WEBBER MIDDLE SCHOOL
8TH GRADE COURSE DESCRIPTIONS

REQUIRED COURSES

Social Studies 8: This course is an overview of United States History with a strong emphasis on civics, economics, and geography. The 3 major focus areas include Exploration and Settlement, Development of Constitutional America, and The Expanding Nation - economic growth and development of the U.S.

English/Language Arts 8: The eighth-grade English course is devoted to developing communication and thinking skills through the integrated study of language, literature, and writing. Language study emphasizes sentence patterns, punctuation, spelling, vocabulary, and usage. The study of the writing process includes further development of skills and working with multi-paragraph writings in narrative, descriptive, and expository writing. The study of literature includes the genre or thematic approach, stressing an understanding of literary terminology and author's purpose.

English/Language Arts 8 Honors: This course is recommended for the Gifted and Talented student who seeks additional information and depth in literature and writing. The curriculum follows the guidelines of the required English and Pre-AP English 8, adding materials and projects for highly motivated students. Students are offered opportunities to explore a variety of reading and writing, and to pursue areas of interest in depth.

English/Language Arts 8 Strategic (Reading Literacy 8): If reading tests indicate that a student is not at a proficient level, he/she will be placed in Reading Literacy 8 – a yearlong class. Reading Literacy 8 is designed for 8th graders who may have difficulty with textbook reading assignments and state reading proficiency tests. Emphasis is on reinforcement of basic reading skills, including phonics, vocabulary knowledge, comprehension, and study-reading skills.

The Colorado Basic Literacy Act requires special service in reading for students who have not been proficient or advanced in prior years of CMAS state testing. In accordance with that law, 8th graders whose test records indicate a need for such instruction will be registered for Reading Literacy 8. That smaller group class will provide diagnosis and instruction aimed at improving reading fluency and comprehension, in preparation for our state CMAS reading tests. If spring CMAS reading tests indicate growth to a proficient level, an adjustment in the student's schedule will be made.

Science 8: This course is designed for all students and is the third of three courses that meets the Colorado State and Poudre School District Content Standards for Science grades 6 - 8. The major topics covered in the 8th grade is: Forms and Transfer of Energy: Physics; Properties of Matter: Chemistry; Living Systems: Ecology and Earth Systems - Earth's Composition, Processes, and History.

Science 8 Honors (Algebra-Based): Based upon the same curriculum and standards as Science 8, this is an advanced science course that introduces students to the fields of chemistry, physics, and earth science. Prerequisite: Must be enrolled in Algebra 1 or Geometry.

Math 8 (meets daily): In 8th grade, students will build upon their knowledge and understanding of generating equivalent expressions, ratios and proportions, exponents, and volume of prisms gained in 6th and 7th grade.
In this course, students will apply their knowledge of expressions both algebraically and geometrically. Students will explore congruence and similarity of figures in the coordinate plane and write algebraic expressions to describe the transformations. Students will use their knowledge of generating equivalent expressions to solve single-variable linear equations. They will analyze the solution set to include one solution, no solutions, and infinitely many solutions. Students will build upon their understanding of proportional relationships to create linear functions in a graph, table of values, equation, and story problem. They will then

examine the similarities and differences between linear and non-linear models, exploring the commonalities and differences among rational and irrational numbers. Students will approximate the location of simple square and cube root values on a number line. Students will expand upon their understanding of volume of prisms to know and apply the formulas for volume of cylinders, cones, and spheres. Students will apply their knowledge of linear relationships to analyze and make conjectures about two-way data displays, tying together the components of this course. The 8th grade standards have been divided into six critical areas, or units, as follows.

Algebra 1 (meets daily): The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grade. Because it is building on the middle grades standards, this is a more ambitious version of Algebra I than has generally been offered. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. **This is a high school credited course.**

Geometry (meets every other day): The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. The critical areas organized into six units are as follows: Congruence, Proof, and Constructions; Similarity, Proof and Trigonometry; Connecting Algebra and Geometry through Coordinates; Circles with and without Coordinates; Extending to Three Dimensions; Applications or Probability. **This is a high school credited course.**

Physical Education 8: This is a semester long course. Physical activities are similar to seventh grade, but motor skills are further refined, and lead-up activities are offered as it fits the eighth-grade student. The students will be introduced to the basic skills, strategies and formations needed to play a variety of team sports. Skills will be developed through drill and game situations. Rules, terminology, and safety precautions will be presented. Cooperation and the elements of effective teamwork will be stressed in all situations. ***

Advanced PE 8/Team Sports: This semester long course will focus on a more in depth understanding of rules and strategies for team sports. Prior to entering this class students should have demonstrated superior skills in PE 6 and PE 7. Units will culminate with competitive tournament play. ***

Physical Fitness with an Emphasis on Individual and Dual Sports: This semester long class will provide students the opportunity to explore the benefits of physical activity through individual and dual sports and activities. Units will include but are not limited to weightlifting, climbing, aerobics, dance, yoga, badminton, tennis, pickleball, disc golf, and golf. ***

CONNECT – Advisor/Advisee Mentoring 8: Connect is a 20-minute class, three days a week. We will build authentic connections to others and within ourselves by focusing on social and emotional development. We will learn strategies for how to be a better friend, family member and student. We will learn to practice mindfulness and self-awareness so we can make better choices, no matter what challenges we face. We learn how to be a productive and respectful member of our Webber community, and we play lots of cool games to have fun and enjoy being together!

ELECTIVE COURSES - YEAR-LONG

German 1: Students are introduced to vocabulary and structures. Activities include dialogs, novice readings, listening selections, and written communication. Students experience language through the study of cultures, while making connections and comparisons to their native language and developing communication skills in the target language. The study of a world language prepares students to compete in a global community! **This is a high school credited course.**

Spanish 1: This course is intended for students interested in beginning to learn Spanish. If you are already a Spanish speaker, there will be courses in high school to further your knowledge. Students are introduced to vocabulary and structures. Activities include dialogs, novice readings, listening selections, and written communication. Students experience language through the study of cultures, while making connections and comparisons to their native language and developing communication skills in the target language. The study of a world language prepares students to compete in a global community! **This is a high school credited course.**

Spanish 2: This course is intended for students interested in learning Spanish. If you are already a Spanish speaker, there will be courses in high school to further your knowledge. Students are further introduced to vocabulary and structures. Activities include, conversations, novice readings, listening selections, and written communication. Students experience language through the study of cultures while making connections and comparisons to their native language and developing communication skills in the target language. The study of a world language prepares students to compete in a global community! **Prerequisite:** Successful completion of Spanish 1 and teacher's recommendation. **This is a high school credited course.**

Concert Choir: A non-select mixed choir with no audition required. Choral literature of appropriate difficulty is performed in preparation for advanced musical study in select groups. This is a performing group and attendance at school concerts is required as part of student's grade. ***

Symphonic Band: A refinement of music fundamentals taught at the beginning and intermediate levels is applied. Advanced playing techniques are developed through a wide variety of concert repertoire in rehearsal and performances. Performances include elementary school tour and festivals during the school day. Opportunities for section leaders, student conducting, and other leadership roles are a part of the experience. Participation in Symphonic Band is expected for (but does not obligate students to) high school band. Attendance at performances is required. Pre-requisite: Concert Band or instructor approval after an audition and interview.

Symphonic Orchestra: A continuation of music skills and knowledge taught at the beginning and intermediate levels, this class is designed for the intermediate as well as the advanced string players. Advanced techniques of bowing, finger patterns, and tone production are pursued through the study of music literature ranging from early Baroque through contemporary and popular styles. Students will learn advanced level skills on the violin, viola, cello, bass, or harp. Participation in Symphonic Orchestra is expected for (but does not obligate students to) participation in high school orchestra ensembles. Performances include elementary school tour and possible festivals during the school day. Attendance at performances is required. Pre-requisite: Concert Orchestra or instructor approval after an audition and interview.

Jazz Winds: Open to all 2nd and 3rd year flute, oboe, clarinet, saxophone, bassoon, and bass clarinet players. Low brass is also accepted by director approval. Trap, bass, piano, and guitar players are also accepted by audition. Students must also be enrolled in concert or symphonic band class. A variety of jazz literature is explored, including (but not limited to) rock, funk, ragtime, blues, swing, contemporary, pop, and spirituals. Student must obtain instructor approval for entry into class. This class meets during zero hour. Concerts are required and combined with regularly scheduled band performances and may also include festival and studio sessions during the day.

Jazz Band: Open to 2nd and 3rd year players by audition only. Students must also be enrolled in concert or symphonic band class. Instruments include all saxophones, trumpets, trombones/baritones, tuba, electric guitar and electric bass, trap/percussion, and piano. A variety of jazz literature is explored, including (but not limited to) ragtime, blues, swing, contemporary, pop, Latin jazz, rock, funk, and spirituals. This class meets during zero hour. Concerts are required and combined with regularly scheduled band performances and may also include festival and studio sessions during the day.

Jazz Orchestra: Open to 2nd and 3rd year violin, viola, cello, string bass and harp players by audition only. Trap/percussion players also accepted by audition, and string players may also play piano on some songs as ability allows. Students must also be enrolled in Concert Orchestra or Symphony Orchestra class. A variety of jazz literature is explored, including (but not limited to) ragtime, blues, swing, pop, Latin jazz, rock, and funk. This class meets during zero hour. Concerts are combined with regularly scheduled orchestra performances and may also include festival and studio sessions during the day. Attendance at all concerts is required.

ELECTIVE COURSES - SEMESTER

Art 1: Develops the elements of art and principles of design. A wide variety of art activities are designed to increase the student's knowledge of art media, techniques, terminology, and appreciation of aesthetics and art styles. Critical thinking skills are emphasized as students do drawings, paintings, sculpture, and printmaking. ***

Art 2: Allows students to further develop their creative ideas and interests with more involved projects. A greater emphasis is placed on art aesthetics and critical evaluation. Art elements and principles of design continue to be reinforced as students are introduced to new art concepts, art history, media, and techniques. Prerequisite: passing grade in Art 1. ***

Pottery & Sculpture: Students will be introduced to three-dimensional methods of creating art. Students will pursue individual interests in working with clay, glazes, and other sculptural media. The elements and principles of three-dimensional design will be studied as they apply to functional and non-functional works of art. ***

Crafts 1: This class is directed toward introducing students to three-dimensional methods of creating art. The focus will be on mosaics. Students will explore the process of making mosaics using several techniques, including glass, ceramics, paper, and cloth. Students will design and create individual projects made in various sizes based on assigned themes. ***

Photography 1: Instruction in the art of creating and manipulating digital images. Students will explore aspects of composition in capturing quality photographs based on elements of art and principles of design. A variety of software applications will be used to produce desired artistic effects. Graphic applications as well as career paths will also be studied. ***

Jewelry: Students will observe and interpret metals and non-metals through experimentation. Planning of designs, utilizing the skills of sawing, forging, cold connections, soldering, casting, surface enrichment, and other beginning jewelry techniques may be explored. The history and aesthetics of jewelry will be studied. Wire, metal (nickel, silver, brass, copper, and sterling silver), wood, fibers and stones may be used. Design and craftsmanship are emphasized. ***

Web Design/Computer Animation: Incorporate 21st century skills in a web design environment. Students will work collaboratively to design and create innovative digital works. Units will include: web site design, graphics, animation, data analysis, and marketing. Careers and life-long learning opportunities will be explored.

Exploring Technology & Engineering Concepts: Explores the development of technology and how it is changing our world. Students learn to use "tools of our time", including computers, shop tools and equipment, transportation systems, production equipment, robots, wind tunnels and many other exciting high-tech items. They explore the topics of invention, design, manufacturing, Lego robotics, transportation, communication, and work on a different project related to the topic of study. ***

Robotics Engineering 1: Robotics Engineering 1 is a semester long class designed to introduce the basics of robotics as it teaches science technology engineering and mathematics (STEM). Students will learn how to use information from sensors, applied mathematics, and measurement to program their robot to perform in a series of environments. They will have the opportunity to complete multiple investigations involving guided research, problem solving, working in teams, and documenting what they've learned as they investigate how robots make decisions to navigate their environment. As students become familiar with the programming and the NXT hardware, they may progress at their own pace allowing for differentiation in student abilities and learning styles. Interactive, hands-on learning is the structure of this class. This course is a pre-cursor to the high school robotics program and a part of the K-12 robotics articulation. ***

Woods Crafts: Woods Crafts is a hands-on course designed for students to learn the processes and skills to produce quality wood projects. Students will learn measurement, basic joinery, project layout, materials calculation, hand and power tools, basic lamp wiring, construction and finishing techniques. Projects may include a lamp, table, shelving unit, carving project, basic box, bird houses stool, and a lathe project. Creative use of project design and materials is stressed. An emphasis is put on critical thinking, problem solving and quality of work. Safe and proper use of equipment will be integrated in the course. ***

3D Modeling and Design: This elective allows students to learn how the design process works through engineering and design activities. Drafting, both manual and computer-aided, will be examined. Through the use of the fabrication lab, the learner will design and build projects. We will experiment with aerodynamics while designing balsa wood race cars and calculate the distance and velocity. By learning how to use a variety of drafting and modeling programs, students will produce plastic models using a state-of-the-art three-dimensional printer. ***

Physical Education – Yoga: Yoga and mindfulness techniques are some of the best research-based ways to manage stress and promote balanced health for the whole person. Students will be introduced to fun and engaging yoga postures, which develop strength, balance, flexibility, and overall body awareness. They will also learn how stress affects the body as well as mindful awareness techniques for stress and anxiety management, such as guided imagery, positive self-talk, and progressive muscle relaxation. Safety and self-respect are stressed throughout the class.

Creative Foods: This hands-on course will develop skills in nutrition and wellness as well as food preparation. Areas of study will include food safety and sanitation, kitchen safety, food production, nutrition and wellness, meal planning, and practical application with food labs. This course includes career exploration in the food and hospitality industry. ***

International Foods: This class will study culture, geography, and agricultural influences of food. We will study various countries and plan and prepare foods for the classroom from these cultures. The study of influences of our food choices will include family and culture, religious beliefs, festivals and celebrations, and traditions. ***

Teen Living: Explore and develop skills in foods, nutrition, child development/care giving, personal development, clothing care, consumerism, and service learning. This hands-on course gives students a chance

to practice what they learn by designing projects related to each topic and is relevant to the issue's teens are currently dealing with in their own lives. ***

Interior Design Exploration: The beginning interior designer learn to use space properly, make space one's own, design/discover inexpensive room enhancers, design/discover comfortable room set ups, and create/assemble/construct simple home decorations and/or improvement projects.

Sew Creative: This elective allows students to learn how the design process works through sewing/textile construction and design activities. They will experiment with fiber types and understand their uses. They will apply knowledge of the elements of art and principles of design and apply these attributes to their projects. Students will pursue individual interests in fabric construction using different textiles, fibers and technology. This course includes career exploration in the design and visual arts industry. ***

Outdoor Living: For the student who enjoys and appreciates outdoor activities. Topics include Safe Outdoor Living/Survival Skills, Environmental Ethics (Rules), Preparations for Outdoor Living, Recreational/Leisure Choices, and Career Resources. Class activities will encourage the student to develop new interests for leisure time. ***

Hunter's Education Certification and Outdoor Living: For students who enjoy and appreciate outdoor activities. Topics include Safe Outdoor Living/Survival Skills, Environmental Ethics (Rules), Preparations for Outdoor Living, Recreational/Leisure Choices, and Career Resources. Class activities will encourage the student to develop new interests for leisure time. This course includes Hunter's Education Certification. There is a fee for this class. ***

Introduction to Drama: Introduces students to basic performance skills in creative dramatics. Basic skills include improvisation, interpersonal group interaction, character analysis and interpretation, expressive script reading, memorization, and preparation. Development of these skills will culminate in a one-act performance. Attendance at one dress rehearsal and performance after school is required.

Musical Theater Production: An interdisciplinary class designed to develop skills in various aspects of producing a major musical. It is open to students with a variety of interests including singing, acting, and dancing. ***Students must be willing to sing solo material***. Two dress rehearsals and one performance are required as part of the student's grade.

Teacher Aide - All Positions: Students will assist teachers or office or media staff with a variety of tasks. Students need to be knowledgeable in the teacher's subject area so that they may truly be of assistance. ***Required application is available on the Webber Middle School website or in the counseling office.***

***There is a fee for these classes.

EXTENDED LEARNING OPPORTUNITIES – SEMESTER

Anthropology: The chief objective of Anthropology is to increase the students' awareness of and appreciation for the rich diversity of human behavior and beliefs. The course examines the physical and cultural origins and development of the human species taking us back in time some three million years. Students will investigate the techniques and evidence used to formulate theories about prehistoric and modern people who possess lifestyles dramatically different from our own. Anthropology is taught from an evolutionary perspective. With a special emphasis on Archaeology, students will participate in a Field School dig on campus.

Book Club: For those who love books, love to read books, and want to talk about books. The group will vote on books to read, prepare reflective writing, and discuss the books. Students will be expected to read daily, either the book club selection or their own personal book choice.

Brain Builders: This course provides students with complete understanding of the intricacies, aesthetics, and cultural elements of the world of "gaming" through critical play, analysis, and discussions. A variety of game formats will be considered in the course, including board games and card games. The main focus will be on historical and economic games which reinforce social studies and mathematic standards. ***

Creative Writing: Designed to help students improve their ability to express themselves through imaginative use of the language. Students focus on improving their sense of observation in narrative and descriptive writing by creating their own original short stories and poems.

Current Events: Do you love knowing what is happening in the city, country, and world? Do you want to feel like you actually understand how and why things are happening the way they are? If so, then this ELO is for you! We will dig deeper than Twitter or Instagram, looking at a wide variety of news sources to get a handle on current events. We also explore ways to be smart about how we get our news so you can feel confident and informed.

Environmental Education - The Green Class: This course is centered on the role we play in shaping, participating in, and understanding local and global environmental issues. We will take time each day to think about ourselves and how we can make Webber a greener, more environmentally friendly place. Additionally, we will broaden our scope of understanding to think critically about ways personal choices affect our immediate community and beyond, and how we can take positive steps each day. Students will explore the science behind our changing climate, Colorado ecosystems, and local environmental issues.

Geographic Information Systems (GIS): This is an introduction to GIS, a technology-based class. In it, we will be utilizing technology for mapping, geo caching, and other geography-based applications.

History of Rock and Roll: An introduction to the evolution of rock styles, contributions of important performers, and musical techniques involved in the creation and performance of rock music. Students will be introduced to the history of rock and roll music through current music influences, as it evolved in the United States and spread throughout the world.

Intro to Coding: Learn to create computer programs, develop problem-solving skills, and work through fun challenges! Make games and creative projects to share.

Advanced Coding: Build on your coding skills to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun.

Integrated PE: This course is designed to allow eighth grade students to become teaching assistants in adapted physical education. Eighth graders will be assisting students with physical and/or mental disabilities to participate in modified physical education activities. These students will be matched up either one to one or in small groups depending on student needs. ***Required application is available on the Webber Middle School website or in the counseling office.***

Jr. Forensics (Speech & Debate): A first semester only class designed to prepare students to compete in Webber's Junior Forensics Team. Students will be introduced to all areas of Junior Forensics competition including debate, interpretive drama, humor, poetry, and impromptu events. The National Honor Society sponsors Junior Forensics, and students who choose to compete will travel to monthly tournaments and will have the opportunity to gain points which can be transferred with them as they continue at the high school level.

Learn to Knit for Others: Designed to teach students how to knit and do a service-learning project all in one! Students will learn the basics of knitting: casting on, knit stitch, purl stitch, and casting off. After becoming proficient with these skills, students will make knitted items to donate to local families in need. If you have previous knitting experience and want to move beyond the basics, you will have the opportunity to learn new knitting techniques in this class. ***

Military History and Technology: This class will encompass the following: military customs and courtesies and tactics, world and US military history timelines, National Guard versus active duty, military leaders and other significant individuals, significant military campaigns and events, military careers and opportunities, and military technology (timelines and reasons why technology is used). If possible, a field trip to CSU for the ROTC program or to Warren AFB in Cheyenne may be appropriate. Projects may include research of periods, battles, leaders, and significant events, followed by presentations or role playing. We will make connections to cultures, impacts on families, communities, and individuals. We will also explore why and when military is used, what is right or wrong about those choices.

Panther PRIDE – Self Defense: This class is designed to build self-confidence and awareness, respect, and character all through martial arts and self-defense. Expect to work and train your mind and body in a disciplined environment with an instructor who has 20 years of experience and a 2nd-degree black-belt.

Panthers Produce: In support of student success, Panthers Produce will provide class work time; planner checks; grade checks; assistance with work; reading for assignments; and retaking tests or redoing assignments. We will have limited space in Panthers Produce. If you are selected into this class, you are expected to work on homework in a quiet and respectful manner. Teachers have the discretion to remove students from Panthers Produce who are not using their time effectively. ***Required application is available on the Webber Middle School website or in the counseling office.***

Science Olympiad: This is a science elective class. The course is modeled after the nationally recognized Science Olympiad competition. This course will allow students to explore all areas of science. Sample topics may include astronomy, crime solving, trajectory, egg drop, and orienteering.

Smart Fit Girls: This class teaches adolescent girls how to love their bodies by embracing their own strength. During the program, girls participate in exciting activities aimed at improving their self-esteem and are introduced to resistance training exercises in a fun, group environment. Girls who participate in this class will need exercise clothes, comfortable athletic shoes, and of course, a good attitude!

Space Science & Astronomy: Come explore the stars in this exciting project-based ELO! We will start off learning how stars form, how they live, and how they come to a (sometimes) catastrophic end. We will learn about the brilliant people who have contributed to this field of science throughout history and will hear from scientists who are actively doing this work today. We will have opportunities to observe the skies using telescopes and binoculars and will learn about contributing data to citizen science databases. We finish the semester with a brief exploration of aerospace technology and a project of your choosing.

Sports Reading: Uses the medium of sports to engage students in reading and writing activities. The students will concentrate on improving their reading and writing skills using a variety of materials including newspapers and magazines, short stories, novels, and biographies. Students also learn about the history of sports, careers in sports, and the impact of sports on society. Some physical activity may be incorporated into this class.

Underwater Robotics: The Underwater Robotics Program (SeaPerch) provides students with the opportunity to learn about robotics, engineering, science, and mathematics (STEM) while building an underwater Remotely Operated Vehicle (ROV). During the process of building an ROV, students follow an established curriculum to completely assemble the ROV, test it, and then participate in launching their vehicles. Students are encouraged to compete in a culminating event, the SeaPerch Challenge and/or maneuver an obstacle course at a local pool.

Velocity – Select Choir: Participation requires high-level performance skills. The choir performs a variety of significant choral literature representing several stylistic periods. This advanced group performs concerts in the school and community. Students must be concurrently enrolled in Concert Choir or have completed Concert Choir and concurrently enrolled in Musical Theater Production. **Placement is based on an audition**, and attendance at school concerts is required as part of student's grade.

WEB TV: Students will learn the basics of video production. Our task will be to learn the art and science about how to make engaging, attention-grabbing videos. Through video announcements, we will work with all the tools of the trade including cameras, microphones, lighting, and green screens. Student filmmakers will write, direct, and star in their own productions. We will make professional-quality videos designed to showcase the best of Webber to our students, parents, and the Fort Collins community. ***

World Cultures: Explores the five themes of geography (location, place, human environment interaction, movement, and region). Students will be involved in an in-depth study of the background of major historic and artistic sites, basic economics, geography, language, foods, music, traditions, religions, and current events of countries students want to visit or to be visited on a spring and/or summer trip.

Yearbook: This yearlong course covers all phases of yearbook production. Students learn to design layouts, write copy, organize materials, select photographs, and function as a cooperative member of a publications staff. ***Required application is available on the Webber Middle School website or in the counseling office.***