

Home Activities: Probability

We have been learning about probability. Here is a list of some of the skills and concepts we have studied.

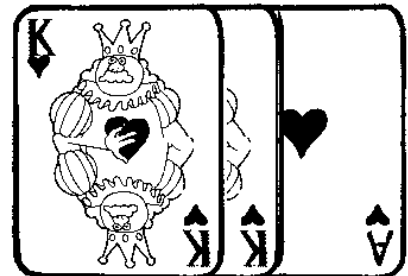
- ◆ Probability
- ◆ Making predictions
- ◆ Geometric models of probability
- ◆ Tree diagrams
- ◆ Compound events
- ◆ Fairness and unfairness

Home Activities

Here are some activities you can do with your child that use these math skills and concepts.

Select ten cards from a deck of cards that you have in your home. The cards may be picture cards or they may come from a standard deck of cards. All of the cards can be different or you may select combinations of cards. If playing cards are unavailable, use some index cards to make ten cards with numbers or drawings. Show the cards to your child. Discuss the probability of selecting each card. The probability will be $\frac{1}{10}$ for each card if all of the cards are different. If some of the cards are the same, the probabilities will be different. Have your child make a list of the probabilities of each card. Then use the list of probabilities to make a prediction about which card would be drawn for a card selected at random. Finally, mix up the cards and have your child select a card without looking. Discuss how the results compare to the prediction and whether or not you and your child were surprised and why.

Your child can find the probability using the following ratio: number of favorable outcomes/total number of outcomes. For example, if there are 2 kings, 4 queens, 3 jacks, and 1 ace, the probabilities for selecting the cards at random are: $P(\text{King}) = \frac{2}{10} = \frac{1}{5}$, $P(\text{Queen}) = \frac{4}{10} = \frac{2}{5}$, $P(\text{Jack}) = \frac{3}{10}$, and $P(\text{Ace}) = \frac{1}{10}$.



Extend the activity using different combinations of cards. Record predictions and actual results and discuss how they compare.