Mathematics
Unit 3: Data Analysis, Statistics, and Probability

Essential Understandings	▪ Graphs convey data in a concise way. ▪ Information from a graph can be used to answer questions. ▪ The probability of an event's occurrence can be predicted with varying degrees of confidence.
Essential Questions	▪ Why does one use graphs? ▪ What is probability? ▪ How can one use data to make predictions? ▪ What is mean? ▪ How does one find the mean?
Essential Knowledge	▪ Data is collected and organized to solve problems and answer questions. ▪ Graphs are used to represent and interpret data. ▪ Probability is a measure of how likely an event is to occur. ▪ The mean is the average of a set of data.
Vocabulary	▪ Terms: ○ mean, experimental probability, line graph
Essential Skills	▪ Read, construct, and interpret line graphs and Venn diagrams. (I, R, A) ▪ Read and interpret circle graphs to make predictions and solve problems. (I) ▪ Determine the probability of an event using theoretical and experimental probability. (I, R, A) ▪ Determine possible outcomes and express as a fraction. (A) ▪ Define, find and use mean, median, mode and range when analyzing data. (I, R, A)

Related Maine Learning Results	B. Data
	  B2.Students read, construct, and interpret line graphs.
	  B3.Students find and use median, mode, and range for a set of data.

NECAP	NECAP
	 Data, Statistics, and Probability
	M (DSP) 5-2
	  Analyzes patterns, trends, or distributions in data in a variety of contexts by determining or using measures of central tendency (mean, median, or mode) or range to analyze situations, or to solve problems.
	M (DSP) 5-5
	  For a probability event in which the sample space may or may not contain equally likely outcomes, determines the experimental or theoretical probability of an event and expresses the result as a fraction.