Ames Public Library @HOME Activities

Probability and Chance

We use math every day! Probability is a part of a branch of math called statistics. Probability measures how likely it is something will or won't happen. To learn more see a related video on the Library's YouTube Channel at http://bit.ly/APLvideos.

Books and Media:

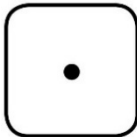| Title	Author / Performer	Call Number
Pigs, Cows, and Probability	Aboff, Marcie	ETR 519.2 ABO
All about Probability	Mooney, Carla	ETR 519.2 MOO
What is the Point of Math?	Davis, Ben Ffrancon	J 510 DAV
How To Be a Math Genius: Your Brilliant Brain and How to Train It	Goldsmith, Mike	J 510 GOL
How To Be a Math Wizard	Imafidon, Anne-Marie	J 510 IMA
Using Math in Science	Mapua, Jeff	J 510 MAP
Math Dictionary for Kids: The Essential Guide to Math Terms, Strategies, and Tables: Grades 4-9	Fitzgerald, Theresa	J 510.3 FIT
The Usborne Illustrated Dictionary of Math	Large, Tori	J 510.3 LAR
The Manga Guide to Statistics	Takahashi, Shin	J 519.5 TAK
Bill Nye the Science Guy: Probability	Nye, Bill	J 519.2 (DVD) NYE

Websites:

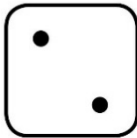| URL	Notes
https://www.superteacherworksheets.com/probability.html	*This site contains a variety of worksheets, including ones on probability.*

Take Away Kit: Roll a plant challenge

Bag Contents:
- 1 Foam cube die
- 2 pieces of cardstock

A die is a great device to explore probability. This die has six sides or faces, so there is a 1/6 chance of rolling any of the numbers. However this does not mean all six rolls will be different. To see this at work let's play a game. Look at the legend below, each number on the die corresponds to the part of a plant. Can you estimate how many throws it would take to draw a complete plant? Roll the die and then draw the corresponding plant part to find out!

Draw a Flower

Draw some Leaves

Draw a Stem

Draw a Fruit

Draw some Roots

Draw some Soil or a Pot

Vocabulary

Chance – Chance refers to how likely it is for something to happen; it is more of a guess and not calculated mathematically. Chance is used in everyday language.

Estimate – It means to assess or judge something; it precedes the actual measuring, counting, or testing.

Experiment – A repeatable procedure with a set of possible results.

Event – One or more outcomes of an experiment.

Mean – Is the average value of a set of numbers. It is the sum of all the numbers in a group divided by the number of individual numbers.

Median – In a group of numbers arranged numerically it is the number that is exactly in the middle.

Mode – Is the group of numbers that appears most often. There can be more than one mode in a group of numbers.

Predict – Is a reasonable guess as to what will happen.

Probability – In math, probability is a mathematical way to calculate how probable it is for an event to happen or not happen. Probability is expressed in numbers.

Outcome – A possible result of an experiment.

Sample – It is a small part of the population that is being studied.

Statistics – This a branch of math that involves gathering information, studying it, and deciding what it means.