

PROJECT-BASED COURSES

8th Grade STEM

This is a project-based course designed to develop and strengthen the analytical and numerical skills of 8th grade students via technology and science. Through technological projects, students will learn how systems work together to solve problems and capture opportunities.

In the 21st century, math, science, and technology are becoming more integrated, and systems are becoming more and more dependent upon each other than ever before. Electronic systems are interacting with natural bio systems as humans use more and more monitoring devices for scientific reasons. Electrical systems are interacting with mechanical and fluid power systems along with robotics as manufacturing becomes increasingly automated. This course gives students a general background on the different types of systems but concentrates more on the connections between these systems.

Units of Instruction:

- 1) Measuring: standard and metric systems
- 2) Technological Systems: How They Work
- 3) Leadership, Management and Interpersonal Skills
- 4) Technological Systems: Issues and Impacts
- 5) Technological Systems Interactions
- 6) Maintaining Technological Systems
- 7) Technological Systems and the Designed World
- 8) Space Transportation Systems and robotics via *The Lego Project*

This course is yearlong and blocked every other day for 82 minutes.



PROJECT-BASED COURSES

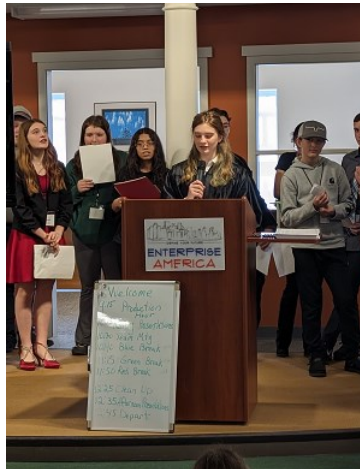
7th Grade Exploratory Courses

These project-based courses are designed to develop and strengthen the language, writing, critical thinking, and problem solving skills.

Art & Literature: Art history and the exposure to a range of artists and their use of certain mediums will be a starting point for the hands-on projects. Students will produce writing, conduct research, and create multimedia presentations in the areas of literature, music, and possible maker space projects.

Finance Skills & AgriScience: The course will focus on process skills such as: communication, leadership, thinking, and money/financial management. Students will use critical thinking skills and apply them to mathematics and science and begin to answer scientific questions. By focusing on five areas of agriculture: Animal Science, Plant Science, Environmental Science, Agricultural Mechanics, and Leadership, students will discover how careers in math and science are growing and will continue to evolve in the 21st century.

Each course is planned for 1 semester and blocked every other day for 82 minutes.



SOUTHERN CAYUGA JR/SR HIGH SCHOOL

2024-25 JR HIGH SCHOOL PROGRAM



**JR HIGH SCHOOL
STUDENTS FOLLOW A
MODIFIED BLOCK
SCHEDULE THAT
SUPPORTS PROJECT-
BASED LEARNING
ACTIVITIES**

SOUTHERN CAYUGA JR HIGH PROGRAM

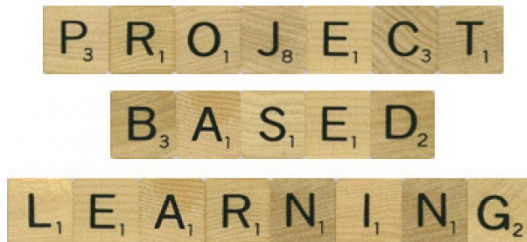
PROJECT-BASED LEARNING

What is project-based learning?

Project-based learning is an instructional model that involves students in investigations of real-life problems that culminate in authentic products. Projects that make for stronger classroom learning opportunities can vary widely in subject matter and scope, and can be delivered at a wide range of grade levels. A few defining features of project based learning:

- Projects grow out of challenging questions
- Projects put students in an active role such as: problem solver, decision maker, and investigator
- Projects serve specific, significant educational goals
- Projects can bring community businesses in as a partner to the school

**Course descriptions can be found on the reverse side of the pamphlet*



SAMPLE JR HIGH SCHEDULES

7 th Grade Schedule			
Advisory	7:40-7:53		Days
Block #1	7:55-9:19	English 7 Soc Studies 7	AC BD
Block #2	9:22-10:49	Science 7 Math 7	AC BD
Lunch	10:49-11:19		ABCD
Block #3	11:22-12:45	Explorations 7	ABCD
Period 7	12:48-1:29	Band/Chorus/SH	AC BD
Period 8	1:32-2:13	PE/Intro to Spanish/Reteach or SH	ABCD



8 th Grade Schedule			
Advisory	7:40-7:53		Days
Block #1	7:55-9:19	Spanish 1 Math 8	AC BD
Block #2	9:22-10:49	Soc Studies 8 English 8	AC BD
Lunch	10:49-11:19		ABCD
Block #3	11:22-12:45	Science 8 STEM 8	AC BD
Period 7	12:48-1:29	SH/ReTeach/PE Band/Chorus	AC BD
Period 8	1:32-2:13	ReTeach /PE/ Studio Art/ Agriculture	AC BD

OUR 7TH AND 8TH GRADE SCHEDULE

In an effort to better personalize and enhance student learning at the Jr High School (grades 7 & 8) level, we follow a modified block schedule. This schedule primarily allows us to offer most of the core area classes (Math, Sci, SS & ELA) during the morning hours.

Each day, students will begin with an advisory period from 7:40-7:53am. Our block schedule will contain many courses held for 82 minute periods, reducing the number of classes/transitions students have in a day and allowing more time for student project work.

- Students in need of extra assistance in Math & ELA will be enrolled in a re-teach class offered every other day during period 7/8.
- Jr HS students will experience a rotation of project-based courses, known as specials in the Elementary School.

