



**STEM**  
*sports*®

science • technology  
engineering • math • sports

## **STEM Tennis**

### Module 6.0

## Stroke of Energy

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



# Module 6.0

GRADES  
**6-8**

## What Do You Need?

### Supplies Provided

[Worksheets](#), Tennis Balls, Tennis Rackets, Sweet Spot Ball-Striking System and Manual, Tape Measures, and Digital Stopwatches  
Extend Only: Radar Gun

### Materials Needed

Pencils, Calculator  
(recommended)





## 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.



## Fun Fact

The fastest serve recorded was 163.4 miles per hour or 73 meters per second.

# Engage

How fast can you  
hit a tennis ball?



**Explore**

Set-up the *Sweet Spot  
Ball-Striking System*  
and work on your game.  
Use the [worksheet](#) as a guide.

# Explain



Define key terms of Kinetic Energy and Velocity. Explain how to calculate each.

## Elaborate

Using the [worksheet](#) as a guide, calculate velocity and kinetic energy.



# Evaluate

Use the [worksheet](#) as a guide to construct a graph.



## What Did You Learn?

Have your students retake this lesson's assessment to effectively evaluate their comprehension 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.





**Extend**

## **Challenge Yourself!**

Use the radar gun to measure the speed of your hit. Compare to your previous calculations.



# What is your Dream Job?

## STEM Jobs in Sports

- General Manager: Tennis Club
- Tennis Pro: Youth Trainer & Coach
- Baseball Scout
- Tennis Racket Engineer
- High School Physics Teacher and Track & Field Coach



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