

MATH IN OUR LIVES: PROBABILITY STUDY GUIDE

VOCABULARY

Forecast	A prediction of what will happen in the future.
Probability	The measure of how likely a certain event is.
Outcome	The possible result of a probability experiment.
Experiment	A test that is repeated to detect patterns and learn new information.
Data	A collection of results from an experiment.

COMPREHENSION QUESTIONS

What does probability tell us?

How is probability expressed?

What is another way to say that something has a fifty percent chance of occurring?

Does getting heads once in a coin toss experiment impact the probability of getting heads again?

What does it mean if a particular event has a probability of 0. A probability of 1?

How do you calculate the probability of consecutive events occurring?

When students pulled colored tiles out of a bag of 20 tiles, how is it that the probability of pulling each color was $\frac{1}{4}$?

What happens to the probability of pulling a particular color when the students keep their tiles, rather than put them back into the bag?

FOLLOW UP ACTIVITIES

Students can work backwards, creating spinners to match clues describing probability. For example, “on this spinner you are twice as likely to land on 4 as on 2.”

Students use their knowledge of probability to analyze the fairness of different games involving two independent events, such as rolling two number cubes. Does each player have an equal probability of succeeding in the game? How can the rules be changed to make it more fair? Less fair? Students may go on to create their own games of chance.