Science Virtual Learning

# 3rd Grade Forces and Motion

April 9, 2020

3rd Grade Science
Lesson: 4/7c/20

**Learning Target:**

I can make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

**Background:**

- Students learn to describe ways to change the motion and direction of an object and amount of force in 2nd grade.
- Students learn how to predict patterns of motions using Newton's Laws of Motions.

**Let's Get Started:**

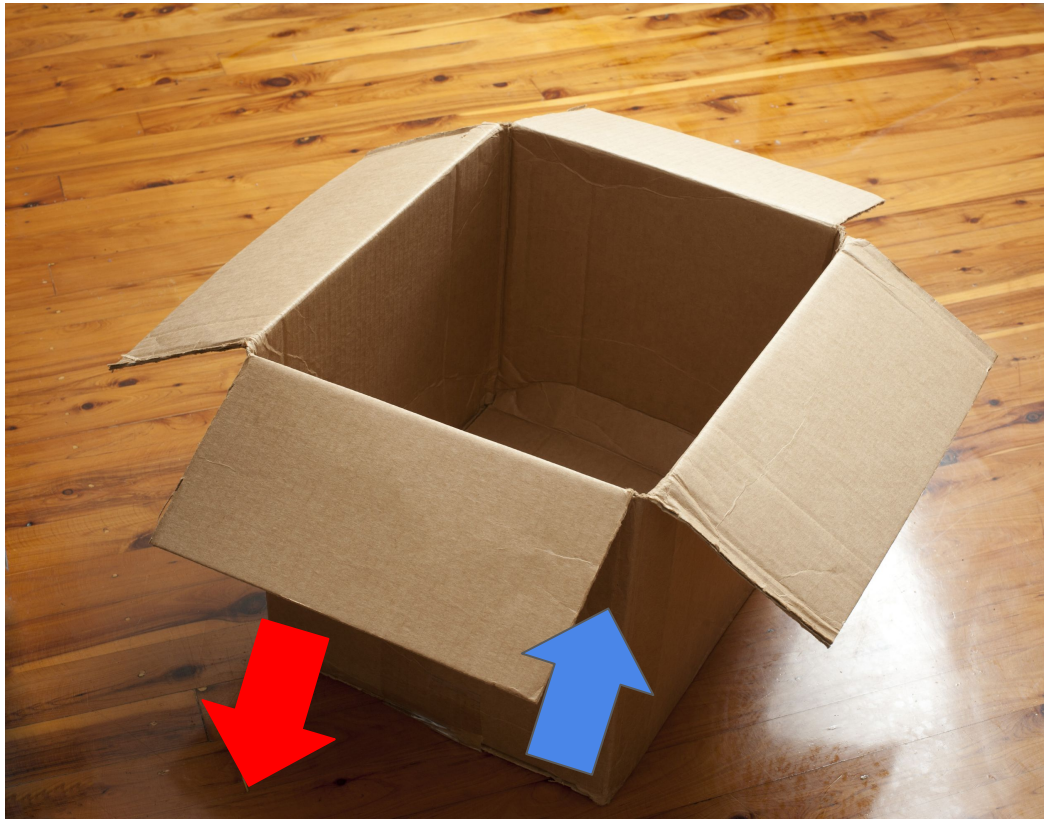
Watch Videos:

1. Anchor Lesson
2. Real Life Examples of Newton's Three Laws
3. Newton's Laws of Motion Song

# Practice #1:
## How is this picture showing Newton's Third Law of Motion?

**Think back to the** 

- Newton's Third Law says that for every action (force), there is an equal and opposite reaction (force).



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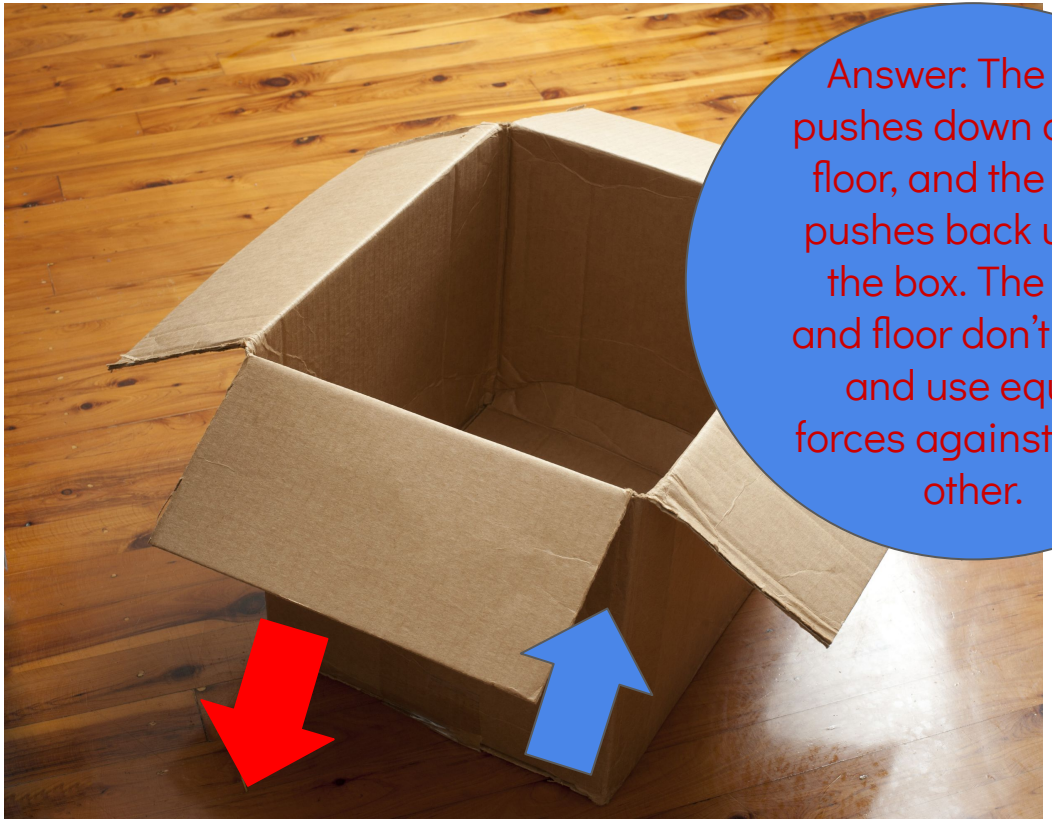


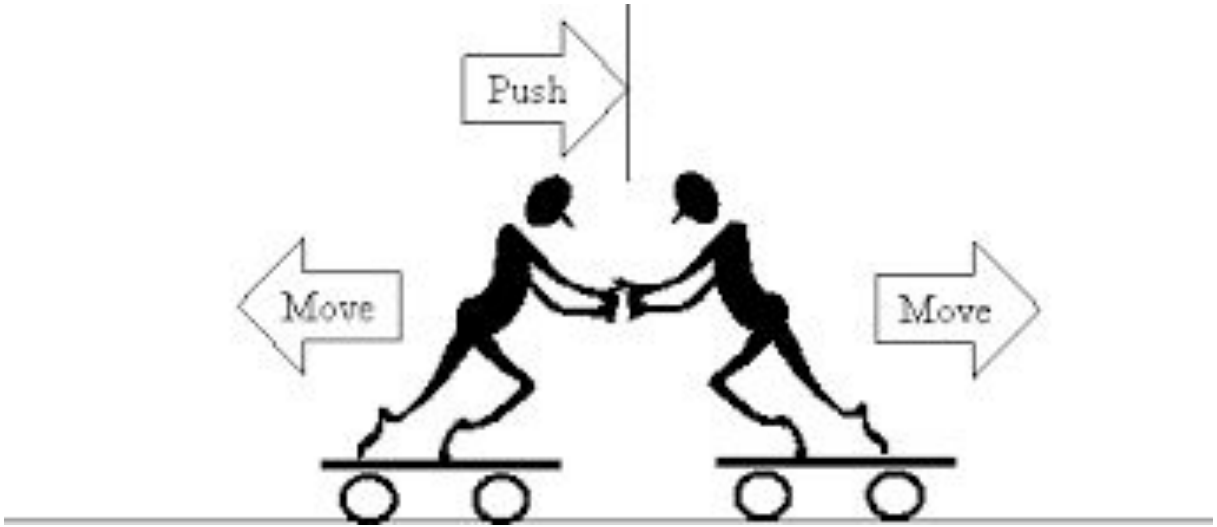
Answer: The box pushes down on the floor, and the floor pushes back up on the box. The box and floor don't move and use equal forces against each other.

# Practice #2:

## How is this picture showing Newton's Third Law of Motion? How do you know?

**Think back to the** 

- Newton's Third Law says that for every action (force), there is an equal and opposite reaction (force).



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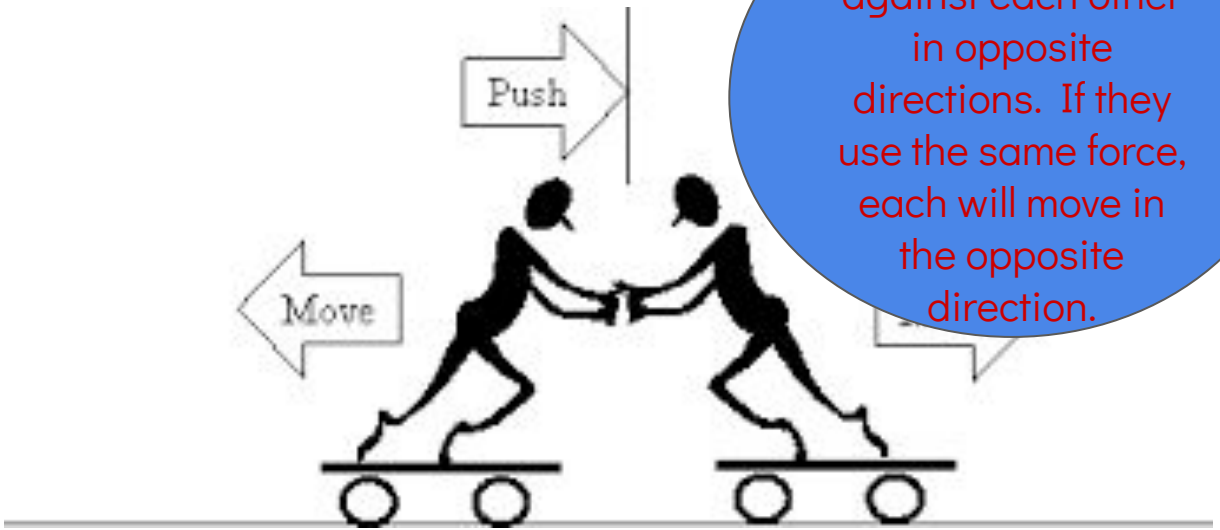


Answer: Each person pushes against each other in opposite directions. If they use the same force, each will move in the opposite direction.

# Practice #3:
## How is this picture showing Newton's Third Law of Motion? How do you know?

Think back to the

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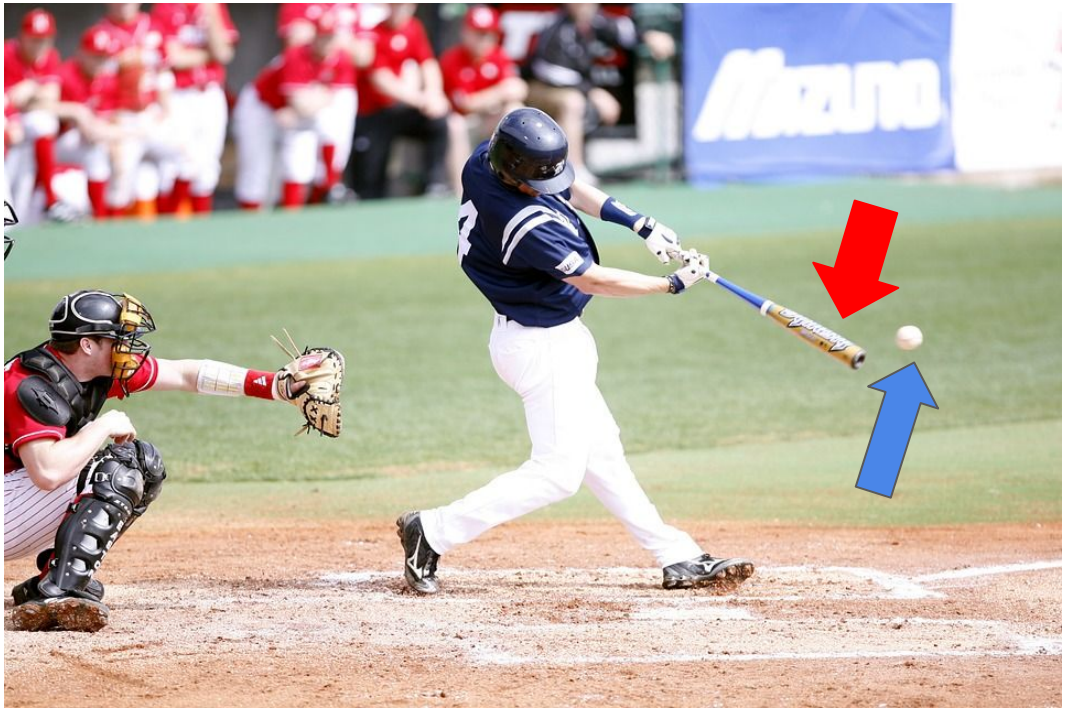

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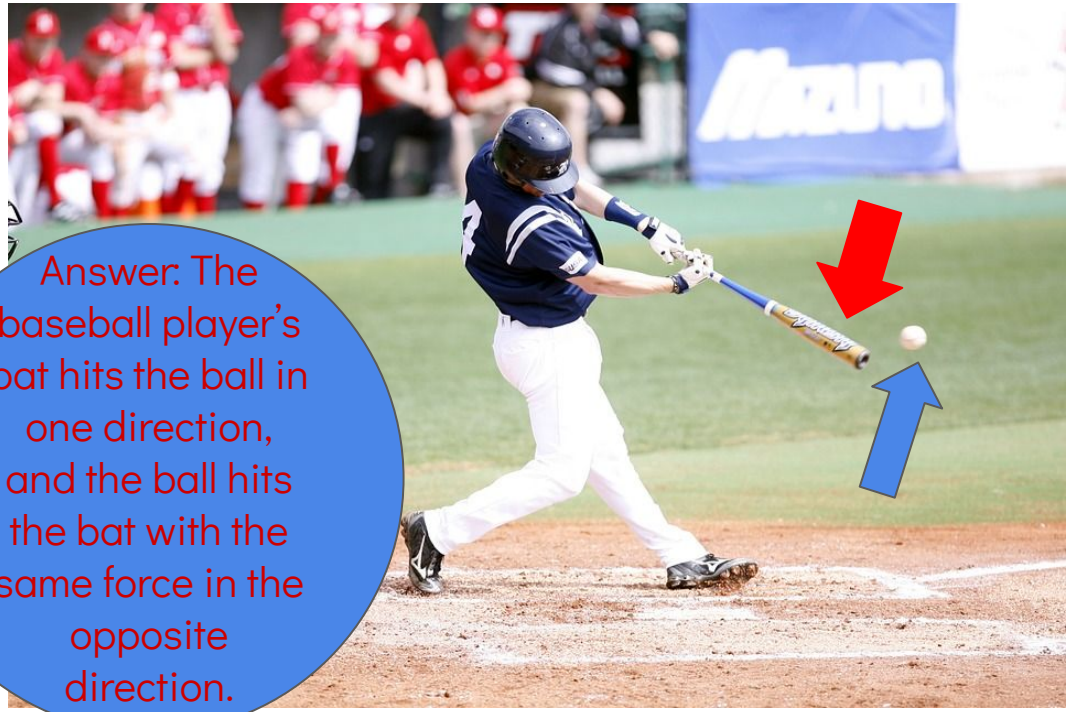


# Practice on your own:

Go to this website:

Action/Reaction

1. Click the link to the website to investigate one of Newton's Third Law of Motion.
2. Click on the green "play video" button and watch the video.
3. After watching the video, return to the previous page by exiting the video.
4. Click on the blue "test yourself" button to answer questions about the video.

# Practice:

Complete this page in your packet.

Come back to check sample answers on the next slide.

Newton's Laws of Motion

Forces and Motion- Newton's 3rd Law



**Directions:** Using what you know about Newton's Laws of Motion, create your own picture example and label it to explain of Newton's Third Law of Motion.

Newton's Third Law of Motion: For every action (force), there is an equal and opposite reaction (force).

My Example:

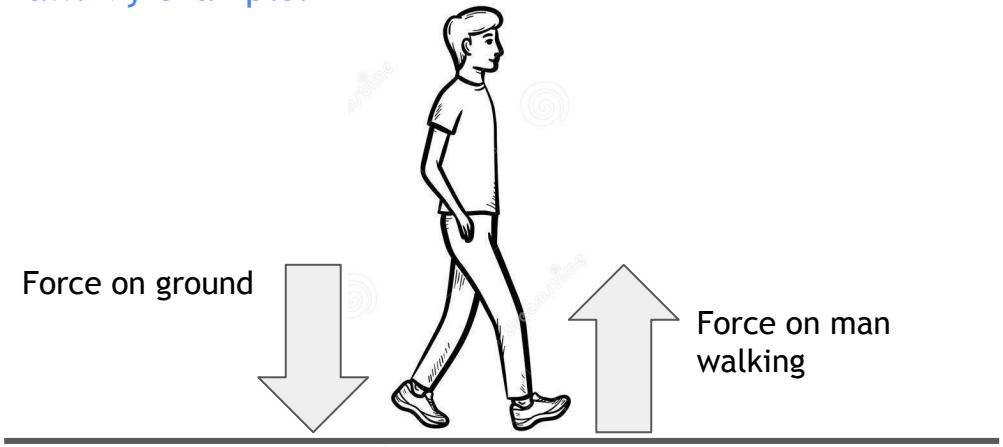
Write at least one sentence to explain your picture: _____

How does this show Newton's Third Law of Motion? How do you know?

Click here to open worksheet.

# **Practice:** Sample Answers

1. Using what you know about Newton's Third Law of Motion, create your own picture and label it to show Newton's Third Law. My example:




3.Write at least one sentence to explain your picture.

The man is walking and puts a force on the ground with his feet. The ground puts an equal amount of force on the man while he walks.

How does this show Newton's Third Law of Motion? How do you know?

Newton's Third Law of Motion says for every action, there is an equal and opposite reaction. The man is walking, which is the action. He puts force on the ground. The reaction is that the ground puts an equal amount of force on him, too.

# **Review:** Newton's Three Laws of Motion

Watch the video below to review Newton's 3 Laws of Motion.

**Self Check:**

1. This lesson was...
   - ❑ easy
   - ❑ just right
   - ❑ hard

2. Act out Newton's Third Law of Motion and show it to someone in your home!

**Go tell someone in your home your answers.**