

McDonough Middle School

Remote Learning Lesson Plan Template

Learning Target (HTLS):

MGSE7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

MGSE7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions.

MGSE7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the medians by expressing it as a multiple of the interquartile range.

MGSE7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.

MGSE7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

MGSE7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency. Predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*

MGSE7.SP.7 Develop a probability model and use it to find probabilities of events. Compare experimental and theoretical probabilities of events. If the probabilities are not close, explain possible sources of the discrepancy.

MGSE7.SP.7a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.

MGSE7.SP.7b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?*

MGSE7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

MGSE7.SP.8a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.

MGSE7.SP.8b Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.

MGSE7.SP.8c Explain ways to set up a simulation and use the simulation to generate frequencies for compound events. *For example, if 40% of donors have type A blood, create a simulation to predict the probability that it will take at least 4 donors to find one with type A blood.*

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Content	Tech Tool	Print Option	Assignment (Title for Gradebook Entry)
ADV 7 th Grade Math	Hardware: Chromebook Software: Learning Platform: Google Classroom Study Island GIZMOS	Probabilities on the Number Line.pdf Probability on the Number Line Directions.pdf GA Frameworks Got Friends Task.pdf GA Frameworks Dice Game Task.pdf GA Frameworks Travel Times to Work.pdf GIZMOS EstPopulationSizeSE.docx	Study Island Random Sampling Study Island Sampling Analysis Study Island Comparing Statistics Study Island Understanding Probability Study Island Approximate Probability Study Island Uniform v. Non-Uniform Probability Study Island Compound Events GIZMOS Estimating Population Size SE Worksheet GIZMOS Estimating Population Size Quiz GA Framework Travel Times to Work Task GA Frameworks Got Friends Task GA Frameworks Probability on the Number Line GA Frameworks Dice Game Task

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Steps:

****First realize these assignments are all due by Monday, March 30. I have created these assignments in order to complete our last unit on Data and Statistics. I created ONE plan instead of 4 different plans so that everything would be in one place. I will place each assignment in Google Classroom with staggering due dates to give you an idea of how to complete these without stressing and getting overloaded.**

STUDY ISLAND Assignments:

1. Complete these assignments in the order in which you prefer. Remember I encourage to go through the lessons first to familiarize yourself with the content BEFORE you take the quizzes. It will save you time and frustration. ALSO I take the highest completed **quiz grade** if you decide to retake and redo the quizzes.

GIZMOS SE Estimating Population Size Worksheet and Quiz:

1. You should be able to download the Word version of the **SE Worksheets** so that you can type directly on them to be submitted for grading. (A different color font would be helpful in grading.) Make sure to upload your completed work to the Google Classroom assignment so that I can grade it.
2. Make sure to complete the 5-question **quiz** under the simulator as it is a grade also.

GA Frameworks Task: Probability on the Number Line

1. A copy of this assignment has been uploaded for each of you. You may type your answers on a Google Document or again on paper to take a picture to upload to the assignment. Make sure it is clear.
2. Make sure your answers are explained well and thoroughly. Use any models or pictures to explain your answers/solutions. I must be able to grade for your understanding.

GA Frameworks Task: Got Friends Task

1. A copy of this assignment has been uploaded for each of you. You may either type your answers on a Google document OR again on paper to take a picture to upload to the assignment. Make sure it is clear.
2. Make sure your answers are explained well and thoroughly. Use any models or pictures to explain your answers/solutions. I must be able to grade for your understanding.

GA Frameworks Task: Travel Times to Work

1. A copy of this assignment has been uploaded for each of you. You may either type your answers on a Google document OR again on paper to take a picture to upload to the assignment. Make sure it is clear.
2. Make sure your answers are explained well and thoroughly. Use any models or pictures to explain your answers/solutions. I must be able to grade for your understanding.

GA Frameworks Task: Dice Game Task

1. A copy of this assignment has been uploaded for each of you. You may either type your answers on a Google document OR again on paper to take a picture to upload to the assignment. Make sure it is clear.
2. Make sure your answers are explained well and thoroughly. Use any models or pictures to explain your answers/solutions. I must be able to grade for your understanding.

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Watch (Hook)	PLAY (practice/expand)	Arts Integration
<p>The videos below are from the website virtualnerd.com if you wish to watch others.</p> <p>Virtual Nerd Videos:</p> <p>-Check out videos under Probability and Data Analysis for various specific support:</p> <p>https://www.virtualnerd.com/middle-math/all/</p>	<p>Google Meet Sessions:</p> <p>I will hold Google Meet Sessions for 7th Grade Advance Math from 11:00 am - noon weekdays.</p> <p>-Make sure to write down or email me before this any questions or concerns you might have.</p> <p>-You can always email me for questions and concerns any time.</p> <p>VIDEOS:</p> <p>I plan to try to make a couple of short videos or screenshots of practice work to support you in these assignments. These will be posted on Google Classroom as I create them.</p>	

