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Chapter 22 – Exploring Concepts of Probability

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The textbook uses many different hands on activities to make probability concrete for children. Did you learn probability by experimenting with possible outcomes or did you jump right into formulas? Which do you think is most beneficial to students keeping in mind that a small number of experiments can give skewed results.

The textbook shows an example of an area model on page 467 do you think this is easier or harder for students to understand than a tree diagram? Did your teacher use area models when you were learning probability?

Computer programs and graphing calculators allow teachers to show students possible outcomes for large numbers of experiments. Do you think that this is something that should be done alongside hands on experiments or instead of hands on experiments? Do you see any drawbacks to using the virtual experiments exclusively? What are some of the major advantages?

Blooms Taxonomy

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| Knowledge –If you toss a die which number do you think it is most likely to land on? |
| Comprehension – Why did you choose that number? |
| Application - Can you tell me what the outcome might be if we rolled the dice exactly six times? What if we rolled it 120 times? |
| Analysis – Looking at the data from rolling the die exactly six times and then 120 times what can we conclude about the accuracy of the probability data with a small number of samples as compared with a large number of samples? |
| Synthesis – What other types of experiments do you think would become more accurate with more trials? |
| Evaluation – Do you think there are some experiments that can’t be predicted with any accuracy before collecting data? |