New Brunswick Public Schools

ENCORE COURSE DESCRIPTIONS

Fine, Visual Performing Arts

and

Technology Education

2016-2017

Fine Visual and Performing Arts Courses

Music

String Orchestra Course Descriptions

6th Grade String Orchestra
Full year every other day
Prerequisite: At least 1 full-year participation in 5th grade orchestra program or with teacher recommendation/audition.

Students will learn to care for, tune, and play one of the four orchestral string instruments: violin, viola, cello, or double bass. Students will be required to read and analyze the music they will be performing as well as additional selections. A wide variety of music is explored, as well as music theory, music history, and ear training. Fundamentals include proper posture, bowing, playing position, fingering, and development of characteristic tone quality and training in music literacy. Students are required to practice at home daily and to attend two evening performances.

7th Grade String Orchestra (Intermediate)
Full year every other day
Prerequisite: Successful completion of 6th Grade Orchestra or by audition
Successful completion includes performances at required concerts.
The intermediate string orchestra is for students who already have an understanding of basic music reading (without letters), instrument care and maintenance, correct playing position, and sound tone production. In addition to the basic concepts covered in Sixth Grade String Orchestra, other instrumental skills will be developed. These include vibrato, tremolo, spiccato and hooked bowing, scales and complex rhythms. Instruction includes continued focus on the refinement of tone quality, additional bowing techniques, ear training and music literacy/history. This group will perform in the evening winter and spring concerts.

8th Grade String Orchestra (Intermediate) Orchestra
Full year every other day
Prerequisite: Successful completion of 7th Grade Orchestra or by audition
Successful completion includes performances at required concerts.
The intermediate string orchestra is for students who already have an understanding of basic music reading (without letters), instrument care and maintenance, correct playing position, and sound tone production. In addition to the basic concepts covered in Seventh Grade String Orchestra, other instrumental skills will be developed. These include advanced vibrato, tremolo, spiccato, col legno and hooked bowing, major and minor scales as well as complex meters and rhythms. Instruction includes continued focus on the refinement of tone quality, additional bowing techniques, ear training and music literacy/history. Instruction concentrates on advanced technical and expressive skills (articulation, dynamics, etc.) in a motivated and focused setting. Members of this ensemble will perform in assemblies such as Hispanic Heritage and Black History Month. Evening winter and spring concerts are also mandatory.

String Ensemble (7th Advanced)
Full Year, Every other Day
Prerequisite: audition (see below)
The string ensemble is an advanced ensemble comprised of experienced student players. Based on high expectations, necessary ability, and the literature written for this medium, the Chamber Ensemble is the top-performing string group at NBMS. Instruction concentrates on advanced technical and expressive skills in solo repertoire, chamber pieces, and full ensemble variations. Membership in this group is highly selective and requirements include advanced music reading, musicianship, performing experience, and dedication. The Chamber Ensemble also prepares students for regional auditions and scholarship opportunities. This group will perform in all of the above activities plus an adjudicated festival and select school/district-related functions. Audition requirements include:

Familiarity with all 12 Major Scales, slurred (Bass: 2 octaves; Cello, Viola, Violin: 2-3 octaves where appropriate)
Advanced tuning abilities, including tuning by ear from a single pitch
Understanding of sixteenth, all dotted, and syncopated rhythms
Advanced sight-reading selections
Beginning work in higher-level lesson books (ex. Sevcik)

String Ensemble (8th Advanced)
Prerequisite: audition (see below). Full Year, Every Day
The string ensemble is an advanced ensemble comprised of experienced student players. Based on high expectations, necessary ability, and the literature written for this medium, the 8th grade String Ensemble is the top-performing string group at NBMS. Instruction concentrates on advanced technical and expressive skills in solo repertoire, chamber pieces, and full ensemble variations. Membership in this group is highly selective and requirements include advanced music reading, musicianship, performing experience, and dedication. The Chamber Ensemble also prepares students for regional auditions and scholarship opportunities. This group will perform in all of the above activities plus an adjudicated festival and select school/district-related functions. Audition requirements include:

Familiarity with all 12 Major Scales, slurred (Bass: 2 octaves; Cello, Viola, Violin: 2-3 octaves where appropriate)
Advanced tuning abilities, including tuning by ear from a single pitch
Understanding of sixteenth, all dotted, and syncopated rhythms
Advanced sight-reading selections
Beginning work in higher-level lesson books (ex. Sevcik)

Concert Band Course Descriptions

6th Grade Concert Band
Full year every other day
Prerequisite: At least 1 full-year participation in 5th grade concert band program or by audition.
Students will learn to care for, tune, and play one of concert band instruments: percussion, flute, oboe, clarinet, saxophone, bassoon, trumpet, French horn, trombone, baritone or tuba. Students will be required to read and analyze the music they will be performing as well as

additional selections. A wide variety of music is explored, as well as music theory, music history, and ear training. Fundamentals include proper posture, breathing, playing position, fingering, and development of characteristic tone quality and training in music literacy. Students are required to practice at home daily and to attend two evening performances. Students will be able to perform Grade 1-1 ½ Band music by the end of 6th grade.

7th grade (Intermediate) Concert Band
Full year every other day
Prerequisite: Successful completion of 6th grade band or by audition
Successful completion includes performances at required concerts.
In addition to the basic concepts covered in Sixth Grade Concert Band, other instrumental skills will be developed. The intermediate concert band is for students who already have an understanding of basic music reading (without letters), instrument care and maintenance, correct playing position, and sound tone production. Instruction includes continued focus on the refinement of tone quality, advanced articulation techniques, ear training and music literacy/history. This group will perform in the evening winter and spring concerts. Students will be able to perform grades 1 ½ -2 music by the end of 7th grade.

8th grade (Intermediate) Concert Band
Full year every day
Prerequisite: Successful completion of 7th grade band or by audition
Successful completion includes performances at required concerts.
Students will perform at school assemblies as well as the Winter and Spring Concerts. In addition to the basic concepts covered in Seventh Grade Concert Band, other instrumental skills will be developed. The intermediate concert band is for students who already have an understanding of basic music reading (without letters), instrument care and maintenance, correct playing position, and sound tone production. Instruction includes continued focus on the refinement of tone quality, advanced articulation techniques, ear training and music literacy/history. This group will perform in the evening winter and spring concerts. By the end of the year, students will be able to play grade 2 -21/2 music.

7th Grade (Advanced) Symphonic Band
Full year every other day
Prerequisite: Audition (see below)
The Symphonic Band is an advanced ensemble comprised of experienced student players. Based on high expectations, necessary ability, and the literature written for this medium, the Symphonic Band is the top-performing band at NBMS. Instruction concentrates on advanced technical and expressive skills in solo repertoire, chamber pieces, and full ensemble variations. Membership in this group is highly selective and requirements include advanced music reading, musicianship, performing experience, and dedication. The Symphonic Band also prepares students for regional auditions and scholarship opportunities. This group will perform in all of the above activities plus an adjudicated festival and select school/district-related functions. Audition requirements include:
      Familiarity with all 12 Major Scales (slurred eighth notes)
      Advanced tuning abilities, including tuning by ear from a chord

Understanding of sixteenth, all dotted, and syncopated rhythms
Advanced sight-reading selections
Beginning work in higher-level etude books

8th Grade (Advanced) Symphonic Band
Full year every day
Prerequisite: Audition (see below)
The Symphonic Band is an advanced ensemble comprised of experienced student players. Based on high expectations, necessary ability, and the literature written for this medium, the Symphonic Band is the top-performing band at NBMS. Instruction concentrates on advanced technical and expressive skills in solo repertoire, chamber pieces, and full ensemble variations. Membership in this group is highly selective and requirements include advanced music reading, musicianship, performing experience, and dedication. The Symphonic Band also prepares students for regional auditions and scholarship opportunities. This group will perform in all of the above activities plus an adjudicated festival and select school/district-related functions. Audition requirements include:
Familiarity with all 12 Major Scales (slurred eighth notes)
Advanced tuning abilities, including tuning by ear from a chord
Understanding of sixteenth, all dotted, and syncopated rhythms
Advanced sight-reading selections
Beginning work in higher-level etude books

Vocal Course Descriptions

6th Grade Chorale
Full year every other day
Prerequisite: Students must be willing to sing and perform in concerts
 This course is intended for students who have not performed in a chorus before. Students will learn correct techniques for singing including breath control, tone production, projection and ensemble blend. Students will learn repertoire from various musical genres. Students will begin to learn how to read music. Students will perform at various concerts throughout the year including the evening Winter and Spring concerts.

6th Grade Chorus
Full Year Every Other Day
Prerequisites - Students must be recommended by 5th grade community school teachers
Students will learn correct techniques for singing including breath control, tone production, projection and ensemble blend Students will learn repertoire from various musical genres with a focus on traditional literature. Students will begin to learn how to read music. Students will perform at various concerts throughout the year including the evening Winter and Spring concerts.

7th Grade (intermediate) Chorus
Full Year Every other day

Prerequisites - Students must have successfully completed Introduction to Chorus or Chorus 6 or Audition

Successful completion includes performances at required concerts. Students will continue development of correct vocal technique and will be expected to perform on a higher level. Students will learn repertoire from various musical genres with a focus on traditional literature. Students will perform at various concerts throughout the year including the winter concert, spring concert, and others. Students will review music literacy skills. Students will also begin to learn sight singing, tonal memory and music theory.

7th Grade (Advanced) Chamber Choir
Full Year Every Day
Prerequisites – Audition
This course is intended for students who completed Chorus 6 with a diligent work ethic, displayed advanced proficiency in performance, and who performed in the required concerts in that year. Students will continue development of correct vocal technique and will be expected to perform on an intense level. Students will learn repertoire from various musical genres with a focus on traditional literature. Students will focus on Grade 2 literature and above. Students will perform at various concerts throughout the year including the winter concert and spring concert. Students will also begin to learn sight singing, tonal memory and music theory.

8th Grade (intermediate) Chorus
Full Year Every Other Day
Prerequisites - Students must have successfully completed Chorus 7
Successful completion includes performances at required concerts. Students will continue development of correct vocal technique and will be expected to perform on a higher level. Students will learn repertoire from various musical genres with a focus on traditional literature. Students will perform at various concerts throughout the year including the winter concert, spring concert, and others. Students will review music literacy skills. Students will also begin to learn sight singing, tonal memory and music theory.

8th Grade (advanced) Chamber Choir
Every Day Full Year
Prerequisites: Audition
Students will continue development of correct vocal technique and will be expected to at the highest level.. Students will learn repertoire from various musical genres with a focus on solo pedagogy and traditional choral literature. Students will perform at various concerts throughout the year including the winter and spring concert. Students will perform Grade 2-2.5 literature. Students will continue to develop sight singing, tonal memory, aural dictation and music theory.

THEATER COURSE DESCRIPTIONS

Theatre Academy 8
Full Year Every Day
Prerequisite: Audition

This course is for students who have experience in performance and/or a strong desire to perform. Students will study voice, movement, character development, improvisation, design, directing, playwriting, and scene study. Teamwork and cooperation will be stressed, but students will be able to explore their own areas of interest while working on class productions. Memorization and performance of monologues and scenes will prepare students to study theatre in high school. There will be some homework that will include preparation for performances, memorization of scripts, and writing. Students should be willing to take creative risks, follow direction, and adapt easily. Students will be required to do at least two performances in front of an audience.

Theatre Academy 7
Full Year Every Other Day
Prerequisite: Audition
Theater Academy 7 is a course for students with a serious interest in theatre performance. Students must be focused and willing to work with all students in the class. Throughout the course of the year, students will participate in activities including pantomime, improvisation, vocal training, design, and character development. There will be some homework that will include preparation for performances, memorization of scripts, and writing. Students should be willing to take creative risks, follow direction, and adapt easily. Students will be required to do two performances in front of an audience.

Theatre Academy 6
Full Year every Other Day
Prerequisite: Approval by instructor after an interview
Theatre Academy 6 is a course for students with a strong desire to perform. Students must be focused and willing to work with all the other students in the class. Students will participate in activities including pantomime, improvisation, monologues, and scene study. Assignments will help the students develop their vocal skills, movement abilities, and confidence in front of an audience. Students should be willing to take creative risks, follow direction, and adapt easily. There will be occasional homework assignments which may involve writing, reading, or viewing theater material. Students will be required to do one performance in front of an audience.

Drama 6
½ year every other day
No prerequisite
Drama is a course in which students can explore their interest in theatre and in performance. Each student should have an open mind and be willing to use their voice and their body to its fullest potential. Students will get an overview of different aspects of theatre through activities that include pantomime, improvisation, theater history, scene study, and playwriting. Students will be required to work cooperatively in groups and pairs assigned by their teacher. Students will develop their confidence through performing in front of the class.

Drama 7
½ year every other day
No prerequisite
Drama is a course in which students can explore their interest in theatre and in performance. Each student should have an open mind and be willing to use their voice and their body to its fullest potential. Students will get an overview of different aspects of theatre through activities that include pantomime, improvisation, theater history, scene study, and playwriting. Students will be required to work cooperatively in groups and pairs assigned by their teacher. Students will develop their confidence through performing in front of the class.

Drama 8
½ year every other day
No prerequisite
Drama is a course in which students can explore their interest in theatre and in performance. Each student should have an open mind and be willing to use their voice and their body to its fullest potential. Students will get an overview of different aspects of theatre through activities that include pantomime, improvisation, theater history, scene study, and playwriting. Students will be required to work cooperatively in groups and pairs assigned by their teacher. Students will develop their confidence through performing in front of the class.

Fine Arts Course Descriptions

6th Grade Art
½ year – Every Other day- no more than 25 students
Prerequisite: None
6th Grade Art: Semester is an introductory art course that exposes students to a variety of mediums in both two and three-dimension. Students will be provided with a basic understanding of the processes of art, building upon skills and knowledge from *5th Grade art.*

6th Grade Art: ACADEMY
Full year -every other day- no more than 20 students
Prerequisite: Teacher Recommendation
6th Grade Art Academy is an accelerated introductory art course that builds upon knowledge from 5th grade art, working in a variety of mediums of both two and three-dimension. Students will be provided with a foundation for *7th Grade Art Academy.*

7th Grade Art
½ year -every other day – no more than 25 students
Prerequisite: None
7th Grade Art is a general art course that builds upon knowledge from 6th grade Art: Semester working in a variety of mediums in both two and three-dimension. Students will be provided with a comprehensive understanding of the processes of art making, building upon skills and knowledge from 6th Grade semester art or 6th Grade Academy.

<u>7th Grade Art: ACADEMY</u>
full year every other day – no more than 20 students
 Prerequisite: portfolio review or successful completion of 6th Grade Art Academy
7th Grade academy is an accelerated course that builds upon knowledge from 6th grade Academy, working in a variety of mediums in both two and three-dimension. Students will be provided with a foundation for 8th Grade Art Academy.

<u>8TH Grade Art</u>
½ year every other day – no more than 25 students in a class
Prerequisite: None
8th Grade Art Semester is a general art course that reinforces knowledge of a variety of mediums working in both two and three-dimension. Students will be provided with a comprehensive understanding of the processes of art, building upon skills and knowledge from *7th Grade Art: Semester or 7th Grade Art Academy.*

<u>8th Grade Art: ACADEMY</u>
Full Year Every **every other day**– no more than 20 students in a class
Prerequisite: portfolio review or successful completion of 7th Grade Art Academy
8th Grade Art Academy is an accelerated course that builds upon knowledge from 7th grade Academy, working of a variety of mediums in both two and three-dimension. Students will be provided with a foundation for high school level art courses.

<u>6th Grade Graphic Design:</u>
½ year every other day-no more than 24 students
Prerequisite: none
Students will begin with learning about the field of Graphic Design through various resources. Elements of Art & Design will be reviewed. Adobe Illustrator will be the first design program that the students are introduced to followed by Adobe Photoshop and lastly Adobe InDesign. Projects that build off of one another in each program will make up the content of the portfolios which will be reviewed periodically through class critiques and one on one conferences to assess work.

<u>7th Grade Graphic Design</u>
½ year every other day-no more than 24 students
Prerequisite: none
Students will continue learning more about Graphic Design and study the Elements of Art & Design more in-depth in an effort to understand what make a design successful. . Students will begin with Adobe Photoshop learning how to manipulate and edit photographs, paint and work with special effects before moving onto Adobe Illustrator and InDesign. Several projects will be completed within each program will make up the content of the student portfolio.

<u>8th Grade Graphic Design</u>
½ year every other day-no more than 24 students

Prerequisite: none
Students will expand on their learned knowledge in regards to Graphic Design with a focus on the many career opportunities available in the field of Graphic Design. Common skills and tools will be reviewed and as the semester moves forward more complex and advanced techniques will be introduced. Students will have opportunities to review and assess their work, compare techniques and projects and evaluate the work of their peers through classroom gallery walks. All projects will be included in individual portfolios which will be reviewed often.

Dance Course Descriptions

Dance: Grade 6
½ year every other day
PREREQUISITE: NONE
This dance course will introduces students to rules, procedures, etiquette and vocabulary. Students are introduced to jazz, ballet, and modern dance. Students will be introduced to improvisation and choreography. All students are required to dance barefoot (without shoes and socks).

Dance: Grade 7
½ year every other day
PREREQUISITE: NONE
This dance course will introduces students to rules, procedures, etiquette and vocabulary. Students are introduced to jazz, ballet, and modern dance. Students will be introduced to improvisation and choreography. All students are required to dance barefoot(without shoes and socks).

Dance: Grade 8
½ year every other day
PREREQUISITE: NONE
This dance course will introduces students to rules, procedures, etiquette and vocabulary. Students are introduced to jazz, ballet, and modern dance. Students will be introduced to improvisation and choreography. All students are required to dance barefoot(without shoes and socks).

Intermediate Dance: Grade 7
½ year Every other Day **Spring** Semester
PREREQUISITE: 6th and/or 7th grade Dance and audition
This course builds on skills and knowledge gained in General Dance. Students will refine learned movements and will learn movements that require additional skill in jazz, ballet, and modern dance. Students will choreograph dances that demonstrate increased skill. All students are required to dance barefoot(without shoes and socks).

Intermediate Dance: Grade 8
½ year Every other Day **Fall** Semester
PREREQUISITE: 6th and/or 7th grade Dance and audition
This course builds on skills and knowledge gained in General Dance. Students will refine learned movements and will learn movements that require additional skill in jazz, ballet, and modern dance. Students will choreograph dances that demonstrate increased skill. All students are required to dance barefoot(without shoes and socks).

Dance Academy – Grade 6
Full Year, Every Other Day
Prerequisite: Audition or Dance Power Scholar
Dance Academy is an advanced level course. Students work toward higher levels of precision and accuracy of memorized movements in ballet, modern, jazz, and world dance. Students will develop expression through movement sequences using experiences, feelings, concepts and images. Dance Academy is a full-year performance group with a higher level of expectations. All students are required to dance barefoot.

Dance Academy – Grades 7
Full Year, Every Other Day
Prerequisite: Audition
Dance Academy is an advanced level course. Students work toward higher levels of precision and accuracy of memorized movements in ballet, modern, jazz, and world dance. Students will develop expression through movement sequences using experiences, feelings, concepts and images. Dance Academy is a full-year performance group with a higher level of expectations. All students are required to dance barefoot(without shoes and socks).

Dance Academy – Grade 8
Full Year Every Day
Prerequisite: Audition
Dance Academy 8 is an advanced level course and prepares students to enter the HS Dance Program. Students work toward higher levels of precision and accuracy of memorized movements in ballet, modern, jazz, and world dance. Students will develop expression through movement sequences using experiences, feelings, concepts and images. Dance Academy is a full-year performance group with a higher level of expectations.   All students are required to dance barefoot(without shoes and socks).

TECHNOLOGY COURSE/CAREER TRACKS		
TECHNOLOGY DESIGN -- TRACK	**GRADE**	**DESCRIPTION**
Business Technology - Animation 1	6th, 7th	Prerequisite: None Half Year Every Other Day

		Business Technology - Animation Level 1 - students will become familiar with the Toon Boom animation software and demonstrate the use of various tools within Toon Boom. Students will create a character, background, and apply color to their designs using the color palette in Toon Boom. In addition to using the text tool to create titles and credits for movies.In this **Introduction to Technology** module, students gain an understanding the computer system as it relates to hardware parts on the outside versus hardware parts on the inside and how they are connected to function as single computer system.
Business Technology - Animation 2	7th	Prerequisite: Animation 1 Half Year Every Other Day **Business Technology - Animation-Level 2** students will explore working in a 3D environment in Toon Boom, and add 3D elements to their movies. Through advanced features students will explore adding color effects in Toon Boom; examine the basic animation phoneme shapes; and demonstrate how to create a lip-synced message in Toon Boom. In this **Introduction to Technology** module, students examine the basics of the Internet. Students gain an understanding of the World Wide Web, and how to access websites and web pages using the structural pipeline of the Internet while examining career opportunities in the area of computer graphic design.
Business Technology - Computer Graphic Arts	8th	Prerequisite: None Half Year Every Other Day **Business Technology - Computer Graphic Arts** students develop their understanding of computer graphic design by using the software program known as Canvas. They learn a variety of tools in Canvas to create their own graphics using different shapes, textures, and styles. As a final project, they transfer their computer graphics onto a T-shirt. In this **Introduction to Technology** module, students examine the basics of networking as it relates to the business digital age. They will develop an understanding of the purpose of a network, as well as understand the functions of different types of networks.

Business Technology - Digital Video Editing	8th	Prerequisite: None Half Year Every Other Day **Business Technology - Digital Video Editing** students learn how videos are edited to create outtake-free presentations and how audio content is dubbed into videos. They also explore educational and career opportunities in the field of video editing.
Google Education1	6th, 7th *2016-2017 We will offer this is grade 8 as well*	Prerequisite: None Half Year Every Other Day **Google Education-Level 1[Keyboarding; Docs; Blogging]-**Students learn the fundamental aspects of basic word processing. Introduction to basic knowledge of hardware and software of computer components will also be included. Students will create purposeful projects using Google Applications such as: Google Documents and Google mail, shortcuts, add on and extensions. Cross cultural collaboration will occur when students create and communicate within their own blog.
Google Education 2	7th/8th	Prerequisite: Google Education 1 Students who have had Ms. Schneider for Computer Apps can take Google 2 Half Year Every Other Day **Google Education - Level 2 [Sheets; Slides; Sites**] Students will continue to develop their knowledge and skills with Google Applications by collecting, creating and presenting accurate data information, interactive presentations and build their own websites.
Google Education 3	8th *Not Offered during 2016-2017*	Prerequisite: Google Education 1 and 2 Half Year Every Other Day **Google Education - Level 3 [Advanced Real-World Applications]-** Students will use their expert knowledge of Google Applications by developing and establishing personalized project based activities. These activities will accumulate toward a final digital portfolio that will be geared towards future technology career opportunities.
TECHNOLOGY DEVELOPER--TRACK		

Business Coding -- Level 1 -- [Prerequisite for Computer Science -- Robotics Level 1 & 2]	6th/7th/8th	Prerequisite: None Half Year Every Other Day **Business Coding -- Level 1** Student will explore the limitless inside the world of computing as they create interactive games, stories, and art that can be shared with anyone. They will use an online Code Studio Learning Platform (www.code.org)
Computer Science--Robotics 1	6th, 7th	Prerequisite: Business Coding Half Year Every Other Day *Computer Science- Robotics Level 1* This is a beginning course in robotics. Students learn how to work together as a team, build and program the amazing LEGO® Mindstorms® NXT robots. Students acquire a foundational understanding of hardware and software as it relates to Computer Science, as well as a clear understanding of the connection between the designing, building, and programming of LEGO® robots. They use their new skills to meet challenges such as getting the robots to follow a line, processing and reacting to sound, light, near and far objects. This class will also introduce programming concepts such as repetitive loops, the use of the external inputs such as touch, sound and light sensors. Logic, technology and creativity are combined to provide hours of learning fun! Students do not need to have any prior experience with Lego robotics. This course is for all six grade students, seventh grade students, and students who have not taken the course before.
Computer Science--Robotics 2	7th, 8th	Prerequisite: Robotics 1 or Business coding level 1 Half Year Every Other Day *Computer Science - Robotics Level 2* This curriculum takes the students further along the path of technological excellence by introducing new concepts in programming, design and research. Students will be involved in the programming and construction of more elaborate robots for example, a balancing Segway with rider; remote-controlled cars and a spin-art machine. They will research challenges facing today's scientists and learn critical thinking, team-building and presentation skills. They will develop a deeper understanding of robotic sensors,

		programming and applied math and science through hands-on experience with a LEGO NXT robot. Student designed robots will be programmed to compete in various challenges as developed by First Lego League. Students must have taken a Level 1 course before taking Computer Science Robotics Technology Level 2. This course is for seventh and 8th grade students who have taken **Computer Science - Robotic Level 1**
Computer Aided Design 1	6th, 7th, 8th	Prerequisite: None Half Year Every Other Day **Computer Aided Design - Level 1** Computer Aided Design is where computer software becomes a medium for creating pictorial designs. SketchUp Make is a basic software that provides a variety of virtual tools for the student to use as two-dimensional and three-dimensional objects are drawn. The first project is a two-dimensional geometric design that integrates the mathematical terms origin, circumference, quadrant, and symmetry into its construction. A global storage house called 3D Warehouse contains drawings submitted by users from all over the world, which may be added to the student's creation. Students will analyze the capabilities and limitations of the current technological resource of computer graphic software and assess the potential to address educational, career, personal, and social needs. This course is for sixth, seventh and eighth graders because it is an introduction.
Computer Aided Design 2	7th, 8th	Prerequisite: Computer Aided Design 1 Half Year Every Other Day **Computer Aided Design - Level 2** To introduce the Dream House project, interactive tutorials will be utilized to give the student the opportunity to become familiar with the tools at his own pace. Videos are viewed to provide examples of two different types of housing styles that can be drawn. Google Earth plays a part in Computer Aided Design as students find a landmark, redraw it and place it into the landscape. Floor plans, elevations, finished rooms, and landscaping will lean toward architectural design. This course is for seventh and eighth grade students who have had **Computer Aided**

		Design - Level 1.
Computer Aided Electronics	8th	Prerequisite: None Half Year Every Other Day **Computer Aided Electronics** Students will study circuitry design. Parallel and series circuits will be studied. Voltage, resistance, and current will be calculated with Ohm's Law and measured with voltage meters. Different circuits perform different functions, i.e., voltage regulation, alarm systems, timing devices. Students will use the Engineering Design Loop to experiment with their designs and to meet the design challenge of the activity. This class is for eighth grade students.

Grade 6 Technology Electives	Grade 7 Technology Electives	Grade 8 Technology Electives
Animation 1	Animation 1	Business Coding 1
Google Education 1	Animation 2	Animation 2
Business Coding 1	Google Education 1	Google Education 2
Computer Aided Design 1	Google Education 2	Computer Aided Design 2
Robotics 1	Business Coding 1	Robotics 2
	Computer Aided Design 1	Google Education 3
	Computer Aided Design 2	Computer Graphic Arts
	Robotics 1	Digital Video Editing
	Robotics 2	Computer Aided Electronics

	Sample Track for introductory Technology Students		Sample Track for students interested in a Technology Major	
	Fall	Spring	Fall	Spring

6th	Google 1	Animation 1 or CAD 1	Business Coding	Robotics 1
7th	Business Coding or Level 2's	Business Coding or Level 2's	Robotics 2	Computer Aided Design 1
8th	Google 3, Digital Video Editing	Google 3, Graphic Arts	Computer Aided Design 2	Computer Aided Electronics