

Laing Middle School of Science & Technology

Course Catalog

2019-2020



STUDENTS ARE
THE HEART



OF OUR WORK!

Charleston >excellence is our standard
County SCHOOL DISTRICT

LAING MIDDLE SCHOOL OF SCIENCE & TECHNOLOGY
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Laing Middle School Mission Statement

The mission of Laing Middle School of Science and Technology is to prepare and inspire generations of learners to meet the challenges of our 21st century society by fostering technological literacy, academic achievement, innovation, collaboration and creative problem-solving.

Disclaimer: This Course Guide contains information current as of May 2019. As state and district policies and regulations are revised, this document will be updated. Updated information will be available on the Laing Website. Some courses in the Course Guide may not be offered due to lack of enrollment.

Dear Students,

Welcome to Laing Middle School of Science and Technology (LMSST). Did you know that you are attending the Number #1 STEM school in the nation? The teachers and staff are dedicated to providing excellent learning experiences for you in a safe and supportive learning environment. This Course Guide is intended to provide information about the courses available next year at Laing. We are certain that you will find these courses to be challenging and worthwhile in preparing you for the next grade level at LMSST and beyond.

Students will take four academic courses: English language arts, mathematics, science, and social studies. These classes will meet for the entire year. In addition, related arts classes and magnet classes in science and technology are designed to provide you with a variety of experiences at Laing. You will be assigned to teachers based on your grade-level. In most instances, all of your core courses will be located in one hallway. In order to provide the greatest flexibility in scheduling your classes and accommodating your strengths and needs (i.e. honors courses, inclusion courses, gifted and talented instruction, academic interventions); we want you to have access to all classes necessary to help you reach your academic potential. In addition to your academic coursework, you will be scheduled in a grade level homeroom class where you will participate in a variety of advisement activities. You will also have the opportunity to participate in after school clubs. This allows you to be actively involved in school life and to assist in developing your social skills.

LMSST has a tradition of excellence in academics, athletics, and the arts. We know that you will continue that tradition. We will continue to support your success as a student by providing you with a variety of opportunities. Your parents/guardians and our community members are always welcome to volunteer their time and talents to improve our school. Our PTO organizes many events including our volunteer program to assist in all areas of our school. Volunteers are needed in such areas as our front office, guidance department, media center, grade level programs, and fine arts programs. We also need your parents/guardians in such areas as school beautification, fund raising, teacher appreciation, and chaperoning. Please encourage them to be involved. We look forward to a great school year!

Sincerely,

James Whitehair
Principal

GENERAL INFORMATION

CORE ACADEMIC COURSES

All students will receive instruction in four core subject areas. These subjects are English language arts, mathematics, science, and social studies. These core courses are based on the South Carolina Curriculum Standards for the particular subject area. Honors courses are available to students who meet the Laing Honors Criteria. All honors and regular academic courses are designed to provide students with engaging, relevant, and rigorous academic instruction in the given area as outlined by the South Carolina Curriculum Standards for the particular subject.

In addition to these courses, a description of academic courses for students for high school credit is listed within the Course Guide.

CHARLESTON COUNTY MIDDLE SCHOOL HONORS CRITERIA

CCSD and Laing Middle School of Technology understand that to meet the needs of each child a uniform system across the district needs to be in place to identify students who would benefit from more challenging classes. 6th grade students will qualify for an honors level course if they score 5 out of 8 points. 7th and 8th grade students will qualify for an honors level course if they score 7 out of 10 points. Students will be scored based on the following criteria:

- MAP Scores
- ACT Aspire Test
- Final Course Grade
- Identification of Gifted & Talented
- Teacher Recommendation (7th and 8th grade only)

Not updated for 2019 -2020

6th Grade Placement Rubric for 2018-2019

Scholar Name:

Gender:

2017-2018 School:

Ethnicity

2018-2019 School:

Lunch Status:

Homeroom Teacher:

IEP:

504 Plan:

Placement Criteria		ELA	Math
1	<p style="text-align: center;"><u>MAP Spring 2018*</u></p> <p style="text-align: center;">=>91% = 3 points 83--90% = 2 Points 73(72)-- 82% = 1 Point =<72(71)% = 0 Points</p>		
2	<u>SCREADY Spring 2017</u>		
	ELA	MATH	
	Exceeds = 2 Points Meets=1 Point	Exceeds= 2 Points Meets=1 Point	
3	<p style="text-align: center;"><u>Current Course Grade</u></p> <p style="text-align: center;">A = 2 Points 90-100 B = 1 Point 80-89</p>		
4	<p style="text-align: center;"><u>Identified as Academically Gifted and Talented</u></p> <p style="text-align: center;">1 Point</p>		

	Total			
	Minimum of 5 out of 8 points to qualify for honors			

*Reading MAP 5 th grade				*Math MAP 5 th grade	
Percentile	RIT Cut/Range			Percentile	RIT Cut/Range
=/>91%	232			=/>91%	243
83--90%	226--231			83--90%	237--242
73--82%	221--225			72--82%	231--236
=/<72%	220			=/<71%	230

Percentile changes are due to RIT cut scores based on NWEA 2015 RIT Scale Norms--Spring RIT Score to Percentile Rank Conversions.

The ELA score is based on the SCREADY English, Reading, and Writing combined score.

*6th Grade Placement Rubric
Revised--3/26/2017*

Not updated for 2019 -2020

7th Grade Placement Rubric for 2018-2019

Scholar Name:	Gender:
2017-2018 School:	Ethnicity:
2018-2019 School:	Lunch Status:
Homeroom Teacher:	IEP:
	504 Plan:

Placement Criteria		ELA	Math
1	<p><u>MAP Spring 2018*</u></p> <p>=/>90(91)% = 3 points</p> <p>83(84)--90% = 2 Points</p> <p>73--82(83)% = 1 Point</p> <p>=/<72% = 0 Points</p>		
2	<u>SCREADY Spring 2017</u>		
	ELA	Math	
	Exceeds = 2 Points Meets = 1 Point	Exceeds = 2 Points Meets = 1 Point	
3	<p><u>Current Course Grade</u></p> <p>Honors A = 3 Points 90-100</p> <p>Honors B = 2 Points 80-89</p> <p>Regular A = 2 Points 90-100</p>		
4	<p><u>Identified as Academically Gifted and Talented</u></p> <p>1 Point</p>		
5	<p><u>Teacher Recommendation for Course **</u></p> <p>1 Point</p>		

	Total		
	Minimum of 7 out of 10 Points to qualify for honors		

*Reading MAP 6 th grade			* Math MAP 6 th grade	
Percentile	RIT Cut/Range		Percentile	RIT Cut/Range
=/>90%	235		=/>91%	248
83--89%	230-234		84--90%	242--247
73--82%	225-229		73--83%	236--241
=/<72%	224		=/<72%	235

Percentile changes are due to RIT cut scores based on NWEA 2015 RIT Scale Norms--Spring RIT Score to Percentile Rank Conversions.

The ELA score is based on the SCREADY English, Reading, and Writing combined score.

****Teacher Recommendation for course based on work ethic, work completion, and class participation.**

*7th Grade Placement Rubric
Revised-3/26/17*

Not updated for 2019 -2020

8th Grade Placement Rubric for 2018-2019

Scholar Name:
 2017-2018 School:
 2018-2019 School:
 Homeroom Teacher:

Gender:
 Ethnicity:
 Lunch Status:
 IEP:
 504:

Placement Criteria		ELA	Math
1	<p><u>MAP Spring 2018*</u> =>90(91)% = 3 points 83(84)-90% = 2 Points 74--82(83)% = 1 Point =<73% = 0 Points</p>		
2	<u>SCREADY Spring 2017</u>		
	ELA	Math	
	Exceeds = 2 Points Meets = 1 Point	Exceeds = 2 Points Meets =1 Point	
3	<p><u>Current Course Grade</u> Honors A = 3 Points 90-100 Honors B = 2 Points 80-89 Regular A = 2 Points 90-100</p>		
4	<p><u>Identified as Academically Gifted and Talented</u> 1 Point</p>		
5	<p><u>Teacher Recommendation for Course **</u> 1 Point</p>		

	Total		
	Minimum of 7 out of 10 points to qualify for honors		

*Reading MAP-- 7th grade			Math MAP-- 7th grade	
Percentile	RIT Cut/Range		Percentile	RIT Cut/Range
=/>90%	238		=/>91%	252
83--89%	233-237		84--90%	246--251
74-82%	228-232		74--83%	240--245
=/<73%	227		=/<73%	239

Percentile changes are due to RIT cut scores based on NWEA 2015 RIT Scale Norms--Spring RIT Score to Percentile Rank Conversions.

The ELA score is based on the SCREADY English, Reading, and Writing combined score.

****Teacher Recommendation for course based on work ethic, work completion, and class participation.**

*8th Grade Placement Rubric
Revised-3/26/2017*

COURSES FOR HIGH SCHOOL CREDIT

The grades earned in high school credit courses offered at Laing Middle School will be recorded and counted on the student's high school transcript. However, high school credits earned in courses taught in middle school do not count toward NCAA eligibility requirements for student athletes and may result in the student's need to take additional high school courses.

GIFTED AND TALENTED

Students identified as Gifted and Talented will receive services in an academic course in accordance with state and federal guidelines.

SCHEDULES 2019-2020

Teacher assignments, course offerings, and class sizes are determined from registration information. The master schedule is developed based on student data available in the Spring and class assignments are made to ensure a variety of related arts experiences are provided to students.

Drop/Add Class Policy

7th/8th Grade Yearlong Classes (Band, Strings, Chorus, Spanish I – 8th grade only)

Students can ONLY drop the courses at the end of a semester. Meanwhile, they must maintain their academics while in that class (and they can work out any system/plan, etc. with the teacher to do so) until the end of that semester.

6th Grade Yearlong Classes (Band, Strings, Chorus)

Students have a period of 5 school days in order to drop or add these courses. They should fill out a schedule change request form, discuss it with their parents and, in turn, the class teacher and have it turned into guidance by the 5th day. If no request is received within the 5th day, then that student must wait until the end of the semester to change classes (unless otherwise noted by that classroom teacher).

Related Arts classes will NOT be changed unless there is a medical reason (ie. note from a doctor not to participate in PE, etc.) or an exceptional case. All of these requests must occur within the **5-day** drop/add period.

PLEASE NOTE: CHOICES OF TEACHERS CANNOT BE HONORED.

EXCEPTIONAL NEEDS EDUCATION

A goal of the Charleston County School District is to provide a free and appropriate public education for all students with disabilities. A highly qualified staff works collaboratively to identify and provide appropriate accommodations, modifications, and instructional strategies to support academic and social success in the classroom. Students with disabilities will be scheduled for their courses in accordance with their respective Individual Education Plans (IEP) in accordance with Public Law 94-142 (IDEA).

MEASURES OF ACADEMIC PROGRESS (MAP) and RASCH UNITS (RIT)

Measures of Academic Progress (MAP) are a series of tests that measure your student's knowledge in reading, language usage, and math. These tests are administered up to three times a year in grades 2 - 10. All of the MAP tests report scores use the RIT (Rasch Unit) scale to measure student achievement in a given area. The RIT is an equal interval score that directly relates to the curriculum scale in each subject area. RIT scores range from about 150 to 300. Students typically start at the 150-190 level in third grade and progress to the 240-300 level by high school. RIT scores make it possible to follow a student's educational growth from year to year. The RIT scores indicated as a qualifying factor for specific courses were obtained through analysis of the Northwest Education Association's Placement Guidelines and the Charleston County School District's RIT to Palmetto Assessment of State Standards (PASS) Probability guidelines.

CAREER CLUSTERS AND INDIVIDUAL GRADUATION PLANS

The South Carolina Education and Economic Development Act (EEDA) require school districts to develop a curriculum around the career cluster system that includes sixteen career clusters, schools of study, and majors. Students work with guidance counselors in order to examine their interests in schools related to their future course selections in high school and beyond. These career pathways provide opportunities to students through a challenging array of academic and technical courses necessary for students to compete in a global economy. Success in school is connected to success in life.

Students, parents, and counselors work together to develop Individual Graduation Plans (IGP) that specify a student's cluster, academic focus (major), and post-secondary goals. The Individual Graduation Plan is a document that states the student's intentions related to courses that are taken during high school. **The IGP is initiated in the 8th grade with the choice of a cluster area.** When the IGP is updated in the 10th grade, the students will select an academic focus (major) within their cluster of choice. The courses that are taken are determined by the student's interests. It can be modified over time as interests and skills develop and change. The IGP is like a road map to the future: if the student stays on course, he/she will be equipped with all the courses, skills and experience needed to take his education or career to the next level. Each year the student, parents/guardians, and counselors will review and update the plans for the coming year. Switching clusters or majors is acceptable. It is just as important for a student to learn what he doesn't like as it is for him to learn what he does like. Remember, this is a road map to the future.

COURSE DESCRIPTIONS

English Language Arts

English 6

This course is designed to meet the needs of students transitioning from elementary to middle school instruction in reading and language arts. Instruction will continue to reinforce foundational skills in reading and to provide ample scaffolding for those students whose reading skills are still developing. Writing instruction, vocabulary development, and research skills will be taught in conjunction with the literature studied.

Honors English 6

In addition to meeting the standards set forth for English 6, this course is designed to meet the needs of academically advanced students who were identified through the Laing honors criteria. Students should expect to find the curriculum challenging in a number of ways: text complexity, analytical writing, problem solving, creative endeavors, and an accelerated pace. Students can expect rigorous instruction in literacy through literature circles, Socratic discussion and project-based learning.

English 7

Seventh grade students continue to apply and expand their skills by reading and writing a variety of informational texts, fiction, literary nonfiction, poetry, and drama. Students will use word analysis and other interpretive strategies to master texts that use complex vocabulary. Seventh grade students write for a variety of purposes and audiences blending elements of descriptive/expressive writing into modes of written works such as narrative, expository, and persuasive/argumentative and conduct specific research. The ability to constructively critique their own and other's work is enhanced.

Honors English 7

In addition to meeting the standards set forth for English 7, students who are academically advanced will be challenged through the study and analysis of more compelling literature, analytical writing, and SAT word study at an accelerated pace.

English 8

This course is designed to refine and master previously learned knowledge and skills in increasingly complex reading selections and written compositions. Students will read a variety of informational texts as well as four major types of literary texts: fiction, literary nonfiction, poetry, and drama. Students will use word analysis to master texts that use complex vocabulary and will transfer that knowledge into their own writing and speaking. Students will write for a variety of purposes and audiences as they increase their control over the written language. Students will use the writing process to write narrative, expository, and persuasive texts. Through a research project, students will

learn how to access, analyze, and evaluate information while learning about topics that are relevant to their lives and that appeal to their interests.

Honors English 8

This course is for students with advanced abilities in reading and writing. The honors curriculum will place a large emphasis on critically analyzing and interpreting wide varieties of literature. This class will also focus on the steps of research including: developing a thesis, finding credible support, documenting that support properly, and writing in MLA format. Students will be expected to read independently on a consistent basis and independent projects are an integral part of this course. Summer reading is also required.

Mathematics

All of our course offerings are based on previous yearly class averages, MAP scores, and/or a Laing Mathematics Assessment which assists in differentiating students' needs.

Math 6

This is a standards-based sixth grade class. Sixth grade math is a more in-depth continuation of many of the same standards introduced in fifth grade. The general areas that are thoroughly covered are number and operations, measurement, data analysis and probability, algebra, and geometry. Students will be expected to accurately compute, explain processes, and model many different algorithms. Homework is an integral component of the class.

Honors Math 6

This is a standards-based sixth grade class that is designed to help students begin the transition from arithmetic to algebraic thinking. The course includes operations with fractions, decimals, and percents, coordinate graphing, area of figures, and patterns. There is an introduction to integers, equations, and inequalities. Homework, as well as projects, is an integral component of the class.

Math 7

This is a standards-based seventh grade class. Students will investigate applications of number theory and will acquire skills in adding, subtracting, multiplying, and dividing integers. Students will solve one and two step equations and inequalities, use proportional reasoning, and use percents to solve a variety of problems. Students will develop algebraic thinking by analyzing patterns to discover relationships. Homework is an integral component of the class.

Honors Math 7 (Pre-Algebra)

This is a 7th & 8th grade standards-based seventh grade class. The major emphasis is on applying algebraic concepts and skills related to decimals, fractions, percents, and integers to solve a variety of real-world problems. Students will extend their algebra knowledge to solve multi-step equations and inequalities as well as simplifying expressions. Students will also use proportions and measurements to solve a variety of problems. Since this class extends prior knowledge, students should expect it to be fast paced. Students are expected to make connections, communicate their reasoning, and keep up with all classwork and homework.

Math 8

Math 8 is foundational for eighth grade students to prepare them for Algebra 1. The course is organized according to the SC Academic standards. Students in Math 8 will study the following concepts: the Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability. Homework is an integral part of Math 8.

Honors Math 8

Honors Math 8 is foundational for eighth grade students not quite ready for Algebra 1. The course is organized according to the SC Academic standards. Students in Honors Math 8 will study the following concepts: the Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability. This course will move at a faster pace and go more in depth than Math 8. Homework is an integral part of Honors Math 8.

Algebra I (for High School Credit)

This course is designed for students who have been highly successful in middle-school mathematics and have met the requirements based on their MAP test scores and previous math class final averages. Students should have a strong foundation of all operations of decimals, fractions, and integers. Previous PASS scores should show these students as Exemplary. The course is fast-paced and homework plays an integral part of the coursework. Algebra I is based on the Algebra (9th grade) state standards and studies inequalities, systems of equations, graphing linear and nonlinear functions, polynomials, quadratics, factoring, and using the tools of algebra to solve problems. A state-mandated EOC (end-of-course) exam, which counts 20% of the final average, is given to every student enrolled in the course. These students will also take the 8th grade end of the year state standardized test based on their current grade math state standards.

Honors Geometry (for High School Credit)

Prerequisite: A 90 or higher in Algebra I

This course is designed to provide students with the study of visual patterns. Topics will include geometric structure, geometric patterns, geometry of location, geometry of size, and geometry of shape.

Science

Science 6

The focus for this sixth-grade science class is to provide students with inquiry based experiences that develop science concepts in the following areas: Structures, Processes and Responses of Plants; Structures, Processes and Responses of Animals; Earth's Atmosphere and Weather; and Conservation of Energy. Students should expect to find the curriculum challenging in a number of ways: text complexity, analytical writing, problem solving, creative endeavors, and an accelerated pace.

Science 7

In this seventh-grade science course students will be studying and investigating topics in life, earth, and physical science as part of the South Carolina Science Standards. Instructional materials that encourage hands-on activities and investigations will be used; as a result, students will discover important science concepts and develop laboratory and thinking skills. Students will be actively involved and work cooperatively much like real scientists! The topics covered include: Scientific Inquiry, the Human Body, Microorganisms, Genetics, the Chemical Nature of Matter and Ecology (Abiotic and Biotic). Students should expect to find the curriculum challenging in a number of ways: text complexity, analytical writing, problem solving, creative endeavors, and an accelerated pace.

Science 8

The focus for this eighth grade science course is to provide students with inquiry based experiences that develop science concepts in the following areas: Earth's Biological History; Earth's Structure and Processes; and Astronomy, Forces and Motion, and Waves.

Social Studies

Social Studies 6

This sixth grade social studies course expands students' understanding of history through the study of people, places, and events. The curriculum spans pre-history (early man) through the Renaissance and early exploration. Students focus not only on facts about various cultures, but also on the significance of geography in history, people's everyday lives, problems, and accomplishments, and their roles in developing the social, economic, and political structures of major civilizations. Instruction will emphasize the elements of social studies literacy — the tools, strategies, and perspectives necessary for understanding how history, geography, economics and government are interwoven. Students should expect to find the curriculum challenging in a number of ways: text complexity, analytical writing, problem solving, creative endeavors, and an accelerated pace.

Social Studies 7

This seventh grade social studies course continues the study of world cultures with a focus on the changes that have occurred in Europe, Africa, Asia, and the Americas from 1600 to the present. Students examine the history, geography, and continuing changes in political and economic ideas that have shaped the world in which we live today. Students also address the growing interaction among societies developing concurrently during this period, including the exchange of ideas, beliefs, technologies, and commodities. Instruction will emphasize the elements of social studies literacy — the tools, strategies, and perspectives necessary for understanding how history, geography, economics and government are interwoven. Current events are taught weekly through examinations and discussions of local, state, and world happenings. Students should expect to find the curriculum challenging in a number of ways: text complexity, analytical writing, problem solving, creative endeavors, and an accelerated pace.

Social Studies 8

This eighth grade social studies course focuses on the history of South Carolina and the role that the state and its people have played in the development of the United States as a nation. Students learn about the state's development during colonial times and the growth of the American ideal that led to the break with England, the rising controversy about slavery, and the War Between the States. The study of the rebuilding of South Carolina after the War Between the States and the continuing struggle for civil rights and justice waged by the people of South Carolina allows students to see the progress that the state has made and to appreciate the contributions that its people have made to the nation as a whole. Students also learn about the major political, economic, and social changes in South Carolina through the twentieth century and to the present in the context of national and worldwide events. Instruction will emphasize the elements of social studies literacy — the tools, strategies, and perspectives necessary for understanding how history, geography, economics and government are interwoven in our state's history.

World Languages

Exploratory Spanish

6th grade only

Exploratory Spanish is designed to familiarize students with the learning of a new language. In exploratory Spanish, students will learn that Spanish is not only spoken in Spain, but in many countries around the world. In addition, through communicative language learning and in-class activities, students will acquire basic expressions and vocabulary words in the target language.

Introductory Spanish

7th grade only (Prerequisite if student plans to take Spanish 1 in 8th grade)

This is an exploratory course in Spanish that will introduce seventh grade students to basic Spanish vocabulary, grammar, and culture. Through a variety of projects and activities, students will begin learning some basics of the Spanish language including vocabulary, expressions, and verb conjugations to form sentences both verbally and in written form. This course is designed to elicit interest in the language that will inspire future study, as well as serve as an introduction to Spanish 1.

Spanish 1 (for High School Credit)

8th grade only

Prerequisite: Students must have a C or higher in ELA to participate in Spanish I and must participate in 7th grade Exploratory Spanish. Students will also need a teacher recommendation. There are a limited number of seats in this course.

Spanish 1 begins the development of the basic language skills in Spanish through practical activities that focus on meaningful personal communication through writing and speaking. Beginning level students will be able to understand simple questions in limited contexts, orally express themselves using structured vocabulary and grammar, read simple sentences, and write using structured vocabulary and grammar. This course has a challenging curriculum requiring extra time commitment from students as well as the ability to work independently. Following the successful completion of instruction, Spanish I credit is given toward high school graduation requirements. Student success in core classes is essential to the acquisition of a foreign language. Consistent practice and effort in doing homework along with the development of study skills are necessary for success.

Career and Technology Education

Computer Science 6

This course will utilize the Project Lead the Way (PLTW) Innovators & Makers curriculum programming a Micro:bit to use sensors that interact with the environment. Students learn to program a microcontroller and how input and output devices are used. The programming used are JavaScript blocks.

Discovering Computer Science (0.5 High School Credit)

*For **8th** grade students: Discovering Computer Science can be combined with Digital Literacy (7th Grade) to complete the HS Computer Science Credit during 2019-2020.*

*For **7th** grade students: Students will complete Part 1 in 7th grade and Part 2 in 8th grade to gain the Computer Science HS credit. It must be the same course, it cannot be matched with Fundamentals of Computing Part 1 or 2.*

In this course, students will discover introductory computer science topics with an emphasis on computational thinking and problem solving. Students will be empowered to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will create their own websites, apps, and games.

Fundamentals of Computing (High School Credit)

For 8th grade students: Fundamentals of Computer Science Part 1 & 2 will also satisfy the HS Computer Science Credit (Parts 1 & 2 must be taken in 8th grade to get credit {0.5 credit per semester} OR if Digital Literacy was taken in 7th grade only Part 1 would need to be taken for 2019-2020.

For 7th grade students: Students will complete Part 1 in 7th grade and Part 2 in 8th grade to gain the Computer Science HS credit. It must be the same course, it cannot be matched with Discovering Computer Science Part 1 or 2.

This course is designed to introduce students to the field of computer science through an exploration of engaging and accessible topics. Through creativity and innovation, students will use critical thinking and problem solving skills to implement projects that are relevant to students' lives. They will create a variety of computing artifacts while collaborating in teams. Students will gain a fundamental understanding of the history and operation of computers, programming, and web design. Students will also be introduced to computing careers and will examine societal and ethical issues of computing.

GTT - Medical Detectives – 8th Grade

In this science class, students explore the biomedical sciences through hands-on projects and labs that require them to solve a variety of medical mysteries. Students investigate medical careers, vital signs, diagnosis and treatment of diseases, as well as human body systems such as the nervous system. Orthopaedics will be investigated as students explore problems engineers and physicians are challenged with in the musculoskeletal system, and medical device design.

Genetic testing for hereditary diseases and DNA crime scene analysis put the students in the place of real life medical detectives as they attempt to solve medical mysteries.

Units of Instruction

- What is a Medical Detective?
- Mysteries of the Human Body
- Murder Mysteries
- Orthopaedics in Action

Gateway to Technology 6

Programming your robot to avoid obstacles or move out at a clap of your hands is all part of what to expect of the pre-engineer. Classes start with the basic robotic behaviors of movement and become increasingly more difficult as sensors and new challenges are introduced. Science, Technology, Engineering and Math (STEM) are incorporated daily into lessons. Interested students should enjoy hands on building as well as working with computers. Brainstorming and problem solvers, please apply.

Gateway to Technology 7

Students are introduced to the Inventor drawing program. This CAD program allows students to accurately draw their designs in a 3-D environment. Topics covered in the course include simple machines, energy and design and fabrication.

Gateway to Technology 8

Students build on fundamentals presented in Part I. Topics covered include flight and space, electronics and automation and robotics. Students design and build a wide variety of projects such as race vehicles, hot air balloons, compressed air rockets, and use the CAD drawing program to build a robotic arm.

Performing Arts

All Performing Arts classes are year long, require approval of the respective director prior to registration, and may require an associated fee.

Band 6

This is where it all begins! Students do not need to have played a musical instrument or have had any type of prior musical instruction to join. This is a yearlong course that is required in order to participate in band during the 7th and 8th grade.

Students are placed on instruments through a basic aptitude test that is administered by professional musicians on each instrument. They are placed on instruments on which they show a high level of potential skill and seem interested/excited about the prospect of playing. These instruments include flute, oboe, clarinet, saxophone, trumpet, French horn, trombone, baritone, tuba, and percussion (percussion consists of many instruments such as snare drum, bass drum, xylophone, piano, timpani, etc).

Students will spend this first year of band learning how to play their instrument and to play as a group, which will include concerts and performances.

Band 7

Prerequisite: Band 6

Students will continue advancing their level of proficiency on their instrument as individuals and as an ensemble. These are both yearlong courses.

7th Grade Band students continue to build on the foundation built in 6th grade. They begin to learn advanced playing techniques, more challenging music, and have more performing opportunities.

Band 8

Prerequisite: Band 7

8th Grade Band students will continue to advance in proficiency on their instrument and play more advanced music. This group will also have the opportunity to perform one evening in the fall with the state champion Wando High School Marching Band.

Symphonic Band

All students from both 7th and 8th grade bands will combine to form the Laing Symphonic Band. These students will perform in more concerts, audition for Region and State Honor Bands, rehearse and perform with guest clinicians from some of the best college music schools in the southeast, and represent Laing Middle School at State Concert Festival.

Jazz Band (Extracurricular Opportunity)

7th and 8th grade band students have the opportunity to participate in the Jazz Band, which meets once a week after school. This includes any band students that also play guitar, bass, or piano.

String Orchestra 6, 7, 8

This yearlong course is designed for students who are interested in learning to play the violin, viola, cello, or string bass. Students will learn to play a variety of music and styles including fiddling, rock, celtic, pop, film, and classical. 6th grade students begin with basic technique and music notation. Little to no experience is required at the beginning of the 6th grade level. 7th and 8th grade students continue their development of playing technique and music literacy and their orchestral music repertoire demonstrates more intermediate and advanced skills.

Students will perform in concerts and have the opportunity to participate in performance trips, competitions, and festivals. A few additional rehearsals and performances will occur outside of the regular class period.

Chorus 6, 7, 8

The chorus classes consist of a group of singers and/or dancers who sing and perform choral compositions from a variety of historical periods. The chorus sings 2 and 3 part selections. Performances and attendance is required. There will also be extra

rehearsals occasionally. There is no former experience necessary, just a love of singing.

Music - Fundamentals of Music Performance:

This is basic general music class. It is either semester long or for one nine week grading period depending on grade level. Students will learn basics music theory and note reading. This will be applied through basic drumming and clapping. Students will be tested each week on these techniques.

Related Arts Courses

The following exploratory classes are at least one nine- week period in duration. Students will be randomly assigned to courses. Efforts will be made to provide all students with a variety of exploratory courses.

Advanced Art

8th grade only

Prerequisite: Teacher recommendation

This course is designed for the serious art student, with prior background knowledge and instruction in visual art. Art I will be offered first semester with a concentration in drawing, painting, and printmaking. Art II will be offered second semester with a concentration in computer graphics, pottery, and sculpture. Critical analysis, creative expression, cultural heritage, and aesthetic perception, along with art history and the elements and principles of design will be included in all media areas. Students are allowed to sign up for 1 or 2 semesters of study.

Art 6, 7, 8

This course is designed for students with little or no prior preparation in art. The course content includes concentration in the major areas of critical analysis, creative expression and production, cultural heritage and aesthetic perception. Students will study principles and elements of two and three-dimensional design through drawing, printmaking, painting, and sculpture. Major artists, periods, and styles will be studied.

Google Basics

Sixth Grade Only

This course is designed to introduce the student to basic Google tools and applications through the completion of real-world student-centered activities.

Introduction to Forensics - 6th Grade

In this introductory course to Forensics, students will discover the science inquiry skills needed to solve crimes! Students will further develop critical thinking skills while using science and engineering practices to solve forensic science problems. Analyzing data and evidence are emphasized as students learn about crime scene investigations. Students take on the role of forensic science investigators as they attempt to determine “whodunit!”

Units of Instruction

- Forensic Science Skills
- Trace Evidence
- Prints and Casts
- Crime Scene Investigations

Forensics - Crime Scene Science – 7th Grade

In Crime Scene Forensics, students will further investigate crimes while applying their scientific skills. This class emphasizes science and engineering practices as well as critical thinking in order to solve crimes. Students take on the role of forensic scientists, anthropologists, entomologists, etc., as they attempt to determine “whodunit” - just like real crime scene investigators!

Units of Instruction

- Forensic Science Skills
- Prints & Trace Evidence
- Identifying an Individual
- Crime Scene Investigations
- Bringing Evidence to Court

Marine Science 6

The focus of Marine Science 6 is to provide students with inquiry based experiences that develop concepts about the plants and animals that live in or near the ocean, including both invertebrates and vertebrates. Emphasis will be placed on the adaptations of these organisms that allow them to live in this environment.

Marine Science 7

The focus of Marine Science 7 is to provide students with inquiry based experiences that develop concepts about biotic and abiotic components of the ocean environment. Emphasis will be placed on ecosystems, food chains and webs, and changes to the environment due to natural causes.

Marine Science 8

The focus of Marine Science 8 is to provide students with inquiry based experiences that develop concepts about oceanography. Emphasis will be placed on waves, buoyancy and density, water quality, and formation of islands. Also included in Marine Science III is the study of underwater technology.

Health

This course enables students to gain the tools necessary to achieve and maintain total well being. This course provides information to students to help them live long, energetic, and productive lives. Health education provides information in such a way that it influences people to change attitudes and make the best decision possible so they can take positive action about their health.

Physical Education

This course is based on a variety of activities (individual, team, and dual sports) that provide students with choices and the skills to live a healthy active lifestyle. This course also places an emphasis on fitness. Students will be required to perform the mile run, push up, curl up, pacer, and sit-n-reach (flexibility) tests several times throughout this course. Improving physical fitness and skill levels can only happen if the student puts forth effort both in the classroom and outside the classroom. Students are required to participate and dress out daily.

Theatre 6

In Theatre 6, students will learn the expectations of professional actors. The essential question, what should a professional actor know and be able to do? The units of study for this course will include:

- Improvisation skills (myriad games and activities throughout the quarter)
- Acting with face, body, and voice
- Pantomime skills and how to build mime scenes with beginning, middle, and ending
- How to perform a monologue (how to audition for a role using a non-memorized monologue)
- Teaching acting (effective use of face, body, voice) and teamwork through Reader's Theater.

Theatre 7

In Theatre 7, students will expand upon the essential question: what should a professional actor know and be able to do? The units of study will include:

- Improvisation skills (myriad games and activities throughout the quarter)
- Pantomime skills and how to build more complex mime scenes with beginning, middle, end
- How to perform a monologue (how to audition for a role using a memorized monologue; how to memorize a monologue; how to choose a good monologue for the individual student to perform).
- Writing and performing student-written monologues
- Teaching acting and teamwork through Reader's' theater

- Acting in 2 person scenes, knowing a character's motivation and playing the character objective

Theatre 8

In Theatre 8, students will continue to expand upon the essential question: what should a professional actor know and be able to do? The units of study will include:

- Improvisation skills (myriad games and activities throughout the quarter)
- Pantomime skills and how to build more complex mime scenes with beginning, middle, end
- How to perform a monologue (how to audition for a role using a memorized monologue; how to memorize a monologue; how to choose a good monologue for the individual student to perform)
- Writing and performing student-written monologues; writing and performing student-written multi-character scenes
- Teaching acting and teamwork through Reader's' theater
- Essential elements of Directing: How to effectively stage a readers theater piece; learning the role of a stage Director
- Acting in two or more person scenes, knowing a character's motivation and playing the character's objective
- Throughout the semester, the grading rubric for acting skills emphasizes the BIG 4: character, believability, movement, and voice

Entrepreneurship 6

Students are introduced to the fundamentals of business, economics and entrepreneurship. Topics include Supply and Demand, competitive advantage, business math including the calculation of revenue, expenses and profit and loss, biographical studies of significant entrepreneurs and an examination of the types of businesses such as manufacturing, retail, wholesaling and service. Local entrepreneurs from the Charleston area also regularly speak to the class about their business and entrepreneurship

Entrepreneurship 7

In this semester class, students delve deeper into business and entrepreneurship. No prerequisite is required. Topics include Business math concepts including revenue, expenses, profit and loss, cost-of-goods sold and calculating profit margins. Analysis of corporate structures such as C Corps, S Corps and LLCs as well as marketing, branding, competitive advantage and the product life cycle are covered. A favorite unit for the students is the explanation of the time value of money and how investing early yields gigantic returns later.

Entrepreneurship 8

In this class, each student develops a business idea of their own choosing and then creates a dynamic business plan for it. It is an exciting endeavor as students take the idea to reality. No prerequisite is required. Topics covered include marketing, product development, market segmentation, feature and benefits and key financial metrics. Several opportunities are provided for public speaking and presentations as part of the curriculum to help student grow in this area. Off-site visit opportunities to local businesses and entrepreneurs and venture capitalists are also available.