| Standard | Lesson 1 Case study through critical reading | Lesson 2  Exploration of sources and detection of CO2, carbon cycle | Lesson 3 Consider stakeholders and possible investigation | **Lesson 4**  Plan a cohesive set of experiments | Lesson 5A  Experiments and analysis | Lesson 5B  Analyze online data, simulations or other evidence | Lesson 6  Mock summit, presentation of findings development of network, possible solutions |
| --- | --- | --- | --- | --- | --- | --- | --- |
| [CCSS.Math.Content.HSN-Q.A.1](http://www.corestandards.org/Math/Content/HSN/Q/A/1) Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays. |  | X |  |  | X | X | X |
| [CCSS.Math.Content.HSN-Q.A.2](http://www.corestandards.org/Math/Content/HSN/Q/A/2) Define appropriate quantities for the purpose of descriptive modeling. |  | X |  |  | X | X | X |
| [CCSS.Math.Content.HSN-Q.A.3](http://www.corestandards.org/Math/Content/HSN/Q/A/3) Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. |  |  |  |  | X | X |  |
| [CCSS.Math.Content.HSS-MD.B.5](http://www.corestandards.org/Math/Content/HSS/MD/B/5) (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values. |  |  |  |  |  |  | X |
| [CCSS.Math.Content.HSS-IC.A.1](http://www.corestandards.org/Math/Content/HSS/IC/A/1) Understand statistics as a process for making inferences about population parameters based on a random sample from that population. |  |  |  |  | X |  |  |
| [CCSS.Math.Content.HSS-IC.A.2](http://www.corestandards.org/Math/Content/HSS/IC/A/2) Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. |  |  |  |  |  | X | X |
| [CCSS.Math.Content.HSS-IC.B.4](http://www.corestandards.org/Math/Content/HSS/IC/B/4) Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. |  |  |  |  | X |  |  |
| [CCSS.Math.Content.HSS-IC.B.5](http://www.corestandards.org/Math/Content/HSS/IC/B/5) Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant. |  | X |  |  | X |  |  |
| [CCSS.Math.Content.HSS-IC.B.6](http://www.corestandards.org/Math/Content/HSS/IC/B/6) Evaluate reports based on data. |  |  |  |  |  |  | X |
| [CCSS.Math.Content.HSS-CP.A.1](http://www.corestandards.org/Math/Content/HSS/CP/A/1) Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (“or,” “and,” “not”). |  |  |  |  |  |  | X |
| [CCSS.Math.Content.HSS-CP.A.5](http://www.corestandards.org/Math/Content/HSS/CP/A/5) Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. | X | X | X | X | X | X | X |
| [CCSS.Math.Content.HSS-ID.B.6c](http://www.corestandards.org/Math/Content/HSS/ID/B/6/c) Fit a linear function for a scatter plot that suggests a linear association.  [CCSS.Math.Content.HSS-ID.C.7](http://www.corestandards.org/Math/Content/HSS/ID/C/7) Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.  [CCSS.Math.Content.HSS-ID.C.8](http://www.corestandards.org/Math/Content/HSS/ID/C/8) Compute (using technology) and interpret the correlation coefficient of a linear fit.  [CCSS.Math.Content.HSS-ID.C.9](http://www.corestandards.org/Math/Content/HSS/ID/C/9) Distinguish between correlation and causation. |  | X |  |  | X |  |  |