6th Grade

Social Studies:

The contemporary social sciences are comprised of the studies of history, geography, economics, and civics. Through analyzing factual primary & secondary sources, learners will ask and research historical questions about the Western Hemisphere. Students will incorporate geographical tools, reasoning, and understanding to explore the impact of humans on the environment along with the environment's impact on culture. This course will task students with investigating the role of consumers along with the development of different economic systems. Students will identify various governmental structures along with the roles of their citizens.

"An educated citizenry is a vital requisite for our survival as a free people"
– President Thomas Jefferson

Science:

Students take on the role of student researchers as they work out and explain an anchoring phenomenon for all units which are: Microbiome, Metabolism, Thermal Energy, Ocean, Atmosphere, and Climate, Weather Patterns, and Earth's Changing Climate. Students will write scientific arguments and use evidence to support their claims. This course will incorporate Next Generation Science Standards and Colorado Standards. The scientific method, metric system, and 21st-century technology skills are also embedded in our curriculum. Students will use Chromebook computers to access Amplify which is the district web-based curriculum.

Language Arts:

In this course, students will focus on four areas. The first is Oral Expression and Listening. The students will practice their speaking and listening skills in small groups and in front of the whole class. The second area of focus is Reading for All Purposes. Through short stories, poetry, non-fiction, and a novel study the students will practice reading comprehension skills, some of which include summarizing, explaining, retelling, inferencing, and analyzing the literature. Paragraph and extended writing are emphasized in the third area, Writing and Composition. Students will focus on paragraph structure, responding to literature, and comparison and contrast essays. The last area of focus is Research and Reasoning. Students will conduct a mini research project. They will learn how to incorporate multiple sources into their writing and how to cite those sources properly.

Math:

This course will focus on five significant areas: (1) Using ratio and rate reasoning to multiply and divide numbers and using the concepts of ratio and rate to solve problems; (2) fluency in operations with fractions and decimals and extending the notion of numbers in the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions, equations, and inequalities; (4) Solving problems involving Area,

Surface Area, and volume with 2-dimensional and 3-dimensional shapes; and (5) advancing understanding of statistical applications.

Innovations:

Innovation Institute is an unique opportunity for your child in the 6th grade. This teacher-led program of choice focuses on scientific and mathematical practices, while integrating real world writing and reading skills. Students will encounter, practice, create and analyze content. They will utilize 21st Century technology on Chromebooks and iPads. Project Fridays will help students bring learning to life, and for professionals in the community to come share their time and expertise to generate opportunities for students to create and apply learning to real world solutions. Examples of our projects include solar cars and robots, coding, circuits, LED art, and physics of roller coasters and amusement park rides.

The curriculum is based on and will meet all requirements of sixth grade standards. Students at Innovation Institute will be prepared and challenged to succeed in not only sixth grade, but as they transition on to seventh grade and real-world ambitions. Through classroom, team, and project collaboration, students will gain effective problem-solving skills and confidence. Through technology (Chromebooks, iPads, Google Expeditions), students will develop mastery of skills needed for a successful aspiration to lead them into the fields of medicine, engineering, math, technology, and science if so desired.

7th Grade

Social Studies:

This course consists of an overview of the geography, civics, economies, and history of the Eastern Hemisphere. Topics of instruction include, but are not limited to: conflict, government systems, movement and migration, and how the arts can be used to tell the story of humans. Students should be able to make connections between previous eras and the world we live in today, as well as across different content areas. Students are taught how to investigate, communicate, and critically think through such methods as socratic seminars, digital presentations, and document-based questioning.

Science:

This course is designed to incorporate the Next Generation Science Standards which include disciplinary core ideas, science and engineering practices, and cross-cutting concepts. Through experimental design and scientific processes, students will apply skills to solve real world scenarios. During the first semester students will explore plate motion, rock transformations, and phase change. Moving into second semester, students will build on prior knowledge to investigate chemical reactions, populations and resources, and energy and matter in ecosystems.

Language Arts:

In this course, students will read a wide range of literature in a variety of genres, and they will also learn how to use written and oral language appropriately and effectively. Through conceptual units of inquiry, which include "Building Community," "Movement," "The Power of Change," and "Outside the Box," students will demonstrate skills outlined in the English Language Arts State Standards. These standards will be evaluated through three criteria set for this class: Analyzing, Organizing, and Using Language.

Math:

In this course the Colorado State Common Core Standards and the Mathematical Practice Standards guide instruction and student learning. Seventh Grade Common Core Standards focus on: Proportional Relationships; Operations with Rational Numbers - integers, decimals and fractions; Expressions and Linear Equations; Scale drawings and Geometric Constructions; Area of Circles, Surface Area of prisms and pyramids; and Volume of prisms and pyramids; Statistics and Probability. Within the content focus areas students will use prior knowledge, transition between theory and application, determine if an answer is reasonable, simplify equations, analyze and problem solve, investigate new learning, determine when to use which tools, and work on accurate calculation.

8th Grade

Social Studies:

In this course, students will study U.S. History following the Colorado State Standards: history, geography, economics, and civics. The course begins with a review of the Age of Exploration, followed by colonization and westward expansion. The second semester is spent studying the Revolutionary War, Civil War, and the U.S. Constitution. We will use primary documents and current events to examine the causes and effects of the major events in early American history.

Science:

This course is designed as an overview of multiple science disciplines detailed in the Next Generation Science Standards for 8th grade science. Different aspects of each discipline and standards will be assessed this year. Experimental design, technology, and the scientific method are embedded in all units of study as vehicles for scientific inquiry and student learning. The students will be using Amplify science to explore multiple disciplines of science and develop problem solving skills. Amplify science specifically includes units on harnessing human energy, force and motion, magnetic fields, light waves, Earth, Moon, and Sun, chemical reactions, weather patterns, and traits/reproduction. Though each unit appears as a stand-alone entity, the intention is to use information within and across disciplines to reach greater depths of understanding and work toward advanced problem solving within real-life scenarios.

Language Arts:

In this course students will become more responsive readers by analyzing novels, short stories, non-fiction, and poetry. Students will also refine their writing skills as they craft paragraphs, essays, poetry, short stories, and a research paper. These writing assignments will often be paired with a text that has been read in class. As they write students will learn how to incorporate multiple sources into their writing and how to cite those sources correctly. Students will have the opportunity to practice their speaking and listening skills in both small groups and in front of the class. Grammar will be incorporated into writing lessons throughout the year.

Mathematics:

Math (Pre-Algebra):

The purpose of this course is to satisfy the 8th Grade Mathematics requirement of the Common Core Mathematics Standards recently adopted by the State of Colorado. This course uses *Big Ideas Math: A Common Core Curriculum.* It fits into an overall program of mathematics studies with a rigorous academic core by extending what students have learned in the introductory-level mathematics courses as well as introducing more advanced topics. These advanced topics include: understanding our number system, single step and multi-step equations, solving, graphing, and writing linear equations and inequalities, linear systems, exponents, statistics and probability, scientific notation and polynomials.

Algebra 1:

The purpose of this course is to satisfy the Algebra I requirement of the Common Core Mathematics Standards recently adopted by the State of Colorado. This course uses *Big Ideas Math: A Common Core Curriculum.* It fits into an overall program of mathematics studies with a rigorous academic core by extending what students have learned in Pre-Algebra as well as introducing more advanced topics. These advanced topics include: understanding our number system, solving, graphing, and writing linear equations and inequalities, linear systems, exponents, quadratics, polynomials, exponential functions, and factoring.

ICAP (Individual Career and Academic Planning)

All students at Horizon Middle School will participate in a state and district-wide postsecondary planning program called ICAP. Counselors emphasize the importance and need for good postsecondary planning to ensure that all students will be prepared to make well-informed decisions about their future. Students use the YouScience, www.youscience.com to complete or update their ICAP each year. Middle school students explore career and higher education requirements to expand their knowledge, discover what the world of work is, and what their interests are related to career information. Students are advised that as they grow their interests will expand and they can expect changes in their goals and talents as well.

Leadership

Leadership is a class for 7th and 8th grade students who are interested in making a difference at Horizon Middle School. The goal of this class is to develop student leaders that positively represent the school by participating in a leadership curriculum, creating service learning projects and planning whole school and Renaissance events to recognize the staff and students of HMS. Students will learn the skills and behaviors of a good leader, including time management, communication, human relations, managerial skills, and project management.

Possible Curriculum:

-Jostens Renaissance Leadership Curriculum

Possible Books:

-The 7 Habits of Highly Effective Teens, by Sean Covey

-Authentic Teen Leadership, by Michael Nygren

Language Acquisition

Spanish -

Language Acquisition– Year 1 Spanish:

Year One Spanish focuses on developing communicative proficiency in the language. It is intended for students who have limited previous exposure to Spanish or who are new to the school. The course is based on thematic units, including family life, the school day, and healthy living. Along with speaking, writing and listening to Spanish, we will spend time reading in the target language. In addition, students will study the geography and culture of the Spanish-speaking world.

Offered to Grades 6, 7, 8

Language Acquisition– Year 2 Spanish:

Year Two Spanish focuses on developing communicative proficiency in the language. It is intended as a continuation of the Year One Spanish class. The course is based on thematic units, including places in the community, daily life around the house, and leisure activities. Along with speaking, writing and listening to Spanish, we will spend time reading in the target language, both as a class and individually. In addition, students will study the geography and culture of the Spanish-speaking world.

Offered to Grades 7, 8

Language Acquisition – Year 3 Spanish:

Year Three Spanish focuses on developing communicative proficiency in the language. It is intended for students who have taken Spanish during their two previous

years at Horizon Middle. The course is based on thematic units, including communications and media, childhood experiences, and travel. Along with speaking, writing and listening to Spanish, we will spend time reading in the target language, both as a class and individually. In addition, students will study the geography and culture of the Spanish-speaking world. Offered to Grade 8 only

English Language Development -

Students in ELD focus on reading, writing, listening and speaking using academic English in all classes. All ELD students focus on acquiring vocabulary that is used in our classroom and in their core classes. Students are expected to understand and use the vocabulary in class discussions and bi-weekly writing assignments.

RACE (restate, answer, cite, explain) is the writing structure that is taught and expected to be used in writing short answer responses and essays during their time here at Horizon. Students will be exposed to a variety of speaking assessments including Google Voice and debates. Reading skills are supplemented with the use of technology such as Lexia PowerUp. Content related videos aim to improve listening skills.

Our class uses Google Classroom to submit most projects and work. Students will use a variety of other applications to help supplement skills needed for acquiring English.

Physical Education

Physical Education

Physical Education is a semester long course with a standards-based curriculum. Students will be tested at the beginning of the semester on their level of physical fitness. They will create a fitness goal for the area of fitness they want/need to improve as well as a fitness plan to help them achieve their goal. We will do a mid-semester status check on their goal to allow them to adjust or modify their plan to ensure they achieve their goal. At the end of the semester, we will test them again on all four elements. In between the fitness units, students will be introduced to units on individual and team sports. These units are designed for learning good sportsmanship, movement concepts, discipline, fundamental skill acquisition, and to understand the strategy and purpose of sport play. Personal wellness and safety is stressed during every class through aerobic and muscular strength conditioning and exploration of movement.

Aerobic/Dance Fitness

Aerobic/Dance Fitness is a semester long class that is standards based curriculum. Students will be exposed to several different forms of aerobic fitness. While in the different unit students will learn to goal set, experience different cultures through dance, as well as learn to track heart rate for maximum fitness during aerobic activity. Personal health and wellness is stressed during each unit. The goal is to create a sustainable healthy lifestyle through these activities in and outside of school.

DESIGN

Gateway (GTT) -

6th Grade:

Computer Applications:

Students will learn new applications in technology to include skills they will need throughout secondary school and beyond. Learners become more independent while navigating a variety of digital technology. Topics include Digital Citizenship, Google Applications, keyboarding and device care.

Health Science:

Healthcare equipment manufacturing of assistive devices in relation the pathophysiology of specific disease processes and/or traumatic injuries as well as Greenhouse Design and maintenance.

Pre-Engineering:

Students apply the design process to make physic museum demonstrations and exhibits and engineer solutions to problems as they learn about simple machines and mechanical advantage.

7th Grade:

Design & Modeling:

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to create problem solving designs, capturing research and ideas in their engineering notebooks. Using design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

PLTW -Computer Science for Innovators and Makers

This class teaches students that programming goes beyond the virtual world into the physical world. Students are challenged to creatively use sensors and actuators to develop systems that interact with their environment. Designing algorithms and using computational thinking practices, they code and upload programs to microcontrollers that perform a variety of authentic tasks. The unit broadens students' understanding of computer science concepts through meaningful applications.

Career Exploration:

Students will explore the career planning process. The main goal is for them to become familiar with the process and to understand some of the resources that are

available to help them. They will develop a career plan that includes self-assessments, career research, SMART goals and exploration of potential barriers and alternate careers. They will also practice resume writing, interview skills and professional business etiquette.

Personal Finance:

Students will understand how their personal choices can affect their financial circumstances and how their financial circumstances will ultimately impact their lifestyle choices. This unit of study is intended to increase their knowledge of personal finance concepts in order to make good financial decisions. The goal is to provide the foundational knowledge so they will know how to live within their means.

Flight & Space:

The exciting world of aerospace comes alive through Flight and Space. During this unit, students delve into the history of flight and space, discover the science behind aeronautics and explore traveling and living in space. Students are then challenged to use their knowledge to design, build, and test different types of aircraft.

Forensics:

The application of a broad spectrum of sciences (Medicine, Toxicology, Engineering, Pathology, Anthropology, etc) to investigate and establish facts in the interest in relation to criminal or civil law.

Magic of Electrons:

Students explore electricity, the behavior and parts of atoms, and sensing devices through hands-on projects. They learn knowledge and skills in basic circuitry design, and examine the impact of electricity on the world around them.

8Th Grade:

Introduction to Computer Science 1:

Studies show that by 2018, 1.4 million job openings will be available for computer specialists. In this unit, students discover the principles of this fast-growing field by focusing on creativity and an iterative design process as they create their own basic apps using MIT App Inventor.

Introduction to Computer Science 2:

Students continue to explore the fundamentals of the stimulating career path of computer science. They venture into text programming through Python and, in the final problem, develop an app to crowd source and analyze data on a topic of their interest.

Automation and Robotics:

Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program

real-world objects such as traffic lights, toll booths, and robotic arms.

Design & Modeling:

Project Lead the Way (PLTW) Design and Modeling (DM) provides students opportunities to apply the design process to creatively solve problems. Students learn and utilize methods for communicating design ideas through sketches, solid models, and mathematical models. Students will understand how models can be simulated to represent an authentic situation and generate data for further analysis and observations.

Energy and the Environment:

Students learn about kinetic, potential, and mechanical energy and forms of energy through hands-on engineering activities and apply them to solve real-world energy problems through engineering challenges.

Career Explorations:

Students will explore the career planning process. The main goal is for them to become familiar with the process and understand some of the resources available to help them. Students will develop a career plan that includes a simple self-assessment, selection of an occupation of interest, definition of goals to obtain the occupation, potential barriers and alternate careers. Students will also practice resume writing, interview skills and professional business communications. Students will also continue to work on their keyboarding skills and review responsible online behavior through a unit on Digital Citizenship.

Health Science:

Emergency Medicine, CPR AED First Aid Certification, Health Chemistry (Creating Health Products).

Intervention -

Math Intervention (MATH 180):

In this course the focus will be on strengthening students' overall foundational Math skills in order to be successful in grade level Math classes. These courses are intended to create confidence in mathematical abilities by providing precise and accurate processes in solving math problems.

Course 1 will have a focus on multiplying and dividing whole numbers, understanding parts of a whole with a progression to operations with parts of a whole, understanding place values and operations with decimals, and finishing with positive and negative values on a number line.

Course 2 will have a focus on understanding and applying Rates in time, Ratios and Rates, Ratio relationships, percent and proportional reasoning, and proportional relationships. These skills will be retaught through direct variation and cross proportionality.

Reading Intervention (READ180):

In this course the focus will be on strengthening students' overall foundational Reading skills in order to be successful in grade level classes and beyond. These courses are intended to create confidence in reading abilities by providing intentional instruction and practice at student specific reading levels. Students will explore a variety of topics, while building necessary comprehension skills. The course is based off of a rotation schedule of Independent Reading of individual reading levels, various reading skills addressed through level-specific computer applications, and small and whole group reading comprehension instruction.

Media -

Broadcasting Year I - 7th Grade:

Year I is an introduction to design through video. Learners will understand the basics of storytelling with technology. Students will be introduced to the Premier Pro CS6 editing software. Projects and responsibilities will include an introduction to the design cycle, interview skills, video composition, and creating basic broadcasts. Learners must be able to work well with a team, as well as, independently. There are no prerequisite skills other than the desire to create! This course will run as a semester class for 7th graders.

Broadcasting Year II – 8th Grade:

After completing Year I, interested learners will move on to Year II, where technical skills will be refined and polished. This year will allow participants to use inquiry and research to decide on the projects they will pursue. The course is also based on the Design Cycle and will focus on using researching, designing, creating solutions, and evaluating work. Projects will be learner driven and align with our professional conduct and positive focus. Students will again use the Premier Pro Editing software, but will delve deeper into the powerful tools available. Students who have taken Year I will have enrollment priority.

ARTS

Visual Arts -

6th Grade Art:

This art course is designed to give 6th graders a sampling of art projects that emphasize the elements (line, form, color, value, texture, space, and shape). Understanding and appreciation of self and others through art history and culture is emphasized. A variety of media and techniques create an active learning experience.

7th Grade 2D Art/Photography:

This art course is designed to allow each 7th grade student to explore basic design, drawing, painting, and photography/photoshop. Projects focus on introducing and developing the elements of art (line, form, color, value, texture) and principles of design (balance, variety, harmony, emphasis). Students will share and express their own perspectives through art while developing an appreciation for others'. Students will create two-dimensional projects.

7th Grade 3D Art:

This art course is designed to allow each 7th grade student to explore design, ceramics and sculptural techniques. Students will focus on creating three-dimensional pieces that further develop the elements of art (line, form, color, value, texture, space) and principles of design (balance, variety, harmony, contrast, emphasis). Students will share and express their own perspectives through art while developing an appreciation for others'.

8th Grade 2D Art:

This art course is designed to allow each 8th grade student to explore design, drawing, and painting techniques. The 8th graders will create two dimensional pieces that further develop the elements of art (line, form, color, value, texture, space) and principles of design (balance, variety, harmony, contrast, emphasis). Students will have the opportunity to make personal choices about the creation of their art as well as develop an understanding and appreciation of self and others. There will be a special focus on producing strong craftsmanship and creativity in their work as well as observing this in the work of other artists.

8th Grade 3D Art/Photography:

This art course is designed to allow each 8th grade student to explore design, ceramics, sculptural and photography/photoshop. They will focus on creating three-dimensional pieces that further develop the elements of art (line, form, color, value, texture, space) and principles of design (balance, variety, harmony, contrast, emphasis). Students will have the opportunity to make personal choices about the creation of their art as they focus on producing strong craftsmanship and creativity in their work.

Band -

6th Grade: Year

This is a beginning band class that will develop basics and understanding of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, completion of the beginning method book "Tradition of Excellence," selected sheet music, and performing in 2-3 concerts during the school year. Students in this class are responsible for the following: a well-working instrument, rented or bought, specific instrument accessories such as reeds or valve oil (please see the instrument description and responsibilities list for specifics, Mrs. H will hand this out at the beginning of the school

year), and a $15 band fee that will be used to purchase their method book and sheet music for the school year.

7th Grade: Year

Students in the 7th grade band will develop proficiency and understanding of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, selected sheet music, solo and ensemble, and performing in 2-3 concerts during the school year. Students in this class are responsible for the following: a well-working instrument rented or bought, specific instrument accessories such as reeds or valve oil (please see the instrument description and responsibilities list for specifics, Mrs. H will hand this out at the beginning of the school year), and a $15 band fee that will be used to purchase their method book and sheet music for the school year.

8th Grade: Year

Students in the 8th grade band will develop proficiency and advanced thought processes of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, selected sheet music, solo and ensemble, as well and performing in 2-3 concerts during the school year. Students in this class are responsible for the following: a well-working instrument rented or bought, specific instrument accessories such as reeds or valve oil (please see the instrument description and responsibilities list for specifics, Mrs. H will hand this out at the beginning of the school year), and a $15 band fee that will be used to purchase their method book and sheet music for the school year.

Orchestra -

6th Grade:

This is a beginning orchestra class that will develop basics and understanding of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, completion of the beginning method book "Essential Elements, book 1," selected sheet music, and performing in 2-3 concerts during the school year. Available instruments are violin, viola, cello, and string bass. Students in this class are responsible for the following: a well-working instrument, rented or bought, specific instrument accessories such as rosin or a shoulder rest (please see the instrument description and responsibilities list for specifics, Mrs. Leonhardt will hand this out at the beginning of the school year), and $15 orchestra fee that will be used to purchase the method book, sheet music, and the orchestra polo t-shirt that is worn for concerts. Students may keep their method book and t-shirt.

7th Grade:

The 7th grade orchestra a level 2 class meant to build on the skills of 6th grade. The 7th grade orchestra is a competitive orchestra. Students in the 7th grade orchestra will develop proficiency and understanding of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, completion of the beginning method book "String Explorer Book 2," selected sheet music, and performing in 3-4

concerts during the school year. These students travel to the Colorado Large Group Festival and the Music in the Parks Festival. Available instruments are violin, viola, cello, and string bass. Students in this class are responsible for the following: a well-working instrument, rented or bought, specific instrument accessories such as rosin or a shoulder rest (please see the instrument description and responsibilities list for specifics, Mrs. Leonhardt will hand this out at the beginning of the school year), and $15 orchestra fee that will be used to purchase the method book, sheet music, and the orchestra polo t-shirt that is worn for concerts. Students may keep their method book and t-shirt. Prerequisite: 1 year or more of playing or permission from Mrs. Leonhardt plus private instruction outside of school.

8th Grade:

The 8th grade orchestra a level 3 class meant to build on the skills of 7th grade. The 8th grade orchestra is a competitive orchestra. Students in the 8th grade orchestra will develop proficiency and understanding of the following: rhythmic reading, rhythmic notation, note reading, listening skills, practicing habits, completion of the beginning method book "Sound Innovations, Green Book," selected sheet music, and performing in 3-4 concerts during the school year. These students travel to the Colorado Large Group Festival and the Music in the Parks Festival. Available instruments are violin, viola, cello, and string bass. Students in this class are responsible for the following: a well-working instrument, rented or bought, specific instrument accessories such as rosin or a shoulder rest (please see the instrument description and responsibilities list for specifics, Your teacher will hand this out at the beginning of the school year), and $15 orchestra fee that will be used to purchase the method book, sheet music, and the orchestra polo t-shirt that is worn for concerts. Students may keep their method book and t-shirt. Prerequisite: 1 year or more of playing or permission from the teacher plus private instruction outside of school.

Choir –

6th Grade:

This is a semester-long class that meets every day. We will sing a wide variety of music including world music, popular, and traditional. This class will also have a general music component that will include music theory, listening, and critiquing. We will have one or two performances per semester.

7th Grade:

We offer both year-long and a semester-long classes that meet every day. We will sing a wide variety of music including world music, popular, and traditional. Students will advance in their learning of sight-reading and technique. In this class, there is an emphasis on personal musicianship. Year-long choir will have three to four performances per year semester choir and one to two per semester.

8th Grade:

This is a year-long class that meets every day. We will sing a wide variety of music including world music, popular, and traditional. Students will advance further in their learning of sight-reading and technique. In this class, there is an emphasis on personal musicianship. Students will also learn how to be a leader through music. This class will have three to four performances per year and possibly contest in the spring.