**Probability Webquest**

In this WebQuest, you will be learning things like how to find the probability that:

* a flipped fair coin will land heads up
* you choose a green marble from a bag of different colored marbles
* you choose a heart from a standard deck of cards
* you roll an odd number on a single fair sided die
* you spin and land on the number 7 on a spinner that has 8 equal spaces

You will be working on this WebQuest during class today and tomorrow.  All work will be due at the end of class tomorrow, so use your time wisely.

So, are you ready to learn all about the basics of probability? Let's get started!

First things first.  Open up the Activity Worksheet by downloading the attachment at the bottom of this page.  You will need to fill this out as you go through this WebQuest. You will be printing this and turning it in when you are finished. Make sure your name is on it if you want to get credit!

1) Let's start things out by watching a video about basic probability. Click [here](http://www.khanacademy.org/math/precalculus/prob_comb/basic_prob_precalc/v/basic-probability) to get to the video. On your worksheet, you'll need to write down the equation for probability, as stated/written by the man in the video.

2) Now that you've learned the equation for probability, you'll need to learn some of the terms.

Click [here](http://quizlet.com/35443427/probability-flash-cards/) to find those terms.  You will need to write the definition of the following terms on your worksheet:

* probability
* theoretical probability
* experimental probability
* outcome
* complementary event
* simple event

3) Let's watch another video.  This video is an example involving picking marbles from a bag.  Click [here](http://www.khanacademy.org/math/precalculus/prob_comb/basic_prob_precalc/v/events-and-outcomes-1) to get to the video. On your worksheet, write down what the probability of picking a yellow marble is for the example you just watched.

4)  How about a quiz to test your knowledge of basic probability? Click [here](http://www.khanacademy.org/math/probability/independent-dependent-probability/basic_probability/e/probability_1) to get the probability quiz. Your goal is to get 5 correct in a row.  If you get a question wrong, you will need to try again.  If you need a hint, click on the hint button.

On your worksheet, record how many questions you had to answer by the time you got 5 correct (on your first try, without a hint!) in a row. (Note: If you click on the hint button before submitting an answer, it will count that question wrong.  Only use the hint button if you need to!)

5) Check for understanding: Now I need to see that you have learned a little bit about basic probability.  On your worksheet, you will find 3 practice problems that you need to complete at this time.

6) Let's play some Jeopardy! Click [here](http://jeopardylabs.com/play/probability401). You will need to find one other student who is ready for this step as well. Each of you will need to answer every question on your own. Play until you have answered all of the questions.  Be sure to keep track of your own score.  Remember, if you answer a question incorrectly, you lose that amount of points. On your worksheet, you need to record your own score.  You also need to record who you played against and how much they scored.

7) Do you feel like you have a good understanding about basic probability?  I hope after going through this WebQuest, the answer is yes!

    Your final assignment is to create a quiz about probability. It needs to include the following:

* At least 10 questions total
* Of those 10 questions, 2-4 need to be about the vocabulary you learned in step 2.
* The remaining questions need to be problems about basic probability.

    In addition to creating the quiz, you will also be responsible for providing an answer key.

The Activity Worksheet, the quiz you created, plus the answer key are all due by the end of class tomorrow.