

Learning Progression




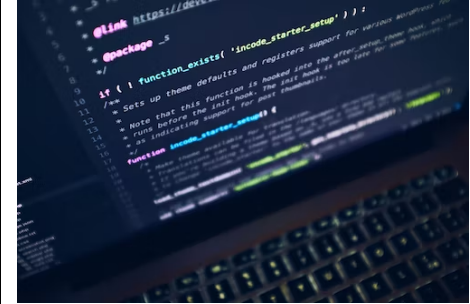
Data Science – MOOSE Year 3



Data Science for Maine Students

Essential Question: How can I use data science to understand, describe, and improve my world?

The Data Science process requires all students to formulate statistical investigative questions, collect and consider the data, analyze the information, then interpret and communicate the findings.

PK - 2	3-5	6-8	9-12
			
Themes: Patterns Information Awareness	Themes: Relationships Connection Perception	Themes: Relevance Improvement Analysis	Relevant Themes Impact Decisions Change
Let's Design a Garden! Weather in my Region	Graphing Activities in my Region	Garbage, Garbage Everywhere!	This I Know?
Goals PK-2 students of Data Science will use	Goals (everything left and) 3-5 students of Data Science collect	Goals (everything left and) 6-8 students of Data Science use	Goals (everything left and) 9-12 students of Data Science create

<p>their natural curiosity to ask questions about their world and then make investigative observations in order to answer their own questions with their own statistics.</p>	<p>and consider data collected with special focus on types of data, organizing data, and data visualizations.</p>	<p>critical and computational thinking to use patterns, and probability for drawing conclusions based on data sets.</p>	<p>data content and decide on how best to represent conclusions for the greatest impact on audience and purpose with special focus on clarity.</p>
<p>Essential Knowledge</p> <p>Data types, Community, Graph, Maximum, Measurement, Minimum, Observational data, People, Quantity, Questions , Results, Tally,</p>	<p>Essential Knowledge</p> <p>Bar plot, Box plot, Columns,Data types, Data visualization, Graph, Histograms, Measurement, Observational data, Qualitative, Quantitative, Questions, Rows, Scatter plots, Tables, Tally</p>	<p>Essential Knowledge</p> <p>Data science, Data set, Data types, Digital tools, Environment, Numerical count, Qualitative, Quantitative, World</p>	<p>Essential Knowledge</p> <p>Bias, Data sets, Data talk, Data visualization, Digital tools, Effect, Example, Linear model, Mean , Model, Qualitative, Quantitative</p>
<p>Critical Skills</p> <p>Ask, Categorize, Collect, Compare, Comprehend, Contrast, Count, Develop, Discuss, Display, Identify, Make, Plan, Predict, Observe, Read, Research, Survey</p>	<p>Critical Skills (everything left and)</p> <p>Collect, Compare, Contrast, Coordinate, Describe, Explore, Identify, Notice, Observe, Pattern, Predict, Research, Survey,</p>	<p>Critical Skills (everything left and)</p> <p>Analyze, Apply, Arrange, Ask, Categorize, Communicate, Compare, Compare sources, Consider, Contrast, Describe, Explain, Explore, Identify sources, Interpret, Investigate, Notice, Practice, Process, Recommend, Survey</p>	<p>Critical Skills (everything left and)</p> <p>Argue, Counter argue, Compare , Contrast, Correlate, Detect bias, Determine purpose, Formulate questions,Participate, Qualify, Quantify, Sample, Store, Strategize</p>