



Investigation and Experimentation

Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and addressing the content in the other three strands, students should develop their own questions and perform investigations.

Students will plan and conduct a scientific investigation to test a hypothesis.



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Students will evaluate the accuracy and reproducibility of data.



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Students will distinguish between variable and controlled parameters in a test.



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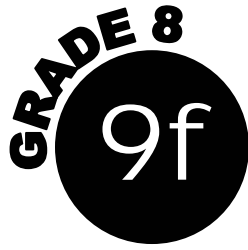
Students will recognize the slope of the linear graph as the constant in the relationship $y=kx$ and apply this principle in interpreting graphs constructed from data.



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Students will construct appropriate graphs from data and develop quantitative statements about the relationships between variables.



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Students will apply simple mathematic relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (including speed = distance/time, density = mass/volume, force = pressure x area, volume = area x height).



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Students distinguish between linear and non-linear relationships on a graph of data.