



STEM
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science • technology
engineering • math • sports

STEM Tennis

Module 5.0

May the Force Be With You!

GRADES 3rd – 5th



MODULE
5.0

GRADES
3-5

What Do You Need?

Supplies Provided

[Worksheets](#), Tennis Rackets, Tennis Balls, and Radar Gun

Materials Needed

Pencils and Smartphone or Tablet



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 to access the Assessment & Key.



Fun Fact

The average age of ball boys and girls serving in Wimbledon is 15 years old. Approximately 250 youth are selected to serve in the tournament each year.

Engage

Why are some hits in tennis faster than others?



Explore



Conduct an informal experiment to better understand the fastest hit type: Overhand serve, Forehand hit, and Backhand hit.

Explain

Learn about key vocabulary terms of Balanced and Unbalanced Forces and how each applies to the game of tennis.



Elaborate

Using the [worksheet](#) as a guide, get on the court and measure which hit type is fastest.

Evaluate

Draw a Force Diagram to demonstrate and explain how a larger unbalanced force will change motion.
Use the [worksheet](#) as a guide.



What Did You Learn?

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

<https://stemsports.com/assessments/>.

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Extend

Challenge Yourself!

Design a controlled experiment using your own independent variable to compare to the force generated from your tennis racket.



What is your Dream Job?

STEM Jobs in Sports

- Player Development, Assistant Coach/Hitting Coach
- Director of Junior Tennis
- USTA: Digital Product Manager
- Tennis Rackets: Impact Reporting - Graphic Design
- Summer Camp Tennis Counselor

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