

6Richmond Public Schools
Department of Curriculum and Instruction
Curriculum Pacing And Resource Guide – Unit Plan



Course Title/ Course #: Pre-Algebra Math 8

Unit Title/ Marking Period # (MP): Probability/ MP 3

Start day: 69

Meetings (Length of Unit): 12 Days

<i>Desired Results ~ What will students be learning?</i>		
<u>Standards of Learning/ Standards</u>		
8.12 The student will determine the probability of independent and dependent events with and without replacement.		
<u>Essential Understandings/ Big Ideas</u>		
<ul style="list-style-type: none"> • How are the probabilities of dependent and independent events similar? Different? If events are dependent then the second event is considered only if the first event has already occurred. If events are independent, then the second event occurs regardless of whether or not the first occurs. 		
<u>Key Essential Skills and Knowledge</u>		
<ul style="list-style-type: none"> • Determine the probability of no more than three independent events. • Determine the probability of no more than two dependent events without replacement. • Compare the outcomes of events with and without replacement. 		
<u>Vocabulary</u>		
Outcomes Probability Dependent Independent Replacement		
<i>Assessment Evidence ~ What is evidence of mastery? What did the students master & what are they missing?</i>		

Assessment/ Evidence

Mulligan Checkpoint 8.12
Mulligan Checkpoint 8.12
Interactive Achievement
HCPS Mini Quizzes

Learning Plan ~ What are the strategies and activities you plan to use?

Learning Experiences/ Best Practice

- Review the concept of probability using never, likely and certain on a number line. Add values to those words such as zero, $\frac{1}{2}$ and one. Discuss how probability can be expressed as fractions, decimals and percents.
- Review with students calculating probability of a simple event using manipulatives
- Use a foldable to introduce independent and dependent events. Provide various examples on a smartboard or under the document camera. Have students use white boards to determine if the event given is independent or dependent.
- Use manipulatives to model independent and dependent events when calculating them.
- [Instructional video](#) with great ideas for a lesson:
- Give students various manipulatives and have them create an independent and/or dependent event story problem. Then have an elbow partner solve the problem

Technology Integrations

Gizmo
Educational Games-under resources
Compass Learning
Allen Teachers
Brain Pop
Khan Academy

Resources

Text

Glencoe Pre-Algebra pages:
813-816 (Theoretical and Experimental Probability)
827-829 (Counting Outcomes)
840-843 (Probability of Compound Events)

Mulligan Math in Minutes 8.12
SOL Coach Book Va Edition: pages 126-132

Technology:

Learning Odyssey-<https://www.thelearningodyssey.com> -
M8227, M8230, 8099, AL073, M7253, M7256
Gizmo-[Independent and Dependent Events](#)-Interactive Instructional Resource
Gizmo-[Spin the Big Wheel](#)-Interactive Instructional Resource
BrainPop-[Independent and Dependent Events](#)-Interactive Skills Practice
The Learning Channel-[Probability of Dependent and Independent Events](#)-Instructional Teacher Video

Virginia Department of Education

VDOE-[Probability](#)-Lesson Plan

Other Sites

HCPS - [Probability](#) - Instructional materials, practice page, assessments
Illuminations-[What Are My Chances?](#)-Lesson Plan
Illuminations-[The Game of Skunk](#)-Lesson Plan/Educational Resource Game
Johnnie's Math Page-[Probability](#)-Educational Resource Games
[How I Roll](#)-probability-how do you win a game?

Cross Curricular Connection

English-have students write a persuasive essay/paragraph persuading someone about which type of probability (independent or dependent) is in their favor.