

Timberline Middle School

8th Grade Course Catalog



Sample Schedule:

Period	Semester 1	Semester 2
1	Language Arts/Social Studies (Block) (English 8/US History 2)	Language Arts/Social Studies (Block) (English 8/US History 2)
2	Language Arts/Social Studies (Block) (English 8/US History 2)	Language Arts/Social Studies (Block) (English 8/US History 2)
3	Math	Math
4	Science	Science
5	PE	Elective Choice
6	Elective Choice	Elective Choice

Sample Schedule: Music Elective

Period	Semester 1	Semester 2
1	Language Arts/Social Studies (Block) (English 8/US History 2)	Language Arts/Social Studies (Block) (English 8/US History 2)
2	Language Arts/Social Studies (Block) (English 8/US History 2)	Language Arts/Social Studies (Block) (English 8/US History 2)
3	Math	Math
4	Science	Science
5	PE	Elective Choice
6	Music Elective (Band, Orchestra, or Choir)	Music Elective (Band, Orchestra, or Choir)

- At Timberline, we believe that student engagement is directly correlated with interest. We support student choice and do our best to place students in electives that they have requested. However, this is not always feasible based on the schedule layout, so we appreciate your consideration and understanding if you do not end up in the electives that you have requested. We will always do our best to try to make this happen, and there will be time in the first couple of weeks to allow for students to request to change their electives, but there are no guarantees.***

When student schedules are created, the following factors are carefully considered:

- Core requirements (and what class periods they are available)
- Classroom size/ balancing classroom size across the building
- Available courses
- Registration course requests
- Specific student needs (examples: Special Education, Safety Net, English Language Learner)
- Dynamics of students within a specific classroom

8TH GRADE REQUIRED COURSES:

English 8 and US History 2 (BLOCK) - Required

FULL YEAR

English 8 and United States History 2/WA State, also known as Language Arts and Social Studies (LA/SS), is a year-long, two-period block class which integrates writing, reading, speaking, listening, and technology skills in combination with a study of United States and Washington State history. The Washington State K-12 Learning Standards (Common Core State Standards) are the basis for our English Language Arts program. Areas of focus include grammar usage, punctuation, and sentence structure as well as expository, argumentative, and narrative writing. Students participate in three major book studies and study additional fiction, nonfiction, short story, and poetry selections. The Lake Washington Social Studies Power Standards are the basis for our social studies program. Historical studies focus on the Post-Civil War Reconstruction period to the present. Washington State history is also taught within the historical content. Students will use textbooks to support their learning and a variety of reference sources with an emphasis on analysis of primary sources. Students are assessed in a variety of ways which include the following: essays, projects, presentations, group work, performances, and tests. NOTE: A passing grade in either semester fulfills the WA State History Graduation Requirement.

8th Grade Mathematics - Required

FULL YEAR

In this course instructional time focuses on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation and solving linear equations and systems of equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. District-adopted curriculum: Glencoe Math Course 3

NOTE: Depending on individual level and need, students who qualify may receive special education services in a general education math class (this will be determined by special education team).

Algebra 1

FULL YEAR

Prerequisite: Meet or exceed the district algebra placement requirements.

This course is a high school level algebra course that prepares students for State mandated testing required for high school graduation. Students should expect significant rigor because 6th grade students skip both 7th Grade Math and 8th Grade Math courses. There are concepts in both 7th and 8th Grade Math that are not taught to 6th graders. Students should have mastered 6th grade concepts that are reinforced in 7th/8th grade. These include operations with fractions, decimals, percentages, basic exponent concepts, and applying order of operation rules. In addition, the 7th/8th grade concepts of calculating all integer operations is covered quickly during 1st quarter. Learning what is taught in 7th and 8th grade, and Algebra, at the same time is challenging. Perseverance is an important component for success. The course focuses on five critical areas: (1) develop fluency writing, interpreting, and translating between various forms of linear equations and inequalities, and simple exponential functions, and using them to solve problems; (2) compare and contrast linear and exponential functions, translate between different representations, use function notation, and interpret arithmetic sequences as linear functions and geometric sequences as exponential functions; (3) using regression techniques to describe linear relationships quantitatively and make judgments about the appropriateness of linear models; (4) extend the laws of exponents to rational exponents, see structure in and create quadratic and exponential expressions, and solve equations, inequalities and systems of equations involving quadratic expressions; and (5) compare quadratic, linear, and exponential functions to model phenomenon. They also identify the real solutions of quadratic equations as the zeroes of

a related quadratic function and expand their experience to more specialized functions – absolute value, step, and those that are piecewise-defined.

Geometry

FULL YEAR

Prerequisite: *Algebra 1 complete.* Staff recommends that students have a B grade or better in Algebra prior to starting Geometry. In Geometry, students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. The course focuses on six critical areas: (1) using previous experience with rigid motions, students develop notions about what it means for two objects to be congruent, establish triangle congruence based on these rigid motions along with formal constructions, and use this as a familiar foundation for the development of formal proof, solving problems and proving theorems about triangles, quadrilaterals, and other polygons; (2) build a formal understanding of similarity, using earlier experience with dilations and proportional reasoning, and apply similarity to right triangle trigonometry and the Pythagorean Theorem, and use the Laws of Sines and Cosines to find missing measures; (3) work with the geometry of two- and three-dimensional objects, as well as shapes of cross sections and the result of rotating a two-dimensional object about a line; (4) build on the previous work with the Pythagorean Theorem to find distances and use a rectangular coordinate system to verify geometric relationships, including properties of special right triangles and quadrilaterals, slopes of parallel and perpendicular lines, and the connection of geometric and algebraic definitions of the parabola; (5) prove basic theorems about circles, and use coordinate geometry to find equations of circles and determine intersections between lines and circles or parabolas, or between two circles; and (6) compute and interpret theoretical and experimental probabilities of compound events to make informed decisions, and make use of geometric probability models whenever possible. The Mathematical Practice Standards apply throughout the course, and together with the content standards allow students to experience math as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

8th Grade Science - Required

FULL YEAR

This inquiry-based science course builds on Physical, Earth and Life Science concepts and processes introduced in grades 6-7. Physical, Earth, and Life Science are investigated with increasing depth where students plan and conduct their own experiments. Content topics include Newton's laws and kinetic energy, wave properties and application in technology, sun- earth-moon system including seasons, the moon, and eclipses, gravitational forces and scale of the universe, natural selection and adaptations, and evidence of evolution. We follow the Next Generation Science Standards utilizing crosscutting concepts, and science/engineering practices, embedded in the disciplinary core ideas. Students will also complete two semester long projects that enhance their application of engineering practices and cross curricular learning.

NGSS Cross-Cutting Concepts in Science include:

- Patterns
- Cause and Effect
- Scale, Proportion, and Quantity
- Systems and Systems Models
- Energy and Matter
- Structure and Function
- Stability and Change

NGSS Science and Engineering Practices:

- Asking Questions and Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence

- Obtaining, Evaluating, and Communicating

8th Grade PE- *Meets PE Requirement

SEMESTER

In Sports and Fitness, students develop competence in motor skills for a variety of team and individual sports. Students will learn to demonstrate proper sportsmanship and etiquette. Students will set fitness goals, track progress, and participate in activities that improve health-related and skill-related fitness. This class will also cover learning to work out properly using the five components of fitness.

Timberline students are required to purchase a PE uniform, the uniform consists of three options. Each student must purchase at least a top and a bottom. The top is a black short sleeve t-shirt. The bottom options are green shorts or black cotton sweatpants. The prices are as follows:

- Short sleeve T-shirt - \$8.00
- Shorts - \$7.00
- Sweatpants – Youth Size: \$10.00 Adult Size: \$13.00

Dance (6th, 7th, and 8th grade) *Meets PE Requirement

SEMESTER

Dance is a course designed to help students develop self-discipline, confidence, and skills for healthy living through expressive movement. Students will learn vocabulary, general principles, and techniques of jazz, ballet, contemporary, lyrical, and hip-hop dance. Audience etiquette, dance history, cultural relevance, and the choreographic process are included in the course through small group projects and class performances.

Dance Uniform Requirement- Timberline dance students are required to purchase the dance shirt. The black printed shirt is used for class practice and performances. Students will also need to provide their own solid black leggings or pants.

T-shirt \$12.00

Personal Fitness (7th and 8th Grade) – *Meets PE Requirement

SEMESTER

In Personal Fitness students learn to work out properly, experience fitness in fun, exciting new ways, set own personal fitness goals and learn how to reach them. Each class period will be organized to meet multiple health and skill related fitness components (circuit training, core, flexibility, muscular strength, cardio activities).

Timberline students are required to purchase a PE uniform, the uniform consists of three options. Each student must purchase at least a top and a bottom. The top is a black short sleeve t-shirt. The bottom options are green shorts or black cotton sweatpants. The prices are as follows:

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- Shorts - \$7.00
- Sweatpants – Youth Size: \$13.00 Adult Size: \$16.00

8TH GRADE ELECTIVES:

Spanish (8th Grade)

FULL YEAR

Spanish (8th Grade) FULL YEAR Spanish 1 fulfills LWSD graduation requirements, it is a yearlong class designed to develop basic proficiencies in the four skills of communication: listening, speaking, reading, and writing. The content will include vocabulary common to daily needs, basic grammatical structures, and development of sensitivity to an acceptance of cultural differences. This is a rigorous course requiring homework, strong study skills, attentive listening, **note taking** and writing practice. The students will be able to write short paragraphs in the present tense and to read short selections, answering questions in Spanish. This is a class for high school credit and is fast paced. Additionally, work expectations and grading requirements will reflect the high school World Language Department at Redmond High School, in order to create an equitable Spanish 1 experience for all students.

Leadership 1 (7th and 8th Grade)

SEMESTER

Leadership 1 is a one semester class for responsible and innovative seventh and eighth graders who wish to make a difference at Timberline Middle School. Students are responsible for organizing and helping with student recognition. The class is based on the book titled, *The World's Most Powerful Leadership Principle*. Students will gain important communication skills, the qualities of strong teams, and strategies to build their character. In additions, students will learn important key ideas to gain influence and have fun serving your school. Students do not need to turn in an application to be in Leadership

Leadership 2 (8th Grade)

SEMESTER

Leadership 2 is a one semester class for responsible and innovative 8th graders. The class is based on the book titled, *The World's Most Powerful Leadership Principle*. Students will gain important communication skills, identify the qualities of strong teams, and practice strategies to build their character. In this class, students will plan assemblies, dances, charity drives, student recognition events, and lunchtime activities. Be prepared to make a positive, lasting difference in our school as a result of your hard work. Students must be cleared by administration and have all C's or above in their spring semester of 7th grade year. If there are more students than the class can accommodate a lottery will be used to determine placement.

Design and Modeling (6th, 7th, and 8th Grade)

SEMESTER

Students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions. Demonstrate and expand your skills in leadership, critical thinking and problem solving. Learn about engineering, manufacturing, basic woodworking and workplace readiness skills while incorporating academic concepts and the process of design and developments. Instruction includes sketching, measurement, safety, and use of common woodworking tools and machines. Fee \$15

Green Sustainable Design (6th, 7th and 8th Grade)

SEMESTER

Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. Students use what they learn to design and model alternative energy sources, as well as evaluate options for reducing energy consumption. Student learn how to apply green concepts to the fields of architecture and construction. They explore dimensioning, measuring, and architectural sustainability and apply what they have learned to design affordable housing units. Fee \$15

Medical Detectives and Forensic Science (7th and 8th Grade)

SEMESTER

Medical Detectives: Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose various diseases. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, dissect a sheep brain, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction. Fee \$25

Automation and Robotics (7th and 8th Grade)

SEMESTER

Students learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation, and computer control systems. Using the VEX Robotics® platform, students apply what they know to design and program traffic lights, robotic arms, assembly line components and more. Participate in a variety of robotic projects as you experience the jobs of a Mechanical, Electrical and Computer Engineer. Apply the design process as you use industry-leading technology, learn sketch techniques, measuring and dimensioning, and computer modeling fundamentals necessary to solve an engineering problem. Design mechanical and automated systems that meet desired needs within realistic constraints. Fee \$15

Flight and Space (7th and 8th Grade)

SEMESTER

The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil. This course prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing, and testing aircraft, spacecraft, and their systems. Includes instruction in aircraft/spacecraft systems technology; design and development testing; inspection and maintenance procedures, instrument calibration, test equipment operation; maintenance and report preparation. Fee \$15

App Creators and Game Design (7th and 8th Grade)

SEMESTER

This unit will expose students to computer science as a means of computationally analyzing and developing solutions to authentic problems through mobile app development. It will also convey the positive impact of the application of computer science to other disciplines and to society. Students will learn programming and creative skills to design and develop various 2-dimensional video games. Fee \$15

Drawing and Painting (6th, 7th and 8th Grade)

SEMESTER

Discover and develop the artist in you! Modeling (shading with respect to a light source) and color theory are emphasized in drawing and painting projects. Linear and atmospheric perspective techniques are also taught to create an illusion of depth in any subject matter. Proportion of facial features and rotation of the human head is explored and applied to portraits. Learn how to draw what you see and what you can imagine. Fee \$25

Ceramics: (6, 7, and 8th Grade)

SEMESTER

This introductory ceramic course is intended for those of you who have some experience drawing but want to expand your artistic abilities with 3-dimensional design. This class will focus on studio work leading to the completion of five projects. You will learn basic ceramic hand-building methods, ceramic glazing procedures, different decorating techniques and ceramic technology and terms. Fee \$30.00

Drama (6th, 7th, and 8th Grade)

SEMESTER

Do you enjoy acting, telling a story, or entertaining others? This class is for students who enjoy performing in front of peers. It is designed to help students' express thoughts, feelings and ideas through various learning experiences. Students will participate in individual and group exercises with monologue, improvisation, storytelling, skits and more. In addition to onstage skills, students will also develop knowledge of stage crew activities, including props and costume.

Food Science & Sustainability (7th & 8th Grade)

SEMESTER

Learn how to cook, bake, and more in this class as we prepare and study a wide variety of foods! You will get to grow & harvest your own herbs, fruits, and vegetables in our school garden and cook with what you grow. We will investigate bacteria in food and how to prevent it, study nutrition, create recipes from scratch, and examine the science behind baking. Sustainability topics will include organic farming and GMO's, climate change in relation to food production, use of technology in food growth and seasonal cooking. All diets are welcome. Fee \$25.00

International Foods (7th and 8th Grade)

SEMESTER

If you would like to travel the world together tasting different kinds of foods from many cultures, this is the class for you! This semester course is designed for the open-minded student who wishes to prepare a variety of foods originating from all over the world. Various places of the world will be covered including countries in South America, Europe, Asia, and the Mid-East. Students will work collaboratively to study customs, food habits, and cooking techniques unique to different countries. Guest Chef's will be invited to share their cultural cooking styles with us. All diets are welcome. Fee \$25.00

Dance (6th, 7th, and 8th grade) *Meets PE Requirement

SEMESTER

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Concert Choir (6th, 7th and 8th Grade)

FULL YEAR

If you can talk, you can sing! Signing up for this course will help you use your voice to develop a love for singing as well as your self-confidence as a singer. Join this group of students who come together to sing, laugh, and learn, creating an unforgettable musical experience daily. If you were in choir last year, come join another fun-filled year in Chorus! Your experience is SO valuable in making this group great and taking it to the next level. (Students have performing opportunities in large group concert, solo, and small ensemble music.) Beyond music, this class helps prepare you to perform/communicate in front of others and gain confidence in being on stage.

Requirements

- Evening concert attendance is required
- ASB membership
- Daily at home practice
- Participation in fundraisers may be necessary to help fund field trips

Orchestra (6th, 7th, and 8th Grade)

FULL YEAR

Students in String Orchestra will learn more advanced techniques on their instrument in a class setting. Emphasis will be on ensemble playing as well as building on the student's individual skill level. Regular concerts and regular individual practice will be part of the curriculum. It is highly recommended that any student who chooses to begin orchestra at the middle school level take private lessons.

Requirements

- Evening concert attendance is required
- ASB membership
- Daily at home practice
- Participation in fundraisers may be necessary to help fund field trips
- Essential Elements for Strings Book 2

Concert Band (6th, 7th, and 8th Grade)

FULL YEAR

For students who have had 1-2 years of band experience. Music reading and instrumental rehearsal and performance skills are improved by focusing on several method books and appropriate literature in various musical styles. We will work out

of Essential Elements for Band Books 1 and 2. Students also evaluate recorded performances of themselves and others through written concert reviews, developing writing skills. We have several performances in the school and community, as well as festival appearances. Marching band experience is offered.

Requirements:

- Regular practice
- Provide own instrument or rent from music shop or school (depending upon instrument).
- Participation in evening concerts is required. All music students are required to purchase an ASB

Symphonic Band (7th and 8th Grade)

FULL YEAR

Prerequisites: Successful completion of Concert Band. 2-3 years of instrumental experience or director's permission. This class provides continued focus on developing reading strategies and performance skills through increasingly advanced literature, solo and chamber music, and numerous performance opportunities. We will work out of Essential Elements for Band Book 2, and Standards of Excellence Book 3, and will have completed the common scales. Performance evaluations through written reviews and rubric-scored tests help students develop self-evaluation and strategize for improvement. Marching Band and small group experience is offered.

Requirements:

- Provide own instrument or rent from music shop or the school (depending upon instrument).
- Participation in evening concerts and festivals is required.
- All music students are required to purchase an ASB card.

Jazz band (6th, 7th and 8th Grade)

FULL YEAR

Jazz Band is a zero-period class- meaning it runs before school starts (6:45 AM – 7:35 AM). Students with music experience can join this class to play jazz music from across various eras and cultures! There is an emphasis on performance skills and techniques, **and as such this class is only offered for those who are already enrolled in either Concert Band or Symphonic Winds** (unless approved by Mr. Atkins). No audition to join is required, but there will be proficiency requirements to perform at festivals and other outside performance opportunities. Standard instruments played in jazz band are saxophones (no soprano), trumpets, trombones, upright/electric bass, acoustic/electric guitar, piano, drumkit, Latin percussion, and vocals.

Wind Ensemble (8th Grade)

FULL YEAR

Prerequisites: Successful completion of Concert Band. 2-3 years of instrumental experience or director's permission. This class provides continued focus on developing reading strategies and performance skills through increasingly advanced literature, solo and chamber music, and numerous performance opportunities. We will work out of Essential Elements for Band Book 2, and Standards of Excellence Book 3, and will have completed the common scales. Performance evaluations through written reviews and rubric-scored tests help students develop self-evaluation and strategize for improvement. Marching Band and small group experience is offered.

Requirements:

- Provide own instrument or rent from music shop or the school (depending upon instrument).
- Participation in evening concerts and festivals is required.
- All music students are required to purchase an ASB card

Peer Tutor in the Transition Program (7th and 8th Grade)

SEMESTER

Student Aides support student learning in the Transition Program. Designed for patient and caring students who wish to gain skills in serving as positive role models and peer mentors. Limited aide positions are available, if there are more students than the class can accommodate a lottery will be used to determine placement.

Study Skills (7th and 8th Grade)

SEMESTER

In Study Skills students will focus on learning skills that will help them maximize their learning. Strategies that will be focused on include: organizational skills, goal setting, note taking, calendaring, prioritizing, test taking skills and self-

advocacy. Student use of electronic academic tools will also be taught. This includes the use of PowerSchool and accessing online grade-book data. This class is prioritized for students that are recommended for it by Timberline staff members.

Safety Net (6th, 7th and 8th Grade)

SEMESTER

Prerequisite: Qualifying assessment scores and teacher recommendation

Safety Net is a one or two semester class for qualified students needing academic support and remediation in reading, writing, and/or math. Students will receive extra help on their assignments, projects, and test preparation, as well as targeted instruction in reading, writing, and/or math. The class will include small group instruction, peer tutoring, and one-on-one assistance.

NOTE: This class is based on score results of state testing and/or academic grade performance, some students may be placed in an intervention support class such as Safety Net or Study Skills, in lieu of elective class requests.