



Schoolwide Program Design

Penn Hills Charter School has 3 grade bands Primary which consist of grades Kindergarten - Second Grade, Intermediate Third - Fifth grade, and our Prep Academy Sixth - Eighth grade. Every scholar is given instruction using a standards based curriculum that infuses our microsociety program and entrepreneurial concepts that provides a hands on engaging curriculum of real world connections to the academic classroom.

PRIMARY ACADEMY (K-2)

Reading and Language Arts

Students will be able to make connections between letters, words, and ideas. They will progress from the rhythms and cadences of nursery rhymes to the designs and patterns of poetry, from the telling of stories to the performance of plays, and from fables and folktales to real life adventure. As active participants in a culture of inquiry, primary students extend their appreciation of literature to include the communication skills and strategies necessary to comprehend and respond to what they read, hear, and see.

Reading: *A primary reading goal is for students of all grades to read independently with fluency and comprehension so that they become lifelong readers and learners.*

- Guided reading, Explicit Instruction – Teacher Center
- Phonemic Awareness – Computer Station and Word Study Center
- Phonics – Computer Station and Word Study Center
- Fluency – Reading Station and Textbook Center
- Vocabulary – Textbook Station and Word Study Center
- Comprehension – Reading Station and Arts & Activities Center

Language Arts: *The primary goal of the language arts program is to assist students in building a basic understanding of the mechanics and structure of the English language.*

- Introduce spelling, grammar, punctuation, sentence structure, and content as essential writing elements
- Provide a comprehensive listening and speaking program, including opportunities for oral presentations, read-aloud, role-playing, and performances
- Provide a comprehensive writing program, including opportunities for journaling,

research, creative and expository writing, and publishing

- Provide access to technology and communication tools for research, editing, revising, and project development
- Maintain individually-kept writing portfolios and independent reading logs
- Development of entrepreneurial concepts of collaboration and understanding community
- Ensure that every student reads and writes on grade level and beyond by the end of second grade.

Mathematics

Students in the Primary Academy will participate in active, numeric-rich experiences in mathematics. Problem solving skills and computational skills are interwoven across lessons, subject areas, and mathematical strands. Students will be introduced to foundations in geometry, algebra, data analysis, measurement and number sense. Primary Academy students will develop a disposition for learning mathematics early on, providing a foundation for the conceptual and abstract thinking that teachers build upon in later grades.

Major concepts :

- Developing number sense
- Mastering basic computation skills
- Understanding and extending patterns
- Applying problem solving strategies
- Developing understanding of concepts through problem solving
- Analyzing data and using and connecting a variety of mathematical representation
- Manipulating shapes, numbers, and space to develop estimation skills
- Developing an understanding of financial literacy

Science

The Primary Science curriculum captures, nurtures and guides the spontaneity that characterizes young children's interaction with their surroundings. Students will participate in guided exploration activities in which they handle simple objects, organisms, and scientific tools to satisfy their sensory and intellectual curiosity about these items. During these periods, teachers and students will share thoughts, findings, and questions. Through these initial phases of scientific exploration, the students' naturally inquisitive natures will be directed toward the more sophisticated problem-solving situations that they will utilize as young entrepreneurs.

Throughout the curriculum, however, children will be actively engaged in learning about the environment locally and more broadly, and applying their skills to help their communities.

Major concepts:

- Dinosaurs and discoveries
- Life cycles of animals and plants
- Relationships between living things

- Ecology and the environment
- Structure of the human body, health, and hygiene
- Properties and states of matter
- Energy of heat, light, sound, and electricity
- How inventors, inventions, and machines connect
- Weather patterns and change
- How the bodies of our solar system are organized and interact
- Current events and stories about scientists

Social Studies

The curriculum brings the story alive, giving students a good understanding of how people, places, and things relate in space and time. Our MicroSociety lessons will reinforce the concepts of entrepreneurship.

Major concepts:

- Provides a socially interactive environment to promote democratic principles and social skills
- Presents social studies through hands-on, minds-on activities that integrate disciplines and incorporate technology and fine arts
- Introduces people, places, beliefs, and traditions of other times and cultures
- Introduces people, places, beliefs, and traditions that tie us together as a nation
- Provides resources to explore current as well as past events
- Practices using maps, globes, and other tools of geography
- Promotes making wise choices and being good consumers
- Involves all students in simulations related to grade-level theme
- Involves all students in service projects related to grade-level theme

INTERMEDIATE ACADEMY (3-5)

Reading and Language Arts

Intermediate students will be exposed to a wide variety of literary genres, including fiction, nonfiction, classic, and contemporary works. They will write in response to what they read, questioning information presented in a variety of formats and predicting outcomes. Our intermediate students will complete individual research reports and cooperative multimedia

displays as they hone the skills needed to gather and present information using communication tools.

Major concepts :

- Refine essential tools related to reading, writing, listening, and speaking and integrate these tools as applicable to all subject areas
- Increase ability to comprehend a variety of prose materials, including trade books and subject area textbooks; Great Books; poems; novels; drama; and short stories
- Develop critical thinking and problem solving techniques as they apply to print and non-print media
- Heighten sensitivity to other cultures and build cultural literacy
- Provide instruction on the rules and mechanics of Standard English, effective speaking skills, and oral presentations
- Introduce structural vocabulary program focusing on origins of words
- Refine research skills and narrative and expository writing skills and strategies
- Provide oral communication experiences, including speech and debate, recitations, and literature circles
- Introduce the five-paragraph expository theme and a variety of creative writing formats
- Instruct in the use of literary devices in works of literature and apply them in original writing assignments
- Require independent and collaborative theme-related projects at each grade level
- Maintain individually kept writing, reading, and speaking portfolios
- Develop leadership abilities through peer evaluation and assessment
- Developing entrepreneurial writing and reading skills such as business plan writing and career research.

Mathematics

Intermediate students need active engagement in exploring mathematical concepts, as well as both challenge and support when learning mathematics. Our students will use opportunities in mathematics to develop methods of inquiry and application as they participate in the problem solving process in real-world contexts. Within the integrated curriculum, problem-solving strategies are developed in all disciplines. Problems that are difficult enough to challenge our students' thinking inspire persistence, curiosity, and feelings of confidence in their abilities.

Major concepts:

- Understanding geometric relationships
- Organizing and comparing data set
- Applying problem solving strategies
- Developing algebraic reasoning
- Establishing measurement techniques
- Using advanced mathematical tools and technologies
- Reasoning and making sense of mathematics
- Demonstrating flexibility in choosing computational methods
- Understanding and explaining computational methods
- Producing and explaining accurate answers efficiently
- Representing thinking
- Exhibiting number sense and mastery of computation skills
- Financial Literacy

Science

The intermediate science curriculum provides an environment where students feel comfortable observing, describing, classifying, pondering, and communicating with fellow investigators to learn about their world. The integrated curriculum provides a model well suited to the nature of young entrepreneurs. Students will consider the lives and contributions of scientists in the past and present and relate them to their own experiences and investigations today.

Major concepts:

- Structure and function of living things
- The impact of evolution and heredity
- Ecosystems and their components
- Earth changes
- Stars, galaxies, and the universe
- Energy transferred and transformed
- Environmental problems and solutions
- Technological solutions and design
- Desirable health habits
- Systems of scientific investigation
- The science and mathematics connection
- Entrepreneurial skills and problem solving techniques

MicroSociety

The MicroSociety program at the Penn Hills Charter School of Entrepreneurship turns social studies into a living lesson in citizenship and government. Students forge a social contract during a Constitutional Convention. They learn how government works in legislature and debate social

issues in town meetings. Coached by teachers, children learn to resolve conflicts, negotiate, persuade, and defend their actions in court.

Major concepts:

- Provides an active learning environment with a variety of media resources
- Establishes a culture of inquiry where students study implications of social, political, and economic events as they impact the present and future
- Presents in-depth study of social studies topics in which students make choices about what they study and produce
- Presents key concepts of state and federal government
- Introduces leaders from various fields, cultures, and times
- Introduces the fundamental concepts of economics as they relate to individuals, institutions, and societies through financial literacy
- Promotes collaboration and respect for others with ventures and agencies
- Involves all students in class simulations related to grade-level theme
- Requires participation in a service projects related to grade-level theme

PREP ACADEMY (6-8)

Reading and Language Arts

Students will strengthen their ability to speak effectively and widen their genre in reading and writing to include creative and expository works, as well as analytical prose and drama. As we prepare our scholars with 21st century skills, middle school students become responsible users of media as they conduct research, create performances, and develop multimedia projects. Upon leaving the Prep Academy, the Charter School students will be effective communicators and information managers, well prepared for an in-depth study of literary and expository works.

Major concepts:

- Continue exploration of universal ideas in a literature-based reading and writing program
- Develop mastery of the mechanics of writing, structural elements, and Standard English
- Expand vocabulary to be demonstrated in oral and written presentations

- Expand in-depth studies of a variety of literary genre, types of poetry, and drama
- Hone reading skills and strategies to relate them to all disciplines
- Hone critical thinking and creative problem solving skills in relation to all disciplines and to real-world issues and concerns
- Develop skills and strategies related to interpretation of literature, including analysis and explication
- Expand writing skills related to formal research and creative writing
- Develop independent, self-directed writers and researchers
- Continue the study of Latin and Greek word origins and vocabulary development
- Expand oral communication skills through extemporaneous speaking, formal debate, recitations, readings, and dramatic presentations
- Content that is standards- Require independent and collaborative multimedia presentations related to grade level themes
- Require completion of selected titles and projects from academy lists
- Maintain individually kept writing, reading, and presentation portfolios
- Develop leadership abilities through literature circles, original critiques and editorials, and publishing staff assignments
- Create business plans and develop marketing strategies

Mathematics

Prep Academy students will be drawn toward mathematics through challenging real-life approaches to mathematics in context. Today's world requires an in-depth knowledge of concepts related to Algebra, Geometry, Trigonometry, and Calculus in fields ranging from auto mechanics to architecture and design. Students will learn and apply the mathematical skills necessary for success in high school and the world of work. Our students will engage in opportunities for individual and group problem solving, in-depth experiences with the tools and applications of new technologies, and a creative instructional program that explores mathematics as an innovative and challenging career choice.

Major concepts:

- Understanding and flexibility with rational numbers, linear functions, proportionality, and measurement
- Geometry
- Integration across topics
- Promoting flexibility in analyzing data
- Introducing dynamic Pythagorean relationships
- Developing linear functions
- Locating square roots
- Mathematical reasoning and problem solving

Science

An essential aspect of science literacy for the 21st century is the ability to use technology to access information, make wise decisions, and be efficient and responsible when using multimedia resources in researching topics and communicating with others. Students who initiate science inquiry and who understand science concepts are well prepared to become the scientifically literate adults needed in our global society.

Major concepts:

- Structure and function in living systems
- Relationships in ecosystems
- Diversity and adaptations of organisms
- Chemistry, compounds, and solutions
- Properties and changes in matter
- Basic principles of Physics
- Weather patterns and forecasting
- Global and regional problems
- The history and structure of Earth
- Space phenomena and the Universe
- The molecular basis of heredity
- Biological evolution
- Interdependence and behavior of organisms

Humanities

The Humanities program content is presented through interdisciplinary themes which allows for a myriad of activities that ensure active learning takes place. Upon leaving the Prep Academy, students will be academically and socially prepared to take on the challenges of a high school program and the greater challenges presented by a global society.

Major concepts:

- Deepens students' knowledge and understanding of content introduced through the social studies strands of economics, civics, and geography in relation to historic and current events
- Integrates content presented through the social studies strands with mathematics, science, and reading and language arts
- Increases students' inquiry and sense of ownership in what they learn through independent research, collaborative real-world problem solving, and project-based learning
- Involves all students in a simulation that immerses them in curriculum content

- Promotes individual characteristics of leadership through a study of leaders past and present, individual goal setting
- Requires the completion of a self-selected project related to grade level theme
- Requires participation in a service project related to grade level theme

Entrepreneurship

An entrepreneurial education is used for preparing the next generation to improve their lives immediately and ultimately to improve livelihoods for themselves and their communities. Experience-based learning is what makes an education practical, especially when the entrepreneurial education could be easily integrated into their core curriculum. Students will learn best when they can apply the knowledge they have gained directly to their lives. It is experience that is the best teacher. Experience is necessary in order for young people to build the skills necessary to lead change and create jobs. Developing our students' confidence, supporting them in overcoming personal challenges, and guiding them towards a personal vision is the foundation for their futures as leaders and entrepreneurs. This foundation will give them the drive they need to realize the vision they have for their country. Entrepreneurship education teaches young people to become economically productive members of society by improving their academics, business, technology and life skills. These skills and concepts will be taught through our specific designed curriculum. We use our scope and sequence of lessons for grades 6th - 8th to guide us and ensure our students have obtained the skills and concepts to be effective entrepreneurs and leaders in whatever field they choose.

Major concepts:

- Starting your Business
- Business planning
- Marketing
- Business success
- Financial literacy and contracts
- Operating cost
- Contracts
- Supply and demand
- Career cruising

RELATED ARTS**Technology (3-8)**

Technology students will focus on the skills and computer literacy to be competitive entrepreneurs in the 21st century.

- Introduction to the history of Computers and qwerty Keyboard and beginner typing skills
- The history of the internet
- Beginner, second, and third tier Block coding.
- Introduction to internet safety, learn the significance of issues such as computer viruses, copyright laws, and cyberbullying.
- Introduce students to word processing applications, students will create works in the Google Docs program.
- Produce presentations through applications like Google Slides
- Basic robotics vocabulary and examining how robotics can improve our environment.
- Producing creative classroom video
- Basic and advanced coding

Physical Education/Health (K-7)

Physical Education program helps our students keep fit through a variety of organized activities that focus on:

- Control and coordination of movements

- Rhythm, agility, and balance
- Competitive and noncompetitive sports
- Basic games and exercise
- Fitness
- Respect for rules
- Sportsmanship and Camaraderie
- Proper use of equipment
- Strategy

Health topics are closely linked to science and physical education content, which include:

- Basic hygiene and health habits
- Nutrition
- Functions of body parts and systems
- Disease prevention
- First aid and safety
- Dangers of substance abuse
- Benefits of exercise

Art (K-8)

Through the exploration of a variety of creative arts, artists, art processes and art experiences, students have the opportunity to develop higher thinking and creative problem solving.

Skills and Techniques:

- Creation and Communication
- Aesthetic and Critical Analysis
- Applications to Life

Music (K-8)

From classic to contemporary sounds, all students enjoy music. Students create by improvising melodies, variations and accompaniments using a variety of sound sources. Students listen to musical selections. Teachers expose students to a varied repertoire of music representing diverse genres and styles. Songs are linked to classroom themes and previous learning. Students sing. They learn expressive qualities, tone, melody and style of songs. Students play instruments to echo rhythmic patterns, to improvise melodic progressions and produce harmonic accompaniments. Students will understand the role of musicians in various music settings and cultures.

Enrichment Program (3-8)

During this school year students will participate in a nine week engineering program and a nine week technology program. The engineering programs will introduce students to relevant engineering issues and design opportunities. The technology programs will give students the opportunity to learn about and enhance their coding and programming abilities.