## Curriculum Guide



## 2019-2020

## Curriculum Guide

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## Curriculum Guide

## District Vision

To be the top producer of successful students in the nation

## District Mission

To lead our students to success with the support and involvement of families and the community

Welcome to Timber Springs Middle School, where We Go the Extra Mile! A caring and dedicated staff is eager to make your time at Timber Springs Middle School an exciting and challenging learning experience. This curriculum guide will be a vital tool in planning a course of study for the school year. This guide includes general school information, the registration process, as well as course descriptions for all core and elective courses offered. Please note the master schedule and number of course offerings are subject to change based on availability and class size.

## Administration

Dr. Eric Cantrell<br>Principal

| Bibiana Gavillan | Steven Soubasis |
| :---: | :---: |
| Assistant Principal of Instruction | Assistant Principal |

## Address

Timber Springs Middle School
16001 Timber Park Lane, Orlando, Fl. 32828

Telephone: 321-413-2201
Fax: 407-250-6233

## Office Hours

7:30am-4:30pm

## School Hours

Monday, Tuesday, Thursday, and Friday: 9:30 am- 3:57 pm
Wednesday: 9:30am- 2:54 pm

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## GUIDANCE

## Guidance Counselors

| Grade | Name | E-mail | Extension |
| :--- | :--- | :--- | :--- |
| 6th | Elizabeth Stella | elizabeth.stella@ocps.net | $538-2262$ |
| $7^{\text {th }}$ | Laura Grullon | laura.grullon@ocps.net | $538-2306$ |
| $8^{\text {th }}$ | Sharon Henry | sharon.henry@ocps.net |  |
|  |  |  |  |

## Guidance Services

| Position | Name | E-mail | Extension |
| :--- | :--- | :--- | :--- |
| Registrar | Rossana Calvani | $\underline{\text { rossanna.calvani@ocps.net }}$ | $538-2232$ |
| Exceptional <br> Education | Linda Craft | $\underline{\text { linda.craft@ocps.net }}$ | $538-2237$ |
| ELL/ESOL | Guidance | elizabeth.stella@ocps.net <br> laura.grullon@ocps.net <br> sharon.henry@ocps.net | $538-2262$ <br> $538-2306$ |

## Registration

You can register here at Timber Springs Middle School or online at www.ocps.net (search pupil assignment). If online, please print out the completed registration and bring with you upon registering your student to Timber Springs Middle School. For additional assistance, please contact:

## Student Enrollment

6501 Magic Way, Building 100B, Orlando, FL 32809
Monday through Friday: 7:30 a.m.-4:30 PM (407) 317-3233

## In order to register you will need the following information:

A. Verification of age (with one of the following):

1. Transcript of child's birth (Birth Certificate)
2. Insurance policy
3. Passport
4. School record
5. Certificate of baptism, accompanied by parent's affidavit
6. Bona fide Bible record, accompanied by parent's affidavit
7. Affidavit of age sworn to by parent, accompanied by a medical practitioner's statement

## B. Proof of up- to- date immunizations on a Florida 680 Form.

This can be obtained at the Orange County Health Department or your private physician. Florida State Statues require ALL students entering seventh grade to have a Tetanus, Diptheria, Pertussis (Tdap) Proof of these immunizations on a new FL 680 must be provided to the school before they can enroll in the seventh grade.

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## C. Proof of physical examination by a U.S. doctor within the last year.

If documentation cannot be provided a physical examination must be obtained within 30 days of enrollment.

## D. Academic History

1. Last report card (to include every final report card from middle school and standardized test scores if applicable)
2. Transcript
3. Withdrawal Form

## E. Special education information - Current IEP/504

## F. Verification of your legal residence in Orange County with current address and one of the following:

1. Current Homestead Exemption Card, Current Property Tax Statement / Signed Settlement Statement
2. Lease/Rental Agreement
3. Verification of Address: Documents required-information available on OCPS website or Pupil Assignment - 407-317-3233

## G. Guardianships

If you are not the parent or custodial parent of a student, state law requires that one of the following documents be provided for enrollment:

1. Court Custody Documentation (this includes divorce decrees)
2. Department of Children and Families Placement Letter
3. OCPS Educational Guardianship (given only when the parents or custodial parent live outside of Orange County and adjacent counties)
Available at: Student Enrollment
6501 Magic Way, Bldg 100B, Orlando, Fl. 32809 (407) 317-3233
Monday through Friday: 7:30am - 4:30pm

## Immunization and Physical Requirements

Physical Exam within one year of school entry - Valid Florida DH 680 Immunization Form (blue paper not required)

All Grades Require<br>DTaP Series Polio Series Hepatitis B Series Measles, Mumps, Rubella (MMR)<br>6th, 7th, 8th and 9th grades<br>1 dose Varicella (Chickenpox)<br>K -12 grades<br>2 doses Measles, Mumps, Rubella (MMR)<br>7th grade<br>Tetanus, Diptheria, Pertussis (Tdap)<br>8-12 grades

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Tetanus, Diptheria (TD) Booster (Tdap is acceptable)
For further information, contact the Orange County Health Department Immunization Program at 407-836-2502.

## Parent/ Teacher Communication

If you are experiencing a problem in a course, the best solution is direct communication between the parent and teacher. Please call or email the teacher with your concerns. Email addresses are listed on the Timber Springs Middle School website. You will receive a timely response from the teacher. Use Family Access Portal https://Launchpad.ocps.net to monitor your child's progress throughout the year. We strongly encourage contacting the teacher or counselor whenever there is a question or concern.

## Attendance

It is the student's responsibility to complete class and homework assignments due to an absence. Students have the days absent plus one day to complete assignments. Students should familiarize themselves with each of their teacher's procedures and expectations. Please consult the course syllabus, contact teachers, or log on to the Parent Portal for homework information. Upon their return to school, students must always submit a letter of excuse written and signed by their parent or guardian to the grade level office.

## Promotion Policy

In order to be promoted, students must successfully:

1. Pass all four full year academic courses (Language Arts, Mathematics, Science, and Social Studies)
2. Demonstrate performance in reading equivalent to an FSA level 3 or higher

## Sample Daily Schedule

| Core Academic Classes Example <br> Daily Schedule <br> (Order varies by student) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st period | 2nd Period | 3rd Period | 4th Period | 5th period | 6th Period | 7th Period |
| Math | Language <br> Arts | Fitness | Social <br> Studies | Elective <br> (ex. Art) | Science | Elective <br> (ex. Band) |

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## Elective Selection

Students are afforded the opportunity of signing up for elective courses. Electives are possible offerings and are NOT guaranteed. Offerings will be based on funding, required certification, and the discretion of the school. Please note requests are not guaranteed and are based upon availability and limited to class size. Students who score a level 1 or 2 on FSA Math or Reading will be assigned an intensive course in place of one or more electives.

## Schedule Changes

Students are given registration information each spring. This information aids students in course selection. Students are allowed to make changes in their choices until the end of the school year. This allows the students ample time to plan the courses that meet their individual needs. Any change in a student's schedule for the new school year will be based on course availability.

Class Size Amendment and budget mandates may cause the following: class size balancing, change of course offerings, and inability to honor Physical Education waivers. Schedule changes will ONLY be made to correct misplacement, computer errors, and modifications due to summer school or Florida Virtual School/Orange County Virtual Courses. However, accommodations are NOT made to allow for parental preferences for teachers or friends. Schedule related problems should be discussed with the grade level guidance counselor. If a schedule change occurs, it may alter the entire schedule, and/or teachers. Additionally, once a schedule is changed, it cannot be reverted back to the original schedule.

## Placement in Advanced \& High School Courses

Advanced and high school courses offered at AMS have specific prerequisites required. Students who are able to demonstrate the prerequisites have the greatest chance of being successful in higher level courses. All courses require effort, maturity, and discipline as well as extensive outside reading and essay writing.

## Academic Rigor

Academic rigor is more than simply assigning to students a greater quantity of work. Through the application, analysis, evaluation, and creation of complex ideas that are often abstract and multi-faceted, students are challenged to think and collaborate critically on the content they are learning.

## High School Courses Offered

## Core Courses

- Physical Science Honors
- Earth Space Honors


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- Algebra I Honors
- Geometry Honors


## Elective Courses

- Spanish I
- Spanish II
- Digital Information Technology
- Introduction to Engineering Design
*Information regarding course requirements is subject to change by the state of Florida.


## Core Course Progressions

Core courses offered differ by grade level. Refer to the chart below to better understand your child's progression through middle school. Advanced and *high school credit courses have requirements for placement.

| $6^{\text {th }}$ Grade | $7^{\text {th }}$ Grade | $8^{\text {th }}$ Grade |
| :---: | :---: | :---: |
| Language Arts 1 Advanced Language Arts 1 | Language Arts 2 Advanced Language Arts 2 | Language Arts 3 <br> Advanced Language Arts 3 |
| Comprehensive Science 1 Advanced Comprehensive Science1 <br> Advanced Life Science | Comprehensive Science II Advanced Comprehensive Science 2 <br> *Earth/Space Science Honors | Comprehensive Science 3 Advanced Comprehensive Science 3 <br> *Physical Science Honors |
| Math 1 <br> Advanced Math 1 <br> Advanced Math 2 | Math 2 <br> Advanced Math 2 <br> *Algebra 1 Honors | Pre-Algebra <br> * Algebra 1 Honors <br> *Geometry (passed Algebra 1 EOC) |
| World History Advanced World History | Civics <br> Advanced Civics | American History Advanced American History \& CP |

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## CORE COURSE DESCRIPTIONS

## LANGUAGE ARTS

The purpose of this course is to develop the ability to use, interpret, and appreciate spoken and written English. The content should include, but not be limited to, the study of literature; practice in writing for a variety of purposes and audiences; activities in speaking, listening, and critical thinking, as well as in the use of reference materials. Developmental reading strategies should also be incorporated. Information on related career possibilities should be provided.

## $6^{\text {th }}$ Grade: Language Arts

The purpose of this course is to provide grade 6 students, using texts of appropriate complexity, integrated language arts study for college and career preparation and readiness. The content includes active reading of varied texts, analysis of literature and informational texts, writing for varied purposes, effective listening, speaking, and viewing strategies with emphasis on the use of evidence to support or refute a claim in multimedia presentations, class discussions, and extended text discussions.

## $6^{\text {th }}$ Grade: Advanced Language Arts

## Prerequisites:

- Level 3 on FSA Reading
- Teacher recommendation

The purpose of this course is to provide students, using texts of high complexity, advanced integrated language arts study for college and career preparedness. The content includes active reading of varied texts, analysis of literature and informational texts, writing for varied purposes, effective listening, speaking, and viewing strategies with emphasis on the use of evidence to support or refute a claim in multimedia presentations, class discussions, and extended text discussions.

## $7^{\text {th }}$ Grade: Language Arts

The purpose of this course is to help prepare all students with the knowledge and skills needed to succeed in college and careers. They will be able use and interpret spoken and written English, which includes literature (classic and contemporary), non-fiction selections, and real-world items. Students will be able to analyze various mediums and compare them to each other, which may include poetry, art in various forms, novels, short stories, articles, editorials, video, and audio. Students will also begin working more independently.

## $7^{\text {th }}$ Grade: Advanced Language Arts

## Prerequisites:

- Level 3 on FSA Reading
- $6^{\text {th }}$ grade teacher recommendation

The purpose of this course is to help prepare all students with the knowledge and skills needed to succeed in college and careers. They will be able use and interpret spoken and written English, which includes literature (classic and

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contemporary), non-fiction selections, and real-world items. Students will be able to analyze various mediums and compare them to each other, which may include poetry, art in various forms, novels, short stories, articles, editorials, video, and audio. Students will be expected to be able to use critical thinking skills to analyze literature and nonfiction. Students will be able to work both independently and in a group setting, with limited teacher assistance, and be able to persevere when they are working on a topic.

## $8^{\text {th }}$ Grade: Language Arts

The purpose of this course is to develop the ability to use academic skills in English language arts through enriched experiences in literature, writing, speaking, listening, and critical thinking. The content should include, but not be limited to: the study of traditional and application of communications skills to daily life and work should be provided. Students explore universal themes through various types of literature. This course will cover the $8^{\text {th }}$ grade Common Core Standards while preparing the students to be successful in high school.

## $8^{\text {th }}$ Grade: Advanced Language Arts

## Prerequisites:

- Level 3 on FSA Reading
- 7th grade teacher recommendation

The purpose of this course is to enhance the ability to use academic skills in English language arts through enriched experiences in literature, writing, speaking, listening, and critical thinking. The content should include, but not be limited to: the study of traditional and application of communications skills to daily life and work should be provided. Students explore universal themes through various types of literature. This course will cover the $8^{\text {th }}$ grade Common Core Standards while preparing the students for the rigors of high school honors and advanced placement courses.

## 6, 7, 8: Language Arts through ESOL

The purpose of this course is to provide instruction to speakers of other languages who are classified as less than independent in English. The main goal of the program is the acquisition of English communication skills by the students. The content should include, but not limited to, the study of fiction, non-fiction, and poetry in world literature. Practice should also be provided in using idiomatic expressions appropriately, in discussing reading selections, and in writing paragraphs. Completing forms and business letters, as well as other real-life writing tasks, should be stressed. Instruction in mechanics, usage, and other conventions of standard written English should be provided.

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## READING

Florida middle school students who score at Level 1 or 2 on FSA Reading are required to complete an intensive reading course. Students without an FSA score may also be placed in an intensive reading course if their reading proficiency is significantly below grade level.

## 6, 7, 8: Reading

This course is designed to provide intensive reading instruction and support for students reading below expected level. Instruction enables students to accelerate and strengthen reading and writing skills so that they are able to successfully read grade level text independently and write responses to reading that cite text dependent evidence. Instruction stresses reading comprehension, fluency, and vocabulary study through the use of a variety of literary and informational texts at varying levels of complexity. The curriculum materials are differentiated according to reading levels and student need, many times on an individual basis. Instructional scaffolding is provided as necessary as students engage in increasingly complex texts and is removed as abilities of students improve. When determined necessary by a student's reading proficiency level, students may be placed in a double-block class (two periods). Students repeat this course until they are able to score a level 3 or higher on the reading FSA.

## 6, 7, 8: ESOL Reading

This course is designed to provide reading instruction and support for students who are native speakers of languages other than English. Instruction enables students to accelerate and strengthen reading and writing skills so that they are able to successfully read grade level text independently and write responses to reading that cite text dependent evidence. This course also provides support with language development as well as intensive practice in vocabulary, fluency, comprehension, and word attack skills. The curriculum materials are differentiated according to reading levels and student need, many times on an individual basis. Students repeat this course, or the Intensive Reading course, until they are able to score a level 3 or higher on the reading FSA.

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## SOCIAL STUDIES

It is the goal of the Social Studies department that all students will acquire the habits of mind needed to become reflective and responsible citizens of our nation and world.
The courses taught in middle school are designed to encourage active learning among our students so that the students will:

- Understand the significance of the past and its influence on the present.
- Be mindful of both change and continuity in our lives.
- Appreciate the challenge and opportunities created by an increasingly interdependent global community.
- Recognize the personal character traits of people who have made a difference in history.
- Read various types of information effectively while learning to ask appropriate questions to distinguish fact from conjecture.
- Research information using a variety of sources and communicate effectively.


## $6^{\text {th }}$ Grade: World History

This course covers the development of human society beginning in the Stone Age and ending with the fall of the Roman Empire. The course content explores geography, culture, and history. Students will begin with answering the questions, "What is history?" and "What is a civilization?" Student will also learn how geography influenced the growth of civilizations to help them organize information about the world. Students will study the cultures, influence, and contributions of the ancient civilizations (Stone Age, Mesopotamia, Egypt, Israelites, India, China, Greece, and Rome) and their impact on our modern world. This course supports Language Arts with the purpose of helping students to better comprehend reading from a non-fiction text through the emphasis of many reading and writing skills such as text features, cause and effect, graphic organizers, vocabulary, chronological order and long/short written responses. Students will make connections to find common traits and differences within each of the studied civilizations. Additionally, students will begin to work on higher order thinking skills through analyzing textbook or other reading sources and making inferences.

## $6^{\text {th }}$ Grade: Advanced World History

## Prerequisites:

- Level 3 on FSA Reading
- Teacher recommendation

This course covers the development human societies beginning in the Stone Age through the fall of the Roman Empire. The course content explores geography, culture, and history. Students will begin with answering the questions, "What is history?" and "What is a civilization?" Student will also learn how geography influenced the growth of civilizations to help them organize information about the world. Students will study the cultures, influence, and contributions of the ancient civilizations (Stone Age, Mesopotamia, Egypt, Israelites, India, China, Greece, and Rome) and their impact on our modern world. This course supports Language Arts with the purpose of helping students to better comprehend reading from a non-fiction text through the emphasis of many reading and writing skills such as text features, cause and effect, graphic organizers, vocabulary, chronological order and long/short written responses. Students will make connections to find common traits and differences within each of the studied civilizations. Studies will also include activities where students develop an investigative mind to seek

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out why history progressed as it did through written research, analyzing text or readings, drawing inferences, document based questions, connecting the past to the present and debates.

## $7^{\text {th }}$ Grade: Civics

The primary content for the course pertains to the principles, functions, and organization of government; the origins of the American political system; the roles, rights, responsibilities of United States citizens; and methods of active participation in our political system. The course is embedded with strong geographic and economic components to support civic education instruction.

## $7^{\text {th }}$ Grade: Advanced Civics

## Prerequisites:

- Level 3 on FSA Reading
- $6^{\text {th }}$ grade teacher recommendation

The primary content for the course pertains to the principles, functions, and organization of government; the origins of the American political system; the roles, rights, responsibilities of United States citizens; and methods of active participation in our political system. The course is embedded with strong geographic and economic components to support civic education instruction. Timber Springs's Advanced Civics Course offers scaffolded learning opportunities for students to develop the critical skills of analysis, synthesis, and evaluation in a more rigorous and reflective academic setting. Students are empowered to perform at higher levels as they engage in activities such as: analyzing historical documents, becoming proficient in note-taking, emphasizing free-response and document-based writing, more collaborative learning, contrasting opposing viewpoints, solving problems, etc.

## $8^{\text {th }}$ Grade: U.S. History

United States History classes cover the time period of 1607 to 1880, starting with the European exploration and settlement of North America and concluding with the Reconstruction of the U.S. after the Civil War. Students will be exposed to the historical, geographic, political, economic, and sociological events which influenced the development of the United States and the resulting impact on world history. Students will have an opportunity to see the relationship between cause and effect in historical events and explore the fundamental ideas and events which occurred after Reconstruction.

## $8^{\text {th }}$ Grade: Advanced History

## Prerequisites:

- Level 3 on FSA Reading
- $7^{\text {th }}$ grade teacher recommendation

Advanced History consists of learning opportunities for students to develop the critical thinking skills in a more rigorous and reflective academic setting. Students are empowered to perform at higher levels as they engage in the following: analyzing historical documents and supplementary readings, document based writing, participating in Socratic seminars/discussions which include contrasting opposing viewpoints and problem solving.

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## SCIENCE

The science department at Timber Springs Middle School follows the same goals of the Orange County to produce successful students who are science literate citizens and proficient problem solvers. The curriculum follows an inquiry- based approach. The Practice of Science (variables, theories, laws, models, conducting investigations, difference between pseudoscience and science, etc.) is embedded throughout the year in all the three grade levels. As students learn the science concepts and principles, they acquire the science process skills that are applicable to any discipline and are much needed in the workforce. Use of interactive science notebook is encouraged in all grade levels. Research shows that student understanding and literacy skills improve when students do hands-on minds-on science and use science notebooks to make sense of their science investigations.

## $6^{\text {th }}$ Grade: Comprehensive Science 1

The purpose of this course is to provide opportunities for students to study concepts of science through exploratory investigations, activities, and applications. Science content includes: earth structures, earth systems and patterns, organization and development of living organisms, diversity and evolution of living organisms, energy transfer and transformations, motion of objects, forces and changes in motion. Scientific processes include: the role of theories, laws, hypotheses, and models; laboratory investigations, experimental procedures, problem solving, and the characteristics of scientific knowledge.

## $6^{\text {th }}$ Grade: Advanced Comprehensive Science 1

## Prerequisite:

- Level 3 on FSA Reading and Math
- Teacher recommendation

The purpose of this course is to provide opportunities for students to study concepts of science through exploratory investigations, activities, and applications. Science content includes: earth structures, earth systems and patterns, organization and development of living organisms, diversity and evolution of living organisms, energy transfer and transformations, motion of objects, forces and changes in motion. Scientific processes include: the role of theories, laws, hypotheses, and models; laboratory investigations, experimental procedures, problem solving, and the characteristics of scientific knowledge. Due to the pace and rigor of this course, students are required to be dedicated and have high levels of responsibility in order to be successful. Completion of an Independent Science Research to include: identify project idea, conduct research, composing a hypothesis, design an experiment, collect data, analyze data, draw a conclusion, create display board, and present project orally.

## 6: Advanced Life Science

## Prerequisite:

- Level 4 0r 5 on FSA Reading and Math
- Teacher Recomendation


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The purpose of this course is to provide opportunities for students to study concepts of biology through exploratory investigations, activities, and applications. Biology content includes: unifying concepts, classification of living things, cell structure and function, use of microscopes, genetics, human body systems, photosynthesis, cellular respiration, ecosystems, adaptations of organisms and fossil records. Scientific processes include: theories and laws, laboratory investigations, experimental procedures, use of measurement, problem solving, laboratory apparatus and safety procedures. Due to the pace and rigor of this course, students are required to be dedicated and have high levels of responsibility in order to be successful.

## $7^{\text {th }}$ Grade: Comprehensive Science 2

The purpose of this course is for laboratory investigations that include the use of scientific inquiry, research, measurement, problem solving, laboratory apparatus and technologies, experimental procedures, and safety procedures are an integral part of this course. Conduct weekly science laboratory investigations (labs), providing students with opportunities to interact directly with natural phenomena or with data collected by others using tools, materials, data collection techniques, and models. All students will develop a growing understanding of the complexity and ambiguity of empirical work, as well as the skills to calibrate and troubleshoot equipment used to make observations. Learners should understand measurement error and have the skills to aggregate, interpret, and present the resulting data.

## $7^{\text {th }}$ Grade: Advanced Comprehensive Science 2

The purpose of this course is for laboratory investigations that include the use of scientific inquiry, research, measurement, problem solving, laboratory apparatus and technologies, experimental procedures, and safety procedures are an integral part of this course. Conduct weekly science laboratory investigations (labs), providing students with opportunities to interact directly with natural phenomena or with data collected by others using tools, materials, data collection techniques, and models. All students will develop a growing understanding of the complexity and ambiguity of empirical work, as well as the skills to calibrate and troubleshoot equipment used to make observations. Learners should understand measurement error and have the skills to aggregate, interpret, and present the resulting data.

## Prerequisites:

- Level 3 on FSA Reading and Math
- $6^{\text {th }}$ Grade science teacher recommendation


## 7th Grade: Earth Space Science Honors (High School Course)

## Prerequisites:

- Level 4 or 5 on FSA Reading and Math
- Concurrently taking Algebra 1(course is heavy in mathematics)
- $6^{\text {th }}$ grade science teacher recommendation


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- Must be willing to participate in science fair and any other science contest required by the teacher.

This is a rigorous course focusing on high-school level science standards and will require students to be highly motivated, organized and capable of independent learning. Course topics include astronomy, plate tectonics, minerals, rocks and landforms, surface processes, oceans, weather and climate. This course will also include scientific investigations, which incorporate the use of measurement, laboratory apparatus, problem solving and experimental procedures (designing and performing valid experimental procedures, using mathematics and information for computational thinking to analyze data). This course provides extensive technical reading and writing opportunities in the form of multiple independent science research projects. This honors course is a high school course. Comprehensive semester and End of Course exams will factor into the course grade. Upon successful completion of this class, students will be awarded high school credit in Earth/Space Science.

## $8^{\text {th }}$ Grade: Comprehensive Science 3

The purpose of this course is to provide opportunities for students to study concepts of science through exploratory investigations, activities, and applications. Science content includes: technology in space, relationships in the universe, properties of stars, properties of objects in the solar system, impacts of objects in space on each other, states of matter, properties of matter, atoms and the periodic table, elements, compounds and mixtures, changes of matter and processes of living systems. Scientific processes include: the role of theories, laws, hypotheses, and models; scientific investigations, experimental procedures, problem solving, and the characteristics of scientific knowledge.

## 8th Grade: Advanced Comprehensive Science 3

## Pre-requisites:

- Level 3 on FSA Reading and Math
- $\quad 7^{\text {th }}$ grade science teacher recommendation

The purpose of this course is to provide opportunities for students to study concepts of science through exploratory investigations, activities, and applications. Science content includes: technology in space, relationships in the universe, properties of stars, properties of objects in the solar system, impacts of objects in space on each other, states of matter, properties of matter, atoms and the periodic table, elements, compounds and mixtures, changes of matter and processes of living systems. Scientific processes include: the role of theories, laws, hypotheses, and models; scientific investigations, experimental procedures, problem solving, and the characteristics of scientific knowledge. Due to the pace and rigor of this course, students are required to be dedicated and have high levels of responsibility in order to be successful.

## 8th Grade: Physical Science Honors (High School Course)

## Prerequisites:

- Level 4 or 5 on FSA Reading and Math
- $\quad 7^{\text {th }}$ grade science teacher recommendation

This is a project-based inquiry approach course. The content of this course should include but not limited to, forces and motion, electricity, energy, and matter. The Practice of science is embedded throughout the curriculum. This

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course awakens curiosity, independent thinking and learning in students as it uses a challenge- driven instructional strategy. Every chapter starts with a challenge- problem students need to solve -related to real life situation. Students will use the Engineering Design Cycle to solve the problem. As students enjoy learning the content necessary to solve the challenge, they will be learning a plethora of physics and chemistry principles and applying many mathematical skills. Students will learn these principles through laboratory investigations to be able to respond to the given challenge. Students will become proficient in using sophisticated lab instruments and technology to collect data. Written and oral communications are required of all students. Students work in teams of three or four to present well as a mini presentation using different types of multimedia. Midterm and final exam scores will factor into the course grade. Upon successful completion of this class, students will be awarded high school credit in Physical Science.

## MATHEMATICS

The Mathematics Curriculum of Orange County Public Schools provides a comprehensive and coherent set of goals for mathematics for all students. It is based upon the Florida Sunshine State Standards/Florida Mathematics Content Standards and the National Council of Teachers of Mathematics Principles and Standards. It is what we expect each student to know and be able to do. It is our belief that all children can learn mathematics, and they deserve the opportunity to do so. The central idea of all mathematics is to discover how knowing some things well, combined with reasoning, enables students to extrapolate knowledge of new concepts-without having to commit the information to memory as a separate fact. It is the reasoned, logical connections that make mathematics manageable. As a result, implementation of Sunshine State Standards places a greater emphasis on problem solving, reasoning, representation, connections, and communication. Topics should be represented in multiple ways including concrete/pictorial, verbal/written, numeric/data based, graphical, and symbolic. Concepts should be introduced and used in the context of real world phenomena.

## Intensive Mathematics 6-8

This course is a requirement for students who scored below Level 3 on the Math FSA the previous school year. This course is designed to provide intensive math instruction and additional support for struggling learners. This course will take the place of one elective slot on the student's daily schedule. Students will have an Intensive Math course as a supplement to their standard required Math class until he/she is able to score a Level $\mathbf{3}$ or higher on the math FSA.

The goal of Intensive Math is to fill the gaps in a student's mathematical knowledge structure. Students in $6^{\text {th }}$ grade will become involved with numbers and operations, identifying place value, comparing, ordering, and estimating decimals, fraction, and percents. Students will be adding, subtracting, multiplying and dividing decimals, fractions, and percents. They will learn divisibility rules, equivalent forms of numbers, order of operations, ratios and percents, integers, and location on a number line. Students will understand and justify the rules for geometry and measurement, perimeter, area and circumference of circles. Students in $7^{\text {th }}$ grade should be able to do all the previous, as well as proportions, graphs, and functions. In addition, students in $8^{\text {th }}$ grade will analyze and solve linear functions and systems of linear functions. The geometry component will expand to include three-dimensional figures and angle measures. Students will also demonstrate their knowledge of data analysis and measures of central tendency, as well as solving multi-step equalities and inequalities.

## Grade 6: Math 1

## Curriculum Guide

Math 1 focuses on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

## Grade 6: Advanced Math 1 Prerequisites:

- Level 3 on FSA Math
- Teacher recommendation

Advanced Math 1 focuses on six critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; (4) developing understanding of statistical thinking; (5) developing understanding of and applying proportional relationships; and (6) developing understanding of operations with rational numbers and working with expressions and linear equations.

## Grade 6: Advanced Math 2

## Prerequisites:

- Level 5 on FSA Math
- Teacher recommendation

Instructional time focuses on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

## Grade 7: Math 2

Major milestones for Mathematics Course 2 will include but are not limited to: Algebraic Reasoning, Integers and Rational Numbers, Proportional Relationships, Graphs and Functions, Percents, Collecting, Displaying and Analyzing Data, Measurement and Geometry, Probability, Multi-step Equations and Inequalities. We will build a strong foundation for learning with the aid of hands-on activities and exciting projects throughout the year. The goal is to appeal to the varied learning styles and offer opportunities for practicing skills, applying new concepts, and developing an appreciation for math. Students will also discover how math relates to real-life experiences.

## Grade 7: Advanced Math 2

## Prerequisites:

- Level 3 on FSA Math
- $6^{\text {th }}$ Grade teacher recommendation


## Curriculum Guide

In Grade 7, instructional time focuses on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

## Grade 8: Pre-Algebra

In Grade 8, 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 linear 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.

## Algebra I Honors (High School Course)

Prerequisites:

## $8^{\text {th }}$ Grade Students:

- Level 3 on FSA Math
- Teacher recommendation
$7^{\text {th }}$ Grade Students:
- Successful completion of Advanced Math 2 in $6^{\text {th }}$ Grade
- Level 5 on FSA Math
- Teacher recommendation

This course represents an advanced study of various algebraic concepts and applications. It is designed to prepare students to take an AP mathematics course in high school. All students will learn how to solve single and multivariable equations involving equalities, inequalities and graphing on a Cartesian plane and number line. Students will learn how to solve functions, how to combine like terms of monomials and polynomials following the Hierarchy of math and distributive property of equations. Students will learn how to plot data involving scatter plot, box and whisker, and basic probability involving factorials.

To receive high school credit a student taking Algebra honors must achieve a C grade or higher and pass the End of the Course (EOC) exam. A student who takes the EOC exam and does not score a 3 or higher will have to retake the EOC exam. This is until a score of 3 or higher is achieved to receive Algebra honors credit. Passing the EOC exam is a requirement, even if a student has a passing grade in their Algebra class section. Failure to pass the EOC exam will still give a student credit for 8th grade math. Passing both the course and the EOC will give credit for both 8th grade math and high school math credit. Algebra 1 credit is a requirement for high school graduation.

## Geometry (High School Course)

## Prerequisites:

## Curriculum Guide

- Passed Algebra 1 EOC
- Achieved a C or higher in Algebra 1 Honors

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 standards. The Standards for Mathematical Practice 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 Geometry End of Course Exam is worth $30 \%$ of a student's final grade in the course.

# ELECTIVE COURSE DESCRIPTIONS 

FINE ARTS
$6^{\text {th }}$ Grade, $7^{\text {th }}$ and $8^{\text {th }}$ Grade

## 2D Art-1

## Pre-requisite: none

The purpose of this course is to create artwork with two-dimensional (2D) media such as drawing, painting, printmaking, and collage. This course combines art production with a study in art history, aesthetics and art criticism. Students will use written effort to learn to evaluate, explain, and measure artistic growth in personal or group works. Students will explore the Elements of Art and Principles of Design as fundamental skills necessary to art. This course consists of consumption of art materials and may require a sketchbook as instructed by the teacher.

## 2D Art-2

## Pre-requisite: 2D Art-1

Open to students who have taken 2D Art-1. Students in this course will refine art skills and techniques in twodimensional (2D) media. Students will continue to work with the Elements of Art and Principles of Design as a way to promote creative risk-taking. This course combines art production with study in art history, aesthetics and art criticism of artworks. Students continue to use written effort to communicate the art criticism process as a way to evaluate, explain, and measure artistic growth in personal or group works. This course consists of consumption of art materials and will require a sketchbook as instructed by the teacher.

## 3D Art-1

## Curriculum Guide

## Pre-requisite: 2D Art-1

Open to students who have taken 2D Art-1. Students in this course will learn hand building techniques while expanding on the Elements of Art and Principles of Design in a three-dimensional (3D) form. Media that may include clay, wood, plaster, found objects, and paper maché. Consideration will be made on workability, durability, cost, and toxicity of materials. Students will also focus on use of safety procedures. Students will continue to use written effort to communicate the art criticism process as a way to evaluate, explain, and measure artistic growth in personal growth in personal works. This course consists of consumption of art materials and will require a sketchbook as instructed by the teacher.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## FITNESS

The mission of the fitness education staff is to offer a program of instruction in lifetime physical activities and health education components that relate directly to the well-being of our students. Learning experiences have been developed to provide a comprehensive program of developmental activities ( $6^{\text {th }}$ grade), skill-based instruction ( $7^{\text {th }}$ grade), and sports education team models ( $8^{\text {th }}$ grade) within the middle school experience.

During the school year your child will experience rollerblading, archery, indoor cycling, weightlifting, kickboxing, and many other activities. The purpose is for your child to try a variety of activities and see which ones they find interesting. Creating a lifetime fitness curriculum is our goal for our students, so they can carry their experiences into adulthood.

## JOURNALISM (YEARBOOK)

## Journalism 1 (Application Selection)

The purpose of this course is to enable grade 7 students to develop fundamental skills in the production of journalism across print, multimedia, and photography with the eventual goal being the creation of a yearbook. Students will demonstrate skills in: storytelling, layout design, organization and research skills, photography as well as strong collaboration amongst their peers. Some activities may be required outside of the school day.

## Journalism 2 (Application Selection)

Prerequisite: Journalism 1
The purpose of this course is to enable grade 8 students who have completed Journalism 1 to develop fundamental skills in the production of journalism across print, multimedia, and photography with the eventual goal being the creation of a yearbook. Students will demonstrate skills in: storytelling, layout design, organization and research

## Curriculum Guide

skills, photography as well as strong collaboration amongst their peers. Some activities may be required outside of the school day.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## FOREIGN LANGUAGE

## Beginning Spanish

Prerequisite: (all entering students)
Beginning Spanish introduces students to the target language and its culture. Students will learn beginning skills in listening and speaking and an introduction to basic skills in reading and writing. Also, culture, connections, comparisons, and communities are included in this one-year course.

## $7^{\text {th }}$ and $8^{\text {th }}$ Grade

## Spanish I (High School Course)

## Prerequisites:

- Successful completion of Beginning Spanish
- Teacher recommendation

Spanish 1 introduces students to the target language and its culture. The student will develop communicative skills in all 3 modes of communication and cross-cultural understanding. Emphasis is placed on proficient communication in the language. An introduction to reading and writing is also included as well as culture, connections, comparisons, and communities.

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8'th Grade
Spanish II (High School Course)
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## Prerequisite:

- Successful completion of Spanish I
- Teacher recommendation

Spanish 2 reinforces the fundamental skills acquired by the students in Spanish 1. The course develops increased listening, speaking, reading, and writing skills as well as cultural awareness. Specific content to be covered is a continuation of listening and oral skills acquired in Spanish 1. Reading and writing receive more emphasis, while

## Curriculum Guide

oral communication remains the primary objective. The cultural survey of the target language-speaking people is continued.

## PERFORMING ARTS

All of the performing art programs at Timber Springs Middle strive to meet the highest standards for artistic performance. Students will also learn to perform and appreciate music \& theater from a variety of genres and eras. In addition, classes in the performing arts teach cooperation, loyalty, respect, dependability, responsibility, punctuality, and leadership. Belonging to the school performing arts program will be a rewarding and enlightening experience for students at any ability level. Band, Chorus, Drama, and Orchestra are highly encouraged for ALL students - especially those entering middle school with little experience in the arts. These are a perfect choice for students who love music, theater or both, and want to have positive social interactions with their peers in a group setting. *Students may take more than one performing arts course simultaneously*

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school. BAND

OCPS band programs meet high standards for music performance. Students will also learn to perform and appreciate music from a variety of genres and eras. In addition, band classes teach cooperation, loyalty, respect, dependability, responsibility, punctuality, and leadership. Belonging to the school music program will be a rewarding and enlightening experience for all students. Band is the perfect choice for students who love music, want to have positive social interactions with their peers, and want to build upon their character."

## Band 1

Beginning Band is a performance-based class that introduces students to reading music and learning how to play an instrument. Instruments taught in beginning band are: flute, oboe, clarinet, alto saxophone, bassoon, trumpet, French horn, trombone, euphonium, tuba, and percussion. No previous music knowledge or experience is required to take this course. Students will showcase their skills in concert performances and may have the opportunity to participate in additional music events. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints. Students in any grade ( 6,7 , and 8 ) may begin in this course.

## Band 2

Concert Band is a performance-based class for students who have had at least one year of previous band experience. Students will build on instrumental technique and music literacy through rehearsal, performance, and the study of a variety of musical styles \& genres. Additional instruments available in this course are: tenor saxophone, baritone saxophone, bass clarinet, and more advanced percussion. Concert performances will showcase skills learned throughout the school year. Students also have the opportunity to participate in several

## Curriculum Guide

additional county-wide music events. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints. Students in grades 7 and 8 may enter this course.

Instruments are available at little or no cost. No student will be kept from participation due to financial constraints. School-owned instruments are available. Students in grades 7 and 8 may enter this course.

## Band 3: Jazz Band

Jazz Band is a selective, performance-based class for students who have had at least one year of previous band experience, and who are currently enrolled in a primary band class (i.e. Concert Band, Symphonic Band, and Wind Ensemble). Students are selected by audition to become a member of this band. Students will build on instrumental technique and music literacy through rehearsal, performance, and the study of the comprehensive jazz genre. Music skills and concepts learned in this course will be focused at the highest level of achievement. Additional concerts and public performances will showcase skills learned throughout the school year. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints. Students in grades 7 and 8 may enter this course.

## ORCHESTRA

## Orchestra 1

Students who have little or no experience on violin, viola, cello, bass, or harp explore high-quality music literature written or transcribed for string orchestra. Study includes the development of foundational instrumental ensemble techniques, performance skills, music literacy, and aesthetic awareness. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints.

## Orchestra 2

Students who have some previous orchestral experience focus on the development of instrumental technique, musical literacy, performance skills, and increasing aesthetic awareness through study, rehearsal, and performance of a variety of high-quality orchestra literature. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints.

## Orchestra 3

Students with previous orchestral experience demonstrate intermediate-level knowledge of instrumental techniques, musical literacy, ensemble performance skills, and related musical knowledge through study, rehearsal, and performance of a variety of high-quality orchestral literature. Public performances may serve as a culmination of

## Curriculum Guide

specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. This course requires students to obtain a musical instrument (e.g., borrow, rent, purchase). School-owned instruments are available at little or no cost. No student will be kept from participation due to financial constraints.

## CHORUS

## Chorus 1

Sixth grade girls will develop beginning vocal technique and skills, critical and creative thinking skills, and an appreciation of music from around the world and through time. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

Girls in $7^{\text {th }}$ and $8^{\text {th }}$ grade with or without choral experience will expand vocal, technical, musical, and ensemble skills through rehearsal, performance, and study of high-quality choral literature. Singers focus on increasing knowledge of music theory, music literacy, and aesthetic response. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

## Chorus 2

Girls in $7^{\text {th }}$ and $8^{\text {th }}$ grade with or without choral experience will expand vocal, technical, musical, and ensemble skills through rehearsal, performance, and study of high-quality choral literature. Singers focus on increasing knowledge of music theory, music literacy, and aesthetic response. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

## Chorus 3

Girls in $7^{\text {th }}$ and $8^{\text {th }}$ grade with previous choral experience build advanced knowledge of vocal technique, musical literacy, ensemble skills, and related musical knowledge through rehearsal, performance, and study of a variety of high-quality 2-, 3-, and 4-part choral literature. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

## Male Chorus

Boys in 6th- 8th grade with or without choral experience will expand vocal, technical, musical, and ensemble skills through rehearsal, performance, and study of high-quality choral literature. Singers focus on increasing knowledge of music theory, music literacy, and aesthetic response. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## Curriculum Guide

## Theatre

## Theatre I

Drama is a full year class and is open to all middle school students. No previous experience is required. This very interactive course is filled with improvisation, monologues, partner/group scenes, technical theatre (sound, light, costumes, make-up...) This survey course will introduce students to the basics of theatre arts incorporating acting, design, playwriting, dramaturgy and theatre history. In addition to acting, we will be reading and analyzing famous theatrical pieces. This is a performance based class. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.

## Theatre II

## Prerequisite: Theatre I

Students with previous theatre experience and instruction continue to study acting, design, and dramatic literature to increase the enjoyment and understanding of what is required to prepare plays for the public. Students explore theatre history, study the great American playwrights, examine the cultural and historical contributions to theatre, and begin to use the information to inform and improve their theatre knowledge and skills. Students begin to use the basic elements of theatre design through practical application and projects. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom. There will be outside performances required of students.

## Theatre III

## Prerequisite: Theatre II

Students continue to build skills and knowledge as they explore aspects of theatre. Students explore theatre history, study the great American playwrights, examine the cultural and historical contributions to theatre, and improve their theatre knowledge and skills. Students learn about and begin to use the basic elements of theatre design through practical application and projects. Public performances may serve as a culmination of specific instructional goals. Students may be required to attend and/or participate in rehearsals and performances outside the school day to support, extend, and assess learning in the classroom.
*Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

STEM (Science, Technology, Engineering, \& Mathematics)

## Information and Communication Technology

## Curriculum Guide

The ICT Essentials Suite is an innovative program of engaging instruction designed to engage students with specific and appropriate technologies, and to empower students with the technology skills necessary for education and career pursuits. The essentials courses include: web design, multimedia essentials, programming \& logic essentials, gaming essentials, database essentials, cyber security essentials, and computing essentials.

## $6^{\text {th }}$ Grade:

## Information and Communications Technology (ICT) Essentials 1

This course introduces students to core concepts associated with computers and their use. The content includes hands-on opportunities to explore various software applications, including the creation of a template-based webpage and a basic computer program.
$7^{\text {th }}$ Grade:

## Information and Communications Technology (ICT) Essentials 2

This course builds on the previous course and provides greater depth and more complex concepts and the skills/knowledge to master these concepts. Students will be provided opportunities to extend their skills with various software applications by creating more complex documents and using more complex functions. Students will also be exposed to structured programming and the creation of a more complex computer program.

## $8^{\text {th }}$ Grade:

## Digital Information Technology (High School Course) - New

This course is designed to provide an introduction to information technology concepts and careers as well as the impact information technology has on the world, people, and industry and basic web design concepts. The content includes information technology career research; operating systems and software applications; electronic communications including e-mail and Internet services; basic HTML, DHTML, and XML web commands and design; emerging technologies, and Web page design.

Students who successfully complete this program will be prepared to enter the following CTE programs offered at Timber Creek High school: Java Programming \& Development, Business Computer Programming, Web Development, Cyber Security, and Global Finance.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## Curriculum Guide

## Project Lead the Way: Gateway

Through topics like robotics, flight and space, and DNA and crime scene analysis, students find their natural curiosity and imagination engaged in creative problem solving. PLTW's Gateway program is a strong foundation for further STEM learning in high school and beyond, challenging students to solve real-world challenges, such as cleaning oil spills and designing sustainable housing solutions. Using the same advanced software and tools as those used by the world's leading companies; students learn how to apply math, science, technology, and engineering to their everyday lives. For more information please visit: http://www.pltw.org/

## $6^{\text {th }}$ Grade:

## Medical Detectives (Semester 1)

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a "crime scene." They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

## Science of Technology (Semester 2)

Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-materials.

## $7^{\text {th }}$ Grade:

## Design \& Modeling (Semester 1)

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk ${ }^{\circledR}$ design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

## Flight \& Space (Semester 2)

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. Custom-built simulation software allows students to experience space travel.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## Curriculum Guide

## $8^{\text {th }}$ Grade:

## Automation \& Robotics (Semester 2)

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 ${ }^{\circledR}$ platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

## Green Architecture (Semester 2)

Today's students have grown up in an age of "green" choices. In this unit, students learn how to apply this concept to the fields of architecture and construction by exploring dimensioning, measuring, and architectural sustainability as they design affordable housing units using Autodesk’s® 3D architectural design software.

## PLTW Engineering

## $8^{\text {th }}$ Grade: Introduction to Engineering Design (High School Course)

Students explore this high school course by digging deep into the engineering design process, applying math, science, and engineering standards to hands-on projects like designing a new toy or improving an existing product using the Autodesk Inventor 3D modeling software. Students who take and pass the Autodesk Certified User test will receive industry certification.

## *Electives are possible offerings and are not guaranteed. Offerings will be based on funding, required certification and the discretion of the school.

## Latinos in Action (LIA)

Latinos in Action (LIA) engages Latino male and female students to improve themselves through education, leadership, and service. Students in LIA celebrate and honor the diverse cultures that contribute to their Latino heritage. Students have several opportunities for key leadership experiences and are engaged in learning by working with elementary school students on a weekly basis with reading skills and comprehension and planning several community service projects throughout the school year. (7th and 8th graders only)

## Curriculum Guide

## SPECIAL PROGRAMS

## Exceptional Education Services

Support is available to meet the needs and abilities of the exceptional education students staffed into an ESE program and have a current Individual Education Plan. ESE course offerings include Consultative support, CoTaught Language Arts, Co-taught Math and Facilitated courses. The Exceptional Student Education program plays an important part in addressing the needs of students who are special learners. The primary focus on each ESE class is to provide the most appropriate educational services for the student through nationally recognized curricula and behavioral approaches in an inclusive setting.

If you have specific questions regarding the Exceptional Education Program at Timber Springs Middle School, please contact Mrs. Sonia Mullins, ESE Staffing Specialist.

## Gifted Students

Advanced and Honor Level Classes are available to challenge students who are staffed into the Gifted Program. Students are scheduled with a gifted endorsed teacher in at least one or more core subject areas. FSA scores, classroom performance/academic rigor, teacher recommendation and Gifted Education Plan placement will determine class assignments.

## English Language Learners (ESOL) Program

## Purpose

To meet the linguistic, academic, and cultural needs of our English Language learners (ELL), by delivering comprehensible and differentiated instruction of grade level standards, and using appropriate strategies and accommodations.
Help our students d evelop and strengthen the skills needed to attain learning gains on the state's assessment (FSA) and meet adequate yearly progress.

## ESOL Mainstream / ESOL Regular

In Basic Mainstream Instruction students are taught exclusively in English alongside fluent English speakers. Once out of the ESOL program, students' academic progress is monitored for two years to ensure academic success.

## Contact Information:

Mrs. Laura Grullon - Guidance Counselor/ Compliance 321-413-2201 ext. 2306
OCPS Multilingual Department -https://www.ocps.net/cs/multilingual/Pages/default.aspx
Student websites:
http://www.starfall.com/
http://www.colorincolorado.org/ http://www.ocls.info/


[^0]:    *Please note there are many options for class order and it is handled at the discretion of the school.

