



Tips for Parents

Kids love sports and sports give you plenty of opportunities to use math in ways that enhance the experience. Here are some tips from CYBERCHASE, the action adventure cartoon series on PBS KIDS GO! (check local listings) for how to engage your child in the fun of sports while reinforcing important math concepts.

Can You Guess Where the Ball Will Be Hit?

While watching a baseball game, you and your child can make it interactive. Discuss favorite players, and raise the question, "I wonder if we can guess where the batter will hit the ball?" Make several rough sketches of baseball diamonds, and when a player comes up on your team, put an 'X' where he hits the ball. Then the next time at bat, put a coin where you think the ball will be hit. See if the coin is in the area where the player hit it. Both of you discuss your decisions and where the ball might be hit next time. Hint: in the outfield use left, center, and right fields and in the infield use to the left or right of second base. Keep the papers and do it again for other games. You may see that certain players have patterns as to where they hit the ball. This will give your child practice in keeping and interpreting data.

People make pictures of plays in sports?

Kids play soccer, football or basketball in school and in after-school programs. Often they don't realize that they can use a diagram, a picture or sketch, to help communicate where players are to position themselves and how they are to move. While watching a game on TV, pick a player and see if you both can sketch where he went. Keep the sketch simple. Compare your drawings and talk about what the drawing is saying. Switch drawings and interpret them. If you have recorded the play, rewind and discuss how your drawing did/didn't represent what happened. Talk to a coach to see how they use diagrams. Making and interpreting diagrams is an important concept in mathematics.

How Did You Judge Who Won?

It is easy to look at the final scores or times in many sports like baseball, hockey, basketball, track, swimming and soccer to determine the winner. Scoring sports like Gymnastics, Diving, Ice Skating, Snow Boarding, and Ballroom Dancing follow different scoring procedures. When participating or watching a sport, talk with your child about the process of determining the scoring. Mention that the judges have to decide what categories are important, assign levels of achievement with a number, and then judge each performer in terms of the points assigned to each category. Each judge will not have the same score as they might 'see' and rate things differently. Raise questions with the child so they gain insight into what is fair and why there is a variance in the judge's scores. Determining categories, weighting them in terms of points allotted, and getting several scores to find the winner involves a lot of mathematical thinking.

Shapes in Sports

When viewing a game discuss with the child how many geometric shapes can be identified. Like in baseball, the diamond is really a square if you rotate it. And each base is a square. There is a Batter's Circle on the 1st base and 3rd base line. The batter's box is not really a box (a box has 3 dimensions) but it does have 2 rectangles. Home plate has 5 sides, a pentagon. Relate all shapes to other things they have seen. A 5-sided shape is like a 'Yield' sign, it is the shape of the "Pentagon" building and is part of the design of a soccer ball. (The black parts are pentagons, the white parts are hexagons (6-sided) - oh, the ball is a sphere! It is a lot of fun to see how geometric shapes play an important part in every sport.