

Elective Descriptions:

- Ecology
 - Grade 10-12
 - 2 credits
- Chemistry
 - Grade 10-12
 - 2 credits
- Advanced Chemistry
 - Grade 11-12
 - 2 credits
- Anatomy and Physiology
 - Grade 11-12
 - 2 credits
- Physics
 - Grade 11-12
 - 2 credits



• Required 6 credits total:

- Physical Science (2)
- Biology (2)
- Choose at least one of the following 2 trimester class
 - Science Survey
 - Chemistry
 - Advanced Chemistry
 - Physics
 - Anatomy and Physiology



High School Science

Dike-New Hartford CSD

330 Main St., Dike, IA 50624

<http://www.dnhcsd.org>

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Physical Science

Physical Science is an introduction to 2 main disciplines of Science-Chemistry and Physics. One trimester is devoted to Chemistry and the other to Physics. A student will work about 50-60% of time in the laboratory to explore and develop.

Essential Skills and Concepts:

- Understand and apply knowledge of atomic structure and matter.
- Understand and apply knowledge of chemical reactions.
- Understand and apply knowledge of motions and forces

Essential Skills and Concepts covered in both

- **Identify questions and concepts that guide scientific investigation.**
- **Design and conduct a scientific investigation.**
- **Use technology and mathematics to improve investigation and communication.**
- **Formulates and revises scientific explanations and models using logic and evidence.**
- Think critically and logically to make the relationship between evidence and explanations.
- Recognize and analyze alternative explanations and predictions.
- Communicate and defend scientific procedures and explanations.
- Use mathematics in all aspects of scientific inquiry.
- Communicate investigations and explanations.
- Follow appropriate safety procedures when conducting investigations.

Biology

The main objective of Biology is to study the life processes of organisms. Biology class will emphasize hands-on activities as well as research. Topics covered include life characteristics, cell structure and function, genetics and heredity, microbiology, classification, plant and animal structure and function, and ecological concepts.

Essential Skills and Concepts:

- Understand and apply knowledge of the cell.
- Understand and apply knowledge of basis heredity.
- Understand and apply knowledge of evolution.
- Understand and apply knowledge of interdependence of organisms.
- Understand and apply knowledge of energy flow inside living systems.
- Understand and apply knowledge of behavior of organisms.