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|  Mad Science | **Standards-Based EducationPriority Standards** |
| **6th - 8th Grade** |
| *Planning Investigations* |
| PS1 | Asking questions that arise from observations of phenomena, models, or unexpected results to seek additional information.  |
| PS2 | Ask questions that can be investigate in the frame a hypothesis based on observations and scientific principles. |
| PS3 | Planning and carrying out investigations. Plan an investigation individually and collaboratively identifying variables and controls, tools needed, how measurements will be recorded, and how many data are needed to support a claim.  |
| *Modeling and Carrying Out Investigations* |
| PS4 | Ask questions to clarify or refine a model or an engineering problem. |
| PS5 | Asking questions to determine relationships between independent and dependent variables and relationships in models |
| PS6 | Develop a model to show the relationships among variables. |
| PS7 | Conduct an investigation and/or evaluate and/or revise the experimental design to produce data to serve as the basis for evidence that meet the goals of the investigation. |
| PS8 | Collect data to produce data to serve as the basis for evidence to answer questions or test design solutions. |
| *Communicating Ideas* |
| PS9 | Construct, analyze, and interpret graphical displays of data or data sets.  |
| PS10 | Analyze data to determine the optimal solution for model or problem. |
| PS11 | Construct an explanation that includes qualitative or quantitative relationships between variables that describes a model. |
| PS12 | Apply scientific ideas, principles, and evidence to construct an explanation for models.  |
| PS13 | Construct, use, and/or present an oral and written argument supported by empirical evidence and scientific reasoning to support or refute a model. |
| *Literacy in Science* |
| 6-8.RST.3 | Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. |
| 6-8.RST.7 | Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). |
| 6-8.RST.8 | Distinguish among facts, reasoned judgment based on research findings, and speculation in a text. |
| 6-8.RST.9 | Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic. |