

5th Grade

Course Descriptions

Language Arts 5

This two period (block) course includes instruction related to sentence structure, clause and phrase structure, parts of speech, beginning composition (story writing), note taking, punctuation, capitalization, literature appreciation and written expression. A component of the course entails the computer based Accelerated Reader computer program that is used to encourage reading. Students will be required to take AR quizzes or other form of available assessment as a means of assessing literature comprehension. Results of the assessment will factor into the Language Arts grade.

Math 5

This two period (block) course based on the University of Chicago School Mathematics Project is entitled Everyday Math. The core concepts include, but are not limited to the following: Number Theory (Rectangular Arrays, Factors, Divisibility, Prime & Composite Numbers, Square Numbers, Prime Factorization); Estimation & Computation (Addition, Subtraction and Multiplication of Whole Numbers & Decimals, Estimation of Products, Lattice Method of Multiplication, Comparing Millions, Billions and Trillions); Geometry Explorations (Angle measurement, Tessellations, etc.); Division (Partial Quotients Division Algorithm & Strategies, Division of Decimal Numbers, Interpreting the Remainder & Distance); Fractions, Decimal and Percents (Comparing, Calculation Conversions, Bar & Circle Graphs); Using Data (Stem-and-Leaf Plots, Slide Rule Use, Clock Fractions, Common Denominators); Exponents & Negative Numbers (Notations, Powers of 10, Order of Operations, Addition & Subtraction of Negative Numbers); Fractions & Ratios (Comparing Fractions, Adding & Subtracting Mixed Numbers, Fractions of Fractions, Multiplication of Fractions, Whole Numbers & Mixed Numbers, Percents of Numbers); Coordinates of Area, Volume and Capacity; Algebra Concepts and Skills; Probability, ratios and Rates.

Science 5

Instruction within in this course will include three main units: **Variables**, **The Changing Surface of the Earth**, and **Animal Diversity and Environments**.

- In the **Variables** unit, students participate in hands-on investigations to see how variables will affect various objects. Investigations include “Pendulums/Swingers”, “Lifeboats”, “Planes”, and “Catapults/Flippers”
- In the **Changing Surface of the Earth** unit, students study landforms, various types of maps, soil formation and structure and glaciers.
- In the **Animal Diversity and Environments** unit, students are introduced to many animals and their behaviors. Lessons include: Mollusks, worms, arthropods and echinoderms; fish, amphibians and reptiles; birds and mammals.

Social Studies 5

Students study the history of the America from the early inhabitants of North America through the American Revolution. Students explore Native American Cultures and follow the European exploration of North America. They learn about life in Colonial America and the events leading to the Revolutionary War. Nystrom Map and Atlas activities are used in conjunction with the textbook.

SPECIALS

Band 5

This is an entry level class for students wishing to play band instruments. Students will be exposed to the basics of playing an instrument (independently and as an ensemble) through various musical selections. Students meet 1-2 times a week during their study hall and perform a spring concert in May. This is not a graded class.

Computers 5

This course builds upon previously learned computer skills. Instruction will reinforce one's understanding of computer hardware, software and basic networking terms. Skills will include word processing, spreadsheet and multi-media presentations. Emphasis will be placed on file management and appropriate technology use in a network environment. Word-processing skills are practiced throughout the course in an effort to promote speed and accuracy. Students will use appropriate terminology related to hardware and software. Students will apply technology skills to conduct Internet research and complete an on-line project in cyber safety. They will continue to deal with legal, social and ethical issues related to the use of computers in our daily life.

General Music 5

5th Grade General Music meets daily for 9 weeks. This class uses the textbook "Making Music." Activities may include (but are not limited to) the following: singing, playing classroom instruments, note-reading activities, and rhythm activities. The students will also be exposed to music and instruments from different cultures around the world. This is a graded class.

Library Science 5

The junior high library follows a flexible schedule. Free periods are allotted for students to select reading materials, which are selected by the librarian to foster a love of reading and support the school-wide Accelerated Reader program. Classes come to the library sporadically throughout the school year for instruction on topics involving library science and to research skills. Projects represent collaborative efforts between the subject teacher and the library teacher and meet PA Academic Standards within each subject's curriculum. Instructional objectives for each grade level are as follows:

- Become independent library users by utilizing the OPAC and referring to the Dewey Decimal system to locate books in the library (Language Arts Collaboration).
- Practice web searching skills, evaluate websites for reliability, and recognize copyright laws to create a website about an animal (Computer Science Collaboration).
- Use print and electronic resources to gather information and create an e-book about an explorer (Social Studies Collaboration).
- Utilize electronic databases to access biographical information about an author and create an avatar to present the information to peers (Language Arts Collaboration).

Physical Education 5

P.E. 5 instruction intends to develop and maintain a level of health related fitness. The course is not centered on the development of specific athletic skills. Students will participate in a variety of activities to attain a personal level of health fitness, to include cardiovascular exercises, competitive events and swimming. The course is not designed to develop specific athletic skills.

Visual Arts 5

Visual Arts 5 encourages students to explore and develop their own ideas in various media, while mastering basic art concepts and thinking skills. Students will learn the process of perceiving, analyzing, interpreting and judging art work.

Rotation Courses

Computational Thinking with Robots 5

This pass/fail course utilizes five modules of Robomatter's TREC On-Ramp: Catch-UP Course. (TREC: Technology, Robotics, Engineering and Coding). Students will learn the fundamental programming concepts required to complete STEAM grade level tasks. Students will utilize both physical and virtual robots in tasks designed to incorporate TREC concepts.

Essential Technology I – 5th grade

During this course students will focus on basic computer skills and responsible computer use. Students will develop a basic understanding of Internet safety, ethical computer use, keyboarding, copying and pasting files or text, copyright laws, accessing, creating, and printing work, and searching the Internet. This course will cover basic skills related to web-based applications including Google Docs, Slides, Sheets, Draw, and Classroom and Internet Research.

Help Lab

On rotation days noted as Help Lab, students will return to their homeroom during the corresponding class period. During this time, individuals may seek clarification regarding coursework or participate in extensions of learning activities.

InnovatED 5

This is a hands-on, project-oriented course for students. The course is designed to address national educational standards in Science, Technology, Engineering, Art, and Mathematics. The goal, as a team, is to open one's mind and gain knowledge in STEAM related fields, as well as develop one's skills needed for success in the 21st Century. All students will actively engage in solving real-world problems by using prior knowledge, scientific inquiry, content knowledge, and technological design. Creativity, teamwork, communication, and critical thinking are essential components of the course.

Introduction to Jr. High

The intent of these sessions is to provide students with a better understanding of the essential skills required for success in a Jr. High learning environment. Students will be exposed to various organizational strategies, building level policies/practices, study habits, peer relationship strategies, collaborative learning strategies.

Technology Education 5

This pass/fail course provides students with an introduction to biotechnologies, physical and informational technologies. Additionally, students will be exposed to the basic tools used in mechanical drawing/CADD, sketching, measurement (to the nearest 1/8 inch) and basic three dimensional objects. Various tools will be incorporated for student use in the development of assigned projects. **Safety practices will be addressed and strictly enforced throughout the course.**