

PROGRAM ORGANIZATION

General Standards

Program Specifics	Number
Teacher Student Ratio	1:30
Student Capacity per Period/Block	30
Teachers	1
Aides	0
Grade Levels for Program	6-8
Hours per Day Space Occupied	7.5

State Facility Standards

Facility	Lab Facility <i>(square footage standards)</i>
Classroom/Lab	2280
Material Storage	90
Project Storage	310
Tool Storage/Fabrication Lab	310
Total	2,990

Volusia Variance of Standards

Facility	Lab Facility <i>(square footage standards)</i>
Classroom/Synergistic Lab	2000
Material Storage	205
Project Storage	300
Tool Storage/Fabrication Lab	365
Teacher Planning	80
Total	2,950

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VOLUSIA VARIANCE JUSTIFICATION

Facility	State Lab Facility <i>(square footage standards)</i>	Volusia Lab Facility <i>(square footage standards)</i>	Volusia Variance Justification
Classroom/Lab	2280	2000	*Reduced square footage to allow for larger storage areas and a teacher planning.
Material Storage	90	205	*See above
Project	310	300	N/A
Tool Storage/ Fabrication Lab	310	365	*See above
Teacher Planning	0	80	*See above
TOTAL			

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INFRASTRUCTURE

Items	Considerations
Heating/Cooling/Ventilation	<ul style="list-style-type: none"> ▪ Appropriate ventilation for Fabrication Center, supplies (paint, glue, etc.) Spray booth ▪ Proper cooling for Multi Media computers
Acoustical	<ul style="list-style-type: none"> ▪ Standard. Quieter between other classrooms.
Floors	<ul style="list-style-type: none"> ▪ Carpet in Lab area, VCT in classroom seating area and fabrication lab
Walls	<ul style="list-style-type: none"> ▪ 1-4 bulletin/tack boards
Ceiling	<ul style="list-style-type: none"> ▪ Ceiling mounted projector and screen for multi media teaching station
Lighting	<ul style="list-style-type: none"> ▪ Non-glare task ▪ Appropriate to computer viewing ▪ Track lighting in video broadcasting area
Windows	<ul style="list-style-type: none"> ▪ EXTERIOR: Vertical room-darkening blinds for presentations ▪ INTERIOR: Viewing windows between 1. teacher planning and classroom; 2. teacher planning and fabrication room; 3. Any side rooms students may work in during class; etc.
Doors	<ul style="list-style-type: none"> ▪ Standard
Water	<ul style="list-style-type: none"> ▪ Deep sink- Utility hot and cold water for clean up
Communications	<ul style="list-style-type: none"> ▪ 24 network jacks with Internet access, 16 in classroom/lab, 1 for multi media teaching station, 6 for back or side wall and 1 in teacher planning.
Electrical	<ul style="list-style-type: none"> ▪ NO POWER POLES dropped from ceiling into middle of classroom! All power/computer ports/outlets/Internet to come off walls. ▪ Electrical outlets to support 30 computers and peripherals- hardwire hookups for modules ▪ Various outlets throughout the lab ▪ Extra plugs at teacher workstation ▪ Power tool hookup (in Fabrication Lab) ▪ Plug for message board near ceiling (corner of lab) ▪ Extra plug outlets in storage areas
Gas and Air	<ul style="list-style-type: none"> ▪ N/A

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INFRASTRUCTURE (continued)

Safety	<ul style="list-style-type: none"> ▪ Computer wires/lines off floor and channeled through wire-management furniture ▪ Painted/Taped Safety Zone Striping (Fabrication Lab) ▪ Equipment Safety Signs ▪ Emergency Shut-off button
Fencing	N/A
Service Drive	Classroom should be located within access of a service drive for equipment delivery, etc.
Parking	N/A
Built-Ins	<ul style="list-style-type: none"> ▪ Classroom – Wall unit (4) with upper and lower locking cabinets (locks on all doors), counter for computers and “knee hole” space below counter. Book bags storage area (open) ▪ Count height- standard for computer usage ▪ Project storage area – 8 equally spaced shelves at least 5’ long by 2’ deep. ▪ Material Storage area – as many shelves as possible (cabinets w/doors & locks) ▪ Tool Room shelves
Location	<ul style="list-style-type: none"> ▪ Tech classroom/lab to be located in CTE area preferably in or near center of campus.

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FURNITURE AND EQUIPMENT

AREA	ROOM TYPE	ITEM	QUANTITY
MS Technology Education	Classroom/Lab	Bookcases, Built-In, 48"H	2
MS Technology Education	Classroom/Lab	Built-In Synergistic Computer Stations	6
MS Technology Education	Classroom/Lab	Chair - Student Task, Lab 18"/ FIXED GLIDES (no casters!)	32
MS Technology Education	Classroom/Lab	Clock	2
MS Technology Education	Classroom/Lab	Emergency Power Shutoff Button (Reset in Office)	2
MS Technology Education	Classroom/Lab	Flag w/Flag Holder	1
MS Technology Education	Classroom/Lab	Multi-Media Cart, Rolling	1
MS Technology Education	Classroom/Lab	Paper Cutter	1
MS Technology Education	Classroom/Lab	Pencil Sharpener, Electric	2
MS Technology Education	Classroom/Lab	Pencil Sharpener, Manual	2
MS Technology Education	Classroom/Lab	Podium/Lectern	1
MS Technology Education	Classroom/Lab	Stools - Adjustable Height, 24" - 30"	38
MS Technology Education	Classroom/Lab	Tables, Student, 6'x3'	9
MS Technology Education	Classroom/Lab	Tack Boards	3
MS Technology Education	Classroom/Lab	VCR/DVD Combo	1
MS Technology Education	Classroom/Lab	Wastebasket, Plastic, 28 1/8	4
MS Technology Education	Classroom/Lab	White Board, 12'	1
MS Technology Education	Fabrication Lab	Bookcase, 48" H	1
MS Technology Education	Fabrication Lab	Cabinet, Flammable Storage	1
MS Technology Education	Fabrication Lab	Drill Press	1
MS Technology Education	Fabrication Lab	Emergency Call Button	1
MS Technology Education	Fabrication Lab	Emergency Power Shutoff Button (Reset in Office)	1
MS Technology Education	Fabrication Lab	Garbage Cans, Large	2
MS Technology Education	Fabrication Lab	Goggles, Safety	40
MS Technology Education	Fabrication Lab	Rocket Launcher	1
MS Technology Education	Fabrication Lab	Safety Kit	5
MS Technology Education	Fabrication Lab	Safety Posters	1
MS Technology Education	Fabrication Lab	Sander, Table Top	2
MS Technology Education	Fabrication Lab	Saw, Band	1
MS Technology Education	Fabrication Lab	Saw, Scroll	1
MS Technology Education	Fabrication Lab	Shop Vac	1
MS Technology Education	Fabrication Lab	Tables, Square, Work, 48"x48"	2
MS Technology Education	Fabrication Lab	Vise	2
MS Technology Education	Fabrication Lab	Wall Unit, Upper/Lower Cabinets; Locking Doors; Counter; Sink	1
MS Technology Education	Teacher Planning	Bookcase, 48H	
MS Technology Education	Teacher Planning	Bookcase, 60" H	1
MS Technology Education	Teacher Planning	Chair, Reception	1
MS Technology Education	Teacher Planning	Chair, Teacher's Adjustable	1
MS Technology Education	Teacher Planning	Clock	1
MS Technology Education	Teacher Planning	Desk, Teacher's	1
MS Technology Education	Teacher Planning	File Cabinet, Legal	1
MS Technology Education	Teacher Planning	Mat, Chair	1
MS Technology Education	Teacher Planning	Pencil Sharpener, Electric	1
MS Technology Education	Teacher Planning	Pencil Sharpener, Manual	1
MS Technology Education	Teacher Planning	Tack Board	1
MS Technology Education	Teacher Planning	Wastebasket, Plastic, 28 1/8	1
MS Technology Education	Material Storage	Cabinets, Storage, Locking	2
MS Technology Education	Material Storage	Shelving Units, Built-In, Open, Adjustable	1
MS Technology Education	Project Storage	File Cabinet, Legal	1
MS Technology Education	Project Storage	Shelving Units, Built-In, Open, Adjustable	1
MS Technology Education	Video Studio	Built-In Synergistic Computer Stations	1
MS Technology Education	Video Studio	Chair - Student Task, Lab 18"/ FIXED GLIDES (no casters!)	2
MS Technology Education	Audio Studio	Built-In Synergistic Computer Stations	1
MS Technology Education	Audio Studio	Chair - Student Task, Lab 18"/ FIXED GLIDES (no casters!)	2

IMPORTANT: Items and Quantities may change as floor plan size is modified!

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FURNITURE AND EQUIPMENT (continued)

Other Synergistic Lab Components

16 Modules:

Applied Physics
 Astronomy
 Audio Broadcasting
 CADD
 Computer Graphics & Animation
 Digital Video
 Electricity
 Energy, Power & Mechanics
 Engineering Bridges
 Flight Technology
 Forces
 Plastics and Polymers
 Research & Design
 Robots
 Rocketry and Space
 Simple Machines

Other Items:

Synergy Management System
 Communication System (Enhanced Audio)
 Presentation Tools
 Spectrum Lab Management System (should also be Synergy)
 Innovator software with 16 user licenses (including Pitsco Explorer)
 Synergy Lab Installation
 CADD startup kit (3)
 Engineering Bridges startup kit (3)
 Flight Technology startup kit (3)
 Plastics and Polymers startup kit (3)
 Research & Design startup kit (3)
 Rocketry and Space startup kit (3)
 Bridge Tester (1)
 Flo-Wind Tunnel (1)
 Racetrack for CO2 dragsters

Spectrum Team Missions:

Architecture
 Automation
 Aviation
 Balloons
 Communication
 Computer Design
 Computing
 Electrifying
 Exploring
 Hang Gliding
 Illuminating
 Manipulation
 Material Testing
 Pendulums
 Processing Plastic
 Resources
 Robotics

Automation startup kit (3)
 Aviation startup kit (3)
 Balloon startup kit (3)
 Hang Gliding startup kit (3)
 Material Processing startup kit (3)
 Processing Plastic startup kit (3)

 NXT Robotics Engineering startup kit (3)
 Team Challenge set with USB cables
 Motorized Simple Machines - GS Package
 Motorized Simple Machines Sets
 Brick Layers II: Creative Engineering with LEGO Construction
 Make it Work! Machine
 The Way Things Work
 Simple Machine Poster Set
 The Simple Machine and Work (video series)
 Wall Mural

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COMPUTER HARDWARE AND SOFTWARE

AREA	ROOM TYPE	ITEM	QUANTITY
MS Technology Education	Classroom/Lab	Computers - Multi-Media, Student Stations, Internet Ready/DVD-RW	14
MS Technology Education	Classroom/Lab	Computer - Multi-Media, Teacher Presentation Station, Internet Ready/DVD-RW	1
MS Technology Education	Classroom/Lab	Overhead Projection System - LCD/Elmo	1
MS Technology Education	Classroom/Lab	Printer, Network, B/W	1
MS Technology Education	Classroom/Lab	Projector, Ceiling Mount	1
MS Technology Education	Classroom/Lab	Screen - Ceiling Mount, Retractable	1
MS Technology Education	Teacher Planning	Computer - Multi-Media, Teacher Station, Internet Ready/DVD-RW	1
MS Technology Education	Teacher Planning	Printer - Stand Alone; Color Ink Jet	1
MS Technology Education	Teacher Planning	Telephone	1
MS Technology Education	Video Room	Computer - Multi-Media, Student Stations, Internet Ready/DVD-RW	1
MS Technology Education	Audio Room	Computer - Multi-Media, Student Stations, Internet Ready/DVD-RW	1

IMPORTANT: Please contact Dan Cox, Technology Education Specialist, for *Synergistic Lab* specific software at 386-255-6475 x60216.

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FLOOR PLAN

NO POWER POLES. All power, data ports, internet to come from the walls.

Please contact Kristin B. Pierce at x60180 for an AutoCAD drawing.

