

**STEM**  
*sports*<sup>®</sup>

science • technology  
engineering • math • sports

## **BASEBALL**

Module 5.0

Engineering a  
Pitching Machine

**GRADES 3<sup>rd</sup> – 5<sup>th</sup>**



MODULE

5.0

GRADES  
3-5

## What Do You Need?

**Supplies Provided**

Worksheets,  
Baseballs and Tape  
Measures

**Materials Needed**

Pencils and Graph Paper  
Prototype Materials: cardboard  
PVC piping, string, paper towel  
rolls, glue, or tape, etc.



## 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 can you improve your swing and hitting skills?

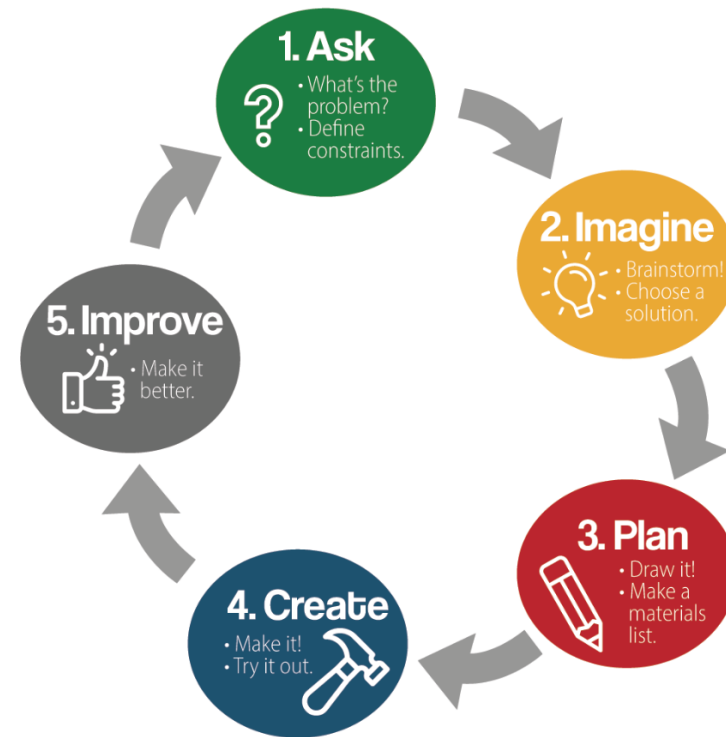
# Explore

What are some challenges  
hitters face to improve their  
hitting skills?

# Explain

Learn about the importance of Criteria and Constraint to effectively solve problems.

## Engineering Design Process



# Elaborate

Using the [worksheet](#) as a guide, create a device to ensure placement, speed, and movement of pitches.



# Evaluate

Was your design successful or not? Present to your classmates with evidence to support its success.





## 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!**

Research existing pitching machines, and plan and build your designed prototype using their design.



# What is your Dream Job?

## STEM Jobs in Sports

- Assistant Baseball Coach
- Stadium: Operations Manager
- Youth Sports Director
- Sports Manufacturer
- Product Development Scientist

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education? Visit us at  
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