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Probability Lesson Plan

Standards:

6.4.1.2- Determine the probability of an event using the ratio between the size of the event and the size of the sample space: represent probabilities as percent’s, fractions, and decimals between 0 and 1 inclusive. Understand that probabilities measure likelihood.

Objectives: Students will be able to explain the differences between theoretical and actual probability.

Students will also be able to apply probability to the decisions they make.

Launch:

Ask students if they have ever gambled before? In what ways have you gambled? What type of things have you gambled? For those of you who haven’t gambled do you want to? Well good gamblers know all about probability and how to beat the odds! Do you guys want to be good gamblers? Well good gamblers would know that probability of getting a heads on a quarter. So what is the chances or probability of me getting a heads? 1 out of 2 right? Because there are two sides to a coin a heads and a tails. Does anyone want to bet with me on whether this quarter lands on heads or tails? Ok you call it in the air if your right you get to keep the quarter and if your wrong I keep the quarter. Flip and see what you get and either keep the quarter give it but if you lose tell the student double or nothing. Which means that if we do it again and you win again you will give them two quarters but if they lose they get nothing. Hopefully they lose and you can keep the coins and show them the dangers of gambling. Then move on to dice by saying another thing that gamblers use all the time is dice. What is the probability of rolling a one on a dye? 1/6 right? Ok well were going to play a little gambling game with dice

Explain:

Explain the activity to the students. Explain how to play the game and the rules of the game so the students know what is going to on in the lesson.

Explore:

The activity is called “Defy the Pig.” This activity involves the probability of rolling a die. The number 1 on the die is called the pig. The teacher or a student will roll the die in front of the class. If the dice comes up a 2 – 6 the students will be able to get those points. The students can then decide to continue playing the game and gamble, or take the points that they have and stop. If the die comes up as a 1 the students that are still playing/gambling will lose their points. The students that have stopped will be going on to the next round. 3 rounds will be played and the student with the highest total is the next roller. Keep playing until the pig burns them!

Summarize

To summarize the lesson talk to the students about the activity that they just did and what it has to do with probability. Ask the students about what the activity? What was the probability of rolling a one again on the dye? Do you think you could go home and play this with your friends or parents?