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Quadrant C Assimilation

- Solve a hypothetical science-related problem, such as helping dinosaurs to survive.
- Design experiments and collect evidence to describe the movement of light.
- Design a WebQuest on an aspect of chemistry.
- Design observations to demonstrate basic laws of physics.
- Calculate potential and kinetic energy in the movement of a roller coaster.
- Create a digital electronic counter.
- Write test questions to illustrate understanding of empirical gas laws.
- Research the discovery of a chemical element.

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Quadrant D Adaptation

- Explore designs of car safety restraints using eggs in model cars.
- Design and construct a robot.
- Conduct debate on genetically modified food (GMF).
- Solve an organic chemistry case study problem in petroleum distillation.
- Select a method to build a tunnel under a real city.
- Discuss the social, ethical, and emotional consequences of genetic testing.
- Participate in an online debate on a science issue, such as acid rain or deformed frogs.
- Research and write a newspaper article on a viral disease, examining economic and societal impacts.

Quadrant A Acquisition

- Conduct laboratory experiments to observe chemical reactions.
- Apply number and computation skills to science, including scientific notation and significant figures.
- Determine latitude and longitude of geographic locations.
- Use a mnemonic system for remembering metric conversions.
- Demonstrate modulation of sound waves using computer animation.
- Conduct experiments to observe properties of acids and bases.
- Memorize elements in Periodic Table.
- Make observations about the visual effects of concave and convex lenses.

Quadrant B Application

- Map a community site by collecting data with GPS device.
- Collect and categorize organisms from a natural stream.
- Apply Laws of Gases to design gas storage containers.
- Make weather forecasts based on data.
- Solve electrical current values using Ohm's law.
- Isolate DNA from unknown plant tissues and compare to sample DNA.
- Participate in an online collaboration to collect scientific data on a global problem.

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