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BASKETBALL SHOT TRACKING

STEAM Activity

The American Heart Association recognizes the importance of building healthy bodies and minds. This STEAM activity is an introduction to science and math concepts particularly in the area of Physics.

Objective:

Students will compare fractions based on their free throw accuracy by using the greater than and less than symbols.

Materials Needed:

- Basketball
- Pencil
- Stopwatch
- Calculator

Believe it or not, the 3-pointer wasn't part of the NBA game until the 1979 season. The 3-point line was introduced that year on a trial basis but proved to be popular among players and fans.

Discussion questions:

- Who can explain what a "free throw" in basketball is?
- What muscles are used in a free throw?
- How do you think a person becomes really good at shooting free throws?
- Do you think science is involved in playing basketball? Why or why not?
- Do you think there is a correlation between a person's height and free throw percentage?

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Grades 3-5

Shot Tracking

Student Name:_____ Teacher:_____ Date:_____

Activity:

1. Have students practice their free throws.
2. Next talk through tips on how to improve accuracy and the mechanics to follow.
   - ***Optional:*** Test whether it is best to shoot from the chest, from the chin or over the head.
3. Ask students to predict how many free throws they can make in 60-seconds.
4. In small groups, have students take turns to determine how many free throws they can each make in 1 minute, while filling out the worksheet.
5. Rotate and repeat each trial three times and then calculate the percentage made column by dividing the free throws made by the free throw attempts, then multiplying by 100.

Name	Free Throws Made	Free Throws Attempted	Free Throw %
Space to enter	Space to enter	Space to enter	Space to enter
Space to enter	Space to enter	Space to enter	Space to enter
Space to enter	Space to enter	Space to enter	Space to enter
Space to enter	Space to enter	Space to enter	Space to enter

Post Activity Group Discussion:

- Players should practice when they're exhausted, fresh, and somewhere in between. Did your free throws improve or get worse?
- Do you think that you would have had a greater success rate shooting more frequently or taking more time to carefully prepare for a shot?
- How accurate was your hypothesis of how many free throws you can make in 60-seconds?
- What made this activity harder or easier?
- What are the variable or different things that can change whether the basketball will go in the hoop or not?