

Super Science – 8th Grade – Mrs. Black

Super Science is a one quarter class developed to explore science and specific science topics at a level beyond the regular 8th grade science curriculum. The targeted areas are: exploration in extreme heat and cold, examining dietary consumption and exposure of teenagers, and interpreting how science is used in everyday lives and future career goals.

**Students should have a cumulative GPA of a B or higher in 7th grade to sign up for this class.*

Minnesota Academic Standards Covered throughout the Course

The Nature of Science and Engineering

(8.1.1.1.1.)

- Evaluate the reasoning in arguments in which fact and opinion are intermingled or when conclusions do not logically follow from the evidence given.

(8.1.1.2.1.)

- Use logical reasoning and imagination to develop descriptions, explanations, predictions and models based on evidence.

(8.1.3.2.1.)

- Describe examples of important contributions to the advancement of science, engineering and technology made by individuals representing different groups and cultures at different times in history.

(8.1.3.4.2.)

- Determine and use appropriate safety procedures, tools, measurements, graphs and mathematical analyses to describe and investigate natural and designed systems in Earth and physical science contexts.

Physical Science

(8.2.1.1.1.)

- Distinguish between a mixture and a pure substance and use physical properties including color, solubility, density, melting point and boiling point to separate mixtures and identify pure substances.

(8.2.1.2.1.)

- Identify evidence of chemical changes, including color change, generation of a gas, solid formation and temperature change.

(8.2.1.2.2.)

- Distinguish between chemical and physical changes in matter.

**Earth and Space Science standards will be covered intermittently with the above standards if time allows.*

Course Topics and Activities

Directions

- Following
- Writing
- Drawing
- Incorporating technology

Fire

- History of fire
- Fire statistics
- Safety
- variety of mini labs and demonstrations
- Student demonstrations

Teenage diet choices

- History of candy
- Dessert statistics
- Google Slide Presentation
- Density lab

Liquid Nitrogen

- Facts
- Statistics
- Safety
- variety of mini labs and demonstrations
- Student demonstrations

Higher Science Education/Careers in Science

- Visit a business
(ex. Culvers, Cherry Berry, etc.)
- Visit BHS science classes
- Career exploration

Grading is based on a total point system that is cumulative over the quarter class

A= 90%-100%

B=80-89%

C=70%-79%

D=60-69%

U=59% and lower