

SCIENCE STUDIES AT HANSHEW

The Hanshew Science Department is committed to presenting a strong, hands-on science curriculum to your student.

Using field trips, special speakers, frequent laboratory/discovery exercises, interdisciplinary projects, current event discussions, group activities, multimedia resources and reading and writing challenges, we will expose your student to the basic concepts of science. At all levels and in all science subject areas we work to strengthen students' science process skills. These include observation, data evaluation, using predictions and hypotheses, and communicating conclusions.

The science subject areas covered at each grade level follow the Anchorage School District Science Frameworks. A general overview can be found inside this brochure.

Our goal is for your student to leave Hanshew with a broader base of knowledge, greater scientific literacy, better critical thinking skills and a more flexible and creative approach to problem solving.

Please feel free to contact your student's science teacher or our department chair with any questions. We would all be happy to have volunteers in our classrooms!

Science Electives

Hanshew offers a wide variety of science electives to our students. These classes are offered as enrichment to the 7th and 8th grade science curriculum taught here. Science electives that have been available to students include but are not limited to: Anatomy, Edible Science, Forensics, PLTW – Design & Modeling and Robotics.

Both Robotics and Science Olympiad are offered as after school activities with the goal of participation in the local competitive events.

Breakage Policy

Students are responsible for the replacement cost of broken lab equipment due to negligent actions.

Science Faculty

Seventh Grade

Ms. Crystal Heath
Mr. Eric Magnuson

Eighth Grade

Mr. Konrad Mittelstadt*
Mr. Nick Oliver

*Department Chair

Science at Hanshew Middle School



7th Grade Highlights

8th Grade Highlights

Scientific Method
Classification
Inferring

Metric System
Observation
Communication

Laboratory Safety
Prediction
Making generalizations

Computer Science

On-line programming - various sites

Robotics programming with *Spheros*

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Life Science

Life – characteristics and requirements

Cells - plant and animal cell structure and function, energy and reproduction, viruses, bacteria, and parasites

Introduction to organism classification, dichotomous keys

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Physics

Waves – light and sound, electromagnetic spectrum

Forces – electricity and magnetism

Newton's Laws of Motion

Energy Transformation – transfers, forms, potential and kinetic, heat transfer, convection currents

Earth Science

Geology – weathering, river systems, deposition, erosion, soils and soil formation, topographic maps, minerals, plate tectonics, earthquakes and volcanoes, rock cycle, large scale movement and convection currents

Space – history of astronomy, near earth area, solar system, universe,

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Life Science

Genetics – principles of Mendelian genetics

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Chemistry

Atoms – structure, elements, periodic table structure, reactivity, bonds, molecules, compounds, equations

Matter – characteristics, physical and chemical changes, states of matter, properties of matter

Conservation of Matter

Properties – introduction to density, conductivity

Properties – acids and bases, reactions, solutions, conductivity

Science Textbooks

Hanshew uses the Glencoe Integrated iScience textbooks. There are two versions one for 7th grade use and one for 8th grade use. Replacement cost is \$108 for each book.

These text books were purchased for classroom use. Students can access the textbook from home two ways.

The first way is online. The student will go to the ASD website and log into their ASD Google account, then open a new window and enter the following URL connected.asdk12.org

The second way is to download the textbook to your OS device using the following steps:

1. Student downloads the McGraw-Hill ConnectEd app from the App Store
2. Click on the app and open it once so the device recognizes the app
3. Using the device that now has the app, student opens browser and goes to connected.asdk12.org and logs in with their ASD credentials
4. Once in connectEd on their device, student should see “Launch the app” button on the lower right of their screen.
5. Select the Launch the app button and then scroll through the sections of the book. You can download one section at a time, or multiple.