verify results, making comparisons, and drawing conclusions.
- Periodically have students graph their data and results, since it will appear in the 5th grade.