



science • technology engineering • math • sports

VOLLEYBALL

Module 4.1
Calculating Total Force

GRADES 6th - 8th



What Do You Need?

Supplies Provided

Worksheets, Recreation Volleyballs and Radar Gun

Materials Needed

Smart Phone or Tablet and Pencils







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.





Why do some serves in volleyball move faster than others?





Conduct an informal experiment to determine how to increase the speed of a serve.



Explain

Learn the importance of acceleration and force in volleyball, and how Newton's 2nd Law applies: M = FA







Conduct a controlled test and collect data to determine acceleration and force of each serve.







How does a change in force affect a change in motion?
Use the worksheet.





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 to access the Assessment & Key.







Challenge Yourself!

Design your own controlled experiment using other independent variables.





What is your Dream Job?

STEM Jobs in Sports

- Performance Coach
- Mechanical Engineer
- Videographer
- Systems Engineer
- Sports Statistical Analyst





To access Worksheet Keys, please visit www.STEMSports.com/digitaltools



Want to continue the education? Visit us at https://stemsports.com/ OR Tag us @stemsportsusa













