Basketball Project Kit

Congratulations! You're going to or participating in a basketball game! Use these project ideas to enrich your educational experience. Read through them before you go to make sure you understand the terms and concepts, and to help you determine if you want to expand upon any of them. You'll find fun facts and printable worksheets at the end of this packet.

a- elementary level activity b- middle school level activity c- high school level activity

Language Arts

Learn the what sports and activities Rush offers and practice your writing!

a. Draw or write the basic rules or guidelines of a basketball game. How do you score? Explain fouls and penalties. How many players are on each team? If you played, what position did you play? What are the other positions called and what do they do?
b. Write an outline of what happens during a basketball game. Include who, what, where, when, and how.
c. Imagine you are a sports announcer and write a short narrative based on something you saw or did. Include stats, and try to use language that you've heard real sports announcers using. Do they speak differently and use different tone inflections? Why?

Materials required: Notebook, pen/pencil
Submission: A copy of your writings/drawing, and any pictures/videos

Teaching or learning notes:

Applied Math

Basketball requires a good working knowledge of math!

a. Go on a shape hunt! Find all the shapes you can, and create a short report with pictures/drawings of the shapes you found, their use, and importance.
b. Draw a diagram of the basketball court, arena, or area including all important features for the sport. Look up the standard distances and include those on your diagram. Do professional courts differ from amateur courts or school courts? Be sure to use the details for the court you visited. Include arrows or other descriptive marks and a legend.
c. Discover the math behind basketball. Choose one aspect and write about how math is needed to do well at basketball. Include examples of the math, when it's used, and why it's important.

Materials required: Notebook, pen/pencil, calculator or smartphone (optional)
Submission: Your calculations, estimations, and conclusions, and any pictures/videos

Teaching or learning notes:

Science

Physics is important in basketball too! Explore the science behind basketball.

a. What is physics and how it is important to the game of basketball? Do a little research and write or draw about your answers.
b. Pay careful attention to some of the plays or events during the game. Describe how concepts like inertia, bernoulli's principle, gravity, force, and mass affect a basketball game or player's performance.
c. Complete step (b) from above but include diagrams with vectors and equations where possible.

Materials required: Notebook, pen/pencil
Submission: A copy of your drawings, diagrams, maps, or designs, and any pictures/videos

Teaching or learning notes:

Social Studies

Basketball has a rich past that has been intertwined with many important events in our country's history. Take time to explore the history a little deeper!

a. How did basketball start and when? Draw or write about your findings.
b. Draw a timeline of important events in basketball. Include other events in U.S. History on your timeline to see how basketball changed with our society.
c. Research one event in basketball's history which made national headlines. When did it happen? Why? Who was involved? Why did it make big headlines? Write a short essay about your findings.

Materials required: Notebook, pen/pencil
Submission: A copy of your writings/drawings, and any pictures/videos

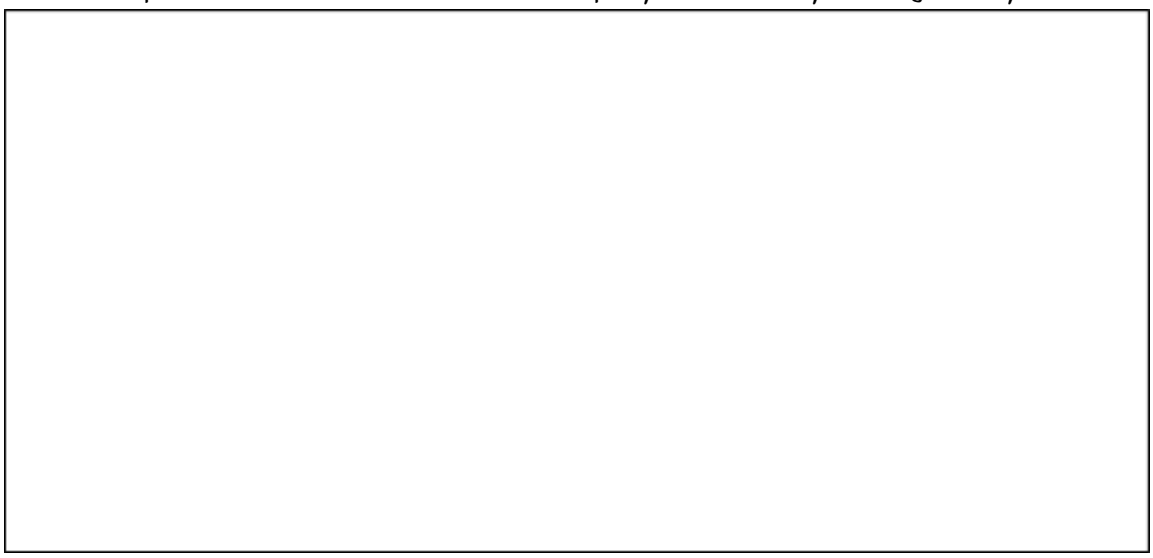
Teaching or learning notes:

Fun Facts

- Canadian James Naismith (1861–1939)—a physical education teacher from Springfield, MA—invented the game of basketball in 1891 when he was looking for ways to keep his gym class busy on a rainy day.
- The first basketball hoops were peach baskets with the bottom intact. Officials had to get the ball out after each basket. The first string nets were used in the early 1900s.
- Initially, dribbling was not a large part of the game. Players would catch the ball, be allowed a few steps to slow down, stop, and then throw the ball from that spot. Once the modern basketball was invented in the 1950s, dribbling became a crucial part of the game.
- The Basketball Association of America and the National Basketball League merged on August 5, 1976, creating the National Basketball Association (NBA).
- A warm basketball is bouncier than a cold one because the molecules in the warm ball hit its inside surface at a higher speed.
- In the 2010–2011 season, the Cleveland Cavaliers set a league record by losing 26 basketball games in a row.
- Founded in 1923, the Sacramento Kings are the oldest franchise in the NBA. The second oldest is the Detroit Pistons, founded in 1941.
- The NBA All-Star Game at Cowboys Stadium set a record for the most-attended basketball game ever, with a spectator audience of 108,713 people.
- Adidas manufactures all the NBA uniforms.
- The smallest city that has an NBA franchise is Salt Lake City.
- The average height of all NBA players is just under 67 inches for the men and just over 57 inches for women.
- No other sport has more injuries than basketball, and the most common basketball injury is a sprained ankle. However, knee inflammation is the injury that causes players to miss the most games.
- NBA players run as much as four miles during a game.
- All NBA courts are made of maple wood, which is strong but also flexible, to help players jump and land safely.

Basketball

1. Draw a picture of the basketball players' (or your) jerseys.



2. Describe your favorite moment of the game and why.

3. What is one new thing you learned about the traditions or superstitions of basketball?

4. Draw or describe one example of engineering you saw.

5. Describe or draw one part that was really exciting.

6. Explain the purpose of some of the equipment used in basketball.

BONUS:

Find out the/your team's mascot. Research more about it/him/her. How was that mascot chosen? Does the mascot have it's own name or just share the team name? What are the requirements for the person who performs as the mascot? Does the mascot have a big presence in the game experience? Is it/he/she a regular appearance at all games or only promotionally? Describe the changes the mascot has had over the years or has the mascot always stayed the same? What was your opinion of the mascot?