

**STEM**  
*sports*<sup>®</sup>

science • technology  
engineering • math • sports

## **SOFTBALL**

**Module 3.0**

**Forces in Softball**

**GRADES 6<sup>th</sup> – 8<sup>th</sup>**





MODULE  
**3.0**



GRADES  
**6-8**

## What Do You Need?

### Supplies Provided

[Worksheets](#), Tape Measures  
and Softballs

### Materials Needed

Pencils and Softball Bat



## Test Your Knowledge

Have your students take this lesson's assessment prior to engaging by visiting: <https://stemsports.com/assessments/>. If you have limited digital capability, please email [Info@STEMSports.com](mailto:Info@STEMSports.com) to access the Assessment & Key.

# Engage

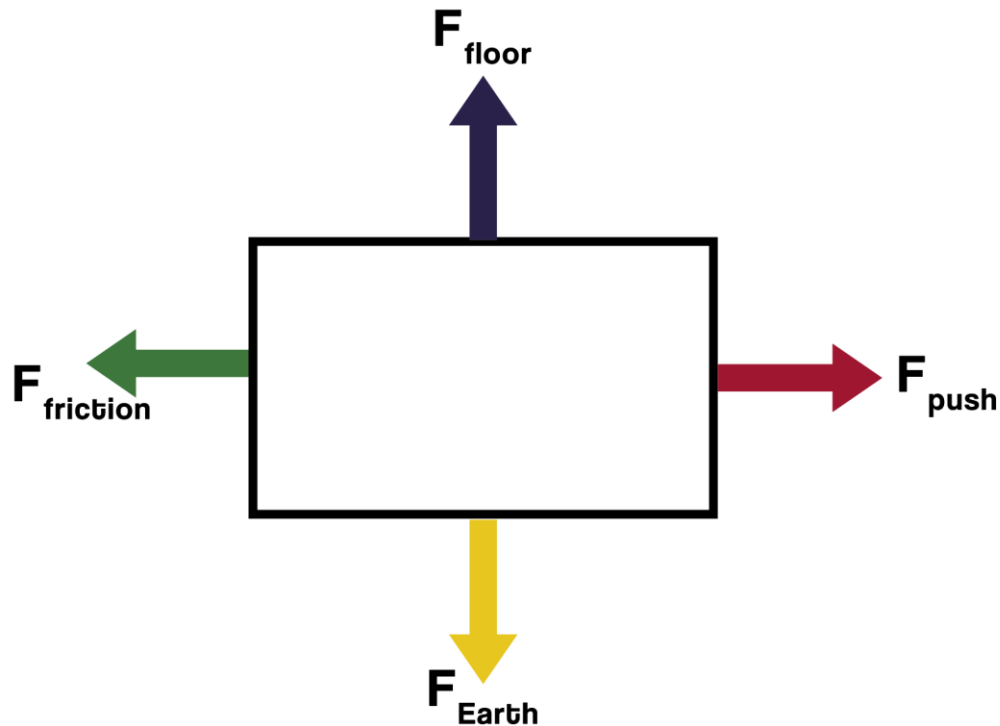
How does hitting a softball work? How can you increase the speed and distance of the ball?

# Explore

Conduct an experiment measuring the total distance with a full swing. Use the [worksheet](#) as a guide.



# Explain



The force acting on the ball is Gravity and air resistance. When the ball is hit, there is a hitting force as well.

## Elaborate

Conduct an experiment measuring the total distance the ball travels when hit with a full swing vs. a bunt swing. Use [worksheet](#) as a guide.



# Evaluate

Using the [worksheet](#), answer questions from your experiment.

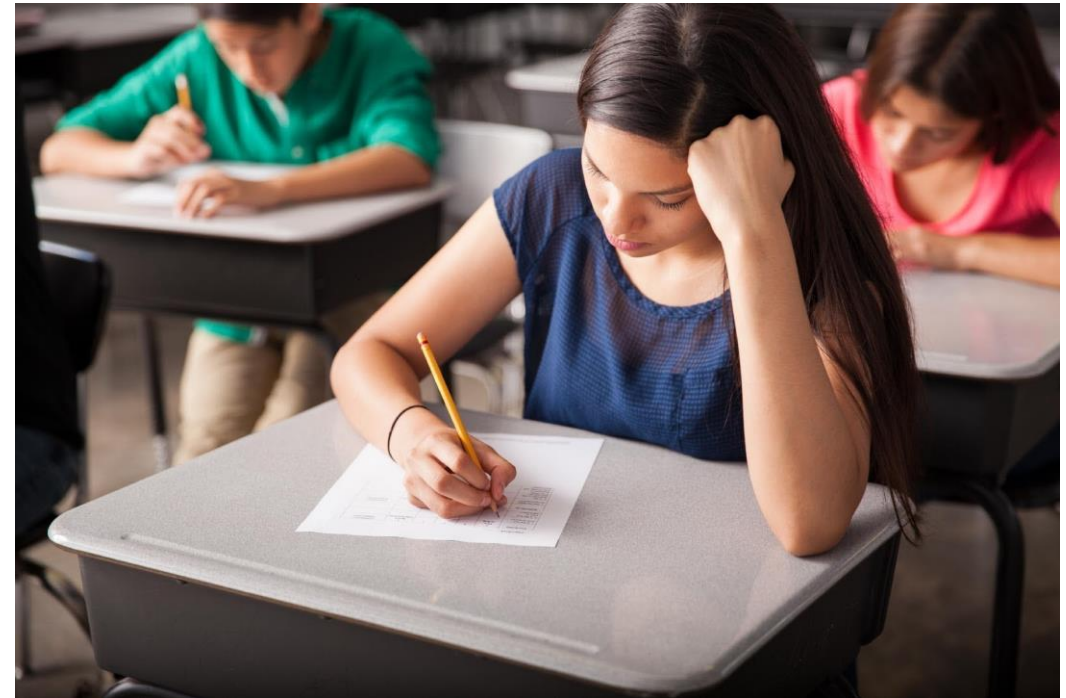




## What Did You Learn?

Have your students retake this lesson's assessment to effectively evaluate their comprehension by visiting:

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**Extend**

## **Challenge Yourself!**

Make and test a hypothesis on how a lighter versus heavier ball would change the forces acting on the ball.



# What is your Dream Job?

## STEM Jobs in Sports

- Assistant Softball Coach
- Youth Sports Director
- Sports Physicist
- High School: Softball Sports Theory Teacher
- Softball: League Director

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