

STEM
sports[®]

science • technology
engineering • math • sports

Lacrosse
Module 5.0
Predicting Potential Energy

GRADES 6th – 8th

MODULE
5.0

GRADES
6-8

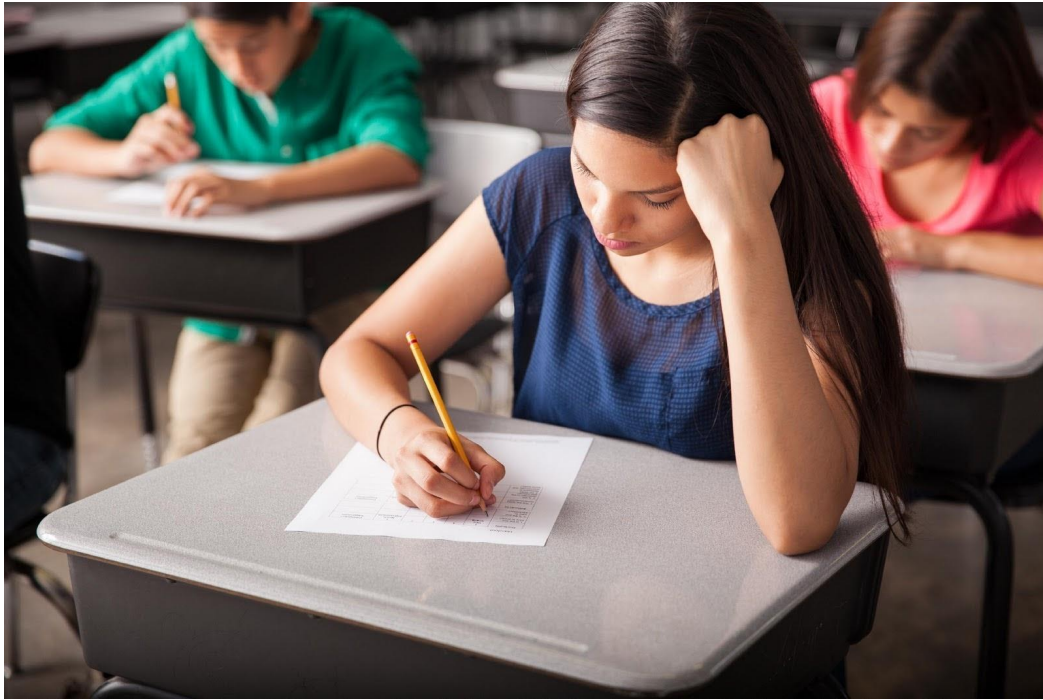
What Do You Need?

Supplies Provided

[Worksheets](#), Lacrosse Balls,
Lacrosse Sticks, Tape Measures,
and Disc Cones
Extend only: Digital Stopwatches

Materials Needed

Pencils, Calculators, and
Tablet or Smartphone



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.

Engage

When is energy being used in Lacrosse and when is energy being stored?

Explore

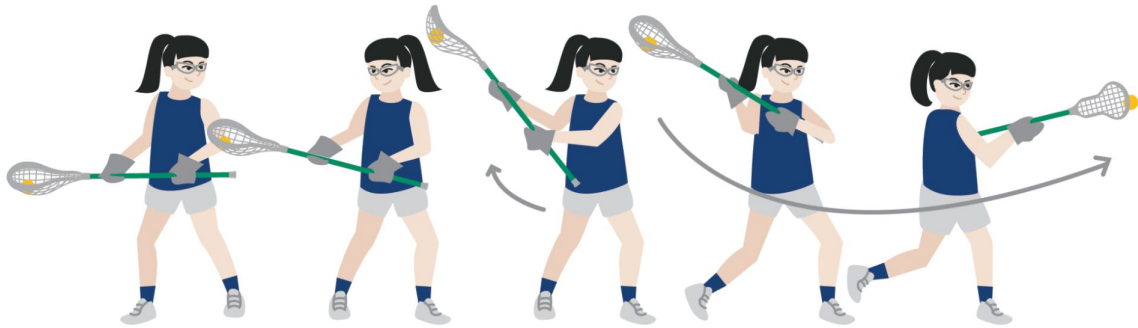
Diagram the position of the stick and your bodies during a shot or pass. Using a tablet or smartphone, record and watch your mechanics in slow motion to support your diagram.

Explain

Learn about the relationship between Kinetic and Potential Energy in a system.

$$PE = mgh$$

Elaborate

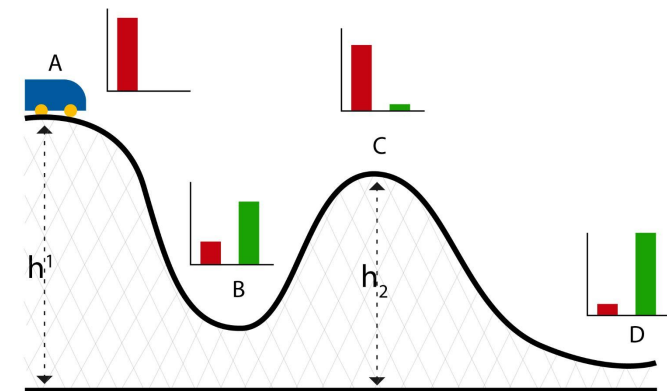


Where does potential and kinetic energy occur when passing/shooting the ball? Use the [worksheet](#) as a guide.

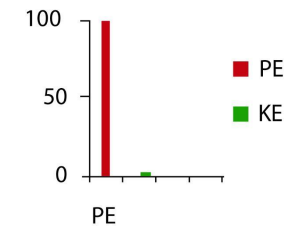
Evaluate

Using the [worksheet](#) as a guide, select another “energy stored” situation and draw and label your diagram.

Example Diagram Representing PE and KE



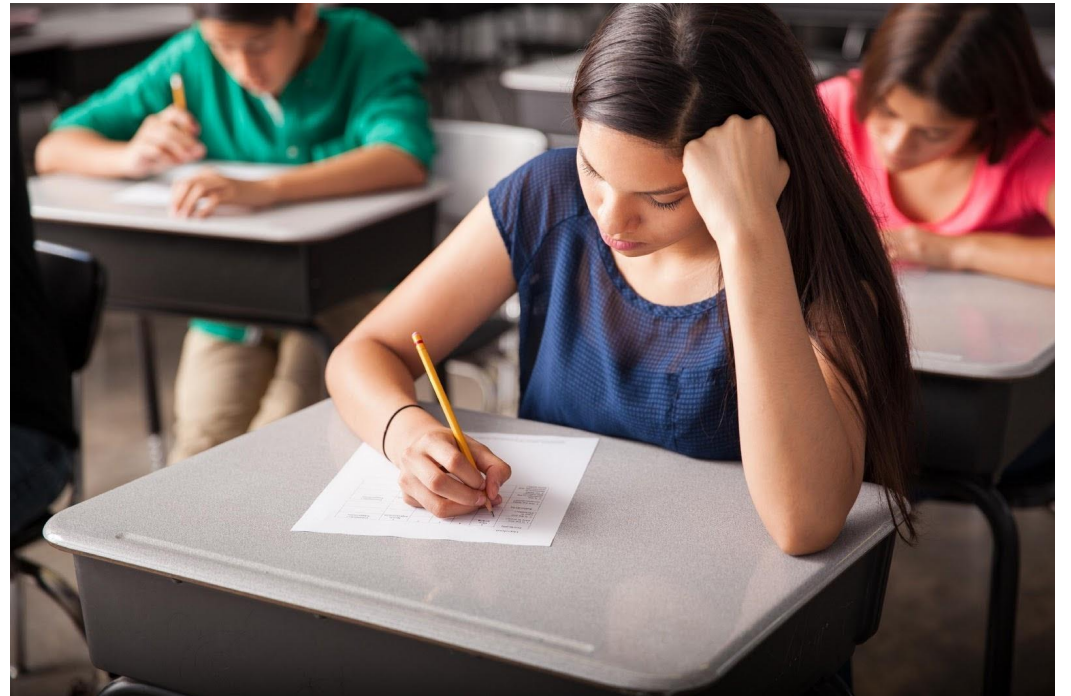
At point A, a bar graph for PE and KE would look like this:





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.



Extend

$$KE = 1/2 MV$$

Challenge Yourself!

Measure the velocity of the ball at the release point by measuring the distance and time.



What is your Dream Job?

STEM Jobs in Sports

- Performance Coach
- Lacrosse: Equipment Engineer
- Lacrosse: College or Professional Scout
- Sports Metric Analyst
- High School Physics Teacher and Lacrosse Coach

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