Name:	Grading Quarter:	Week Beginning:
Robert Lefrandt	1	08/26/2024
School Year: 2024-25	Subject: Fab Lab/Engi	ineering

Monday	Notes: Robotic Assemblie Mechtron
	Engineer: ReEngineer Reverse Engineerir Structural Chassis frame bod Mechanica (Motion) Gear: Box, train, parallel (linear) stack (vertical), ratio, torque speed
	Mechtron
	Electrical Ohm's Lav Parallel/Se al Circuits) Chemical e-chem Physical Magnetism Batteries Software
	Block PLC ladder logic, CNC Python, C- Sensors touch, Dis

igineer: Engineer verse gineering ructural assis ame body echanical 1otion) ear: Box, ain, rallel near) ack ertical),

echtronic

ectrical (nm's Law, rallel/Seri Circuits) emical chem ysical agnetism tteries

ock .C ladder gic, CNC, thon, C++ nsors uch, Dist Light,

Camera

No School

Fab Lab/Engineering

Objective:

The Fab Lab/Engineering instructional program prepares students to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects.

Lesson Overview:

Students learn to apply Science Technology Engineering Math (STEM) concepts to current technologies and tools as they learn about the different disciplines and opportunities within the fields of engineering.

Blueprint for Instruction and Assessment

Engineering Math and Science Principles, Tools, Project Management, Address Needs in Global Society

Academic Standards:

Arizona Department of Education Website:

Program Description/ Industry Credentials/ Coherent Sequence/

https://www .azed.gov/cte /es/

T	Notes:	Fab Lab/Engineering	Academic
Tuesday	Robotic		Standards:
дау	Assemblies	Objective:	
	Mechtronic	The Fab Lab/Engineering instructional program prepares students to	Arizona
	Engineer:	apply basic engineering principles and technical skills in support of	Department
	ReEngineer	engineers engaged in a wide variety of projects.	of
	Reverse	Lesson Overview:	Education
	Engineering		Website:
	Structural	Students learn to apply Science Technology Engineering Math (STEM)	D
	Chassis	concepts to current technologies and tools as they learn about the	Program
	frame body	different disciplines and opportunities within the fields of engineering.	Description/
	Mechanical		Industry Credentials/
	(Motion)	Blueprint for Instruction and Assessment	Coherent
	Gear: Box,	Engineering Math and Science Principles, Tools, Project Management,	Sequence/
	train,	Address Needs in Global Society	Sequence/
	parallel		https://www
	(linear)		.azed.gov/cte
	stack		/es/
	(vertical),		
	ratio,		Notes Conti:
	torque		PhysComp
	speed		Embedded
	Mechtronic		smart, IIOT
			Al ,Data
	Electrical (Collect Data
	Ohm's Law,		Analyze Data
	Parallel/Seri		MachinLearn
	al Circuits)		Collaborate
	Chemical		schools,
	e-chem		
	Physical		Industry
	Magnetism		Community
	Batteries		
	Software		
	Plack		
	Block		
	PLC ladder		
	logic, CNC,		
	Python, C++		
	Sensors		
	touch, Dist		
	Light,		
	Camera		

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	We	Notes:	Fab Lab/Engineering
	ďn	Robotic	Objectives
	Wednesday	Assemblies	Objective:
	lay	Mechtronic	The Fab Lab/Engineering instructional program prepares students to
		Engineer:	apply basic engineering principles and technical skills in support of
		ReEngineer	engineers engaged in a wide variety of projects.
		Reverse	Lesson Overview:
		Engineering	
		Structural	Students learn to apply Science Technology Engineering Math (STEM)
		Chassis	concepts to current technologies and tools as they learn about the
		frame body	different disciplines and opportunities within the fields of engineering.
		Mechanical	
		(Motion)	Blueprint for Instruction and Assessment
		Gear: Box,	Engineering Math and Science Principles, Tools, Project Management,
		train,	Address Needs in Global Society
		parallel	, , , , , , , , , , , , , , , , , , ,
		(linear)	
		stack	
		(vertical),	
		ratio,	
		torque	
		speed	
		Mechtronic	
		Electrical (
		Ohm's Law,	
		Parallel/Seri	
		al Circuits)	
		Chemical	
		e-chem	
		Physical	
		Magnetism	
		Batteries	
		Software	
		Block	
		PLC ladder	
		logic, CNC,	
		Python, C++	
		Sensors	
		touch, Dist	
		Light,	
		Camera	
		Camera	

Academic Standards:

Arizona

of

Department

Education Website:

Program
Description/

Industry Credentials/ Coherent

Sequence/

https://www .azed.gov/cte

Notes Conti:
PhysComp
Embedded
smart, IIOT
AI ,Data
Collect Data
Analyze Data
MachinLearn
Collaborate
schools,

Industry Community

/es/

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Ţ	Notes:	Fab Lab/Engineering	Academic
Thursday	Engineer	Objectives	Standards:
зау	Engineer: ReEngineer	Objective: The Fab Lab/Engineering instructional program prepares students to	Arizona
	Reverse	apply basic engineering principles and technical skills in support of	Department
	Engineering	engineers engaged in a wide variety of projects.	of
	Structural		Education
	Chassis	Lesson Overview:	Website:
	frame body	Students learn to apply Science Technology Engineering Math (STEM)	
	Mechanical (Motion)	concepts to current technologies and tools as they learn about the	Program
	Gear: Box,	different disciplines and opportunities within the fields of engineering.	Description/
	train,		Industry Credentials/
	parallel	Blueprint for Instruction and Assessment	Coherent
	(linear)	Engineering Math and Science Principles, Tools, Project Management,	Sequence/
	stack	Address Needs in Global Society	ocquerice,
	(vertical),		https://www
	ratio,		.azed.gov/cte
	torque		<u>/es/</u>
	speed		https://www.
	Mechtronic		https://www .azed.gov/cte
			/es/
	Electrical (
	Ohm's Law,		Notes Conti:
	Parallel/Seri		PhysComp
	al Circuits)		Embedded
	Chemical		smart, IIOT
	e-chem		Al ,Data
	Physical		Collect Data
	Magnetism		Analyze Data
	Batteries		MachinLearn
	Software		Collaborate
	Block		schools,
	PLC ladder		Industry
	logic, CNC,		Community
	Python, C++		
	Sensors		
	touch, Dist		
	Light,		
	Camera		

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Friday	Notes:	Fab Lab/Engineering	Academic Standards:
lay	Engineer:	Objective:	Stariual US.
	ReEngineer	The Fab Lab/Engineering instructional program prepares students to	Arizona
	Reverse	apply basic engineering principles and technical skills in support of	Department
	Engineering	engineers engaged in a wide variety of projects.	of
	Structural	Lesson Overview:	Education
	Chassis frame body		Website:
	Mechanical	Students learn to apply Science Technology Engineering Math (STEM)	D
	(Motion)	concepts to current technologies and tools as they learn about the	Program
	Gear: Box,	different disciplines and opportunities within the fields of engineering.	Description/ Industry
	train,		Credentials/
	parallel	Blueprint for Instruction and Assessment	Coherent
	(linear)	Engineering Math and Science Principles, Tools, Project Management,	Sequence/
	stack	Address Needs in Global Society	
	(vertical),		https://www
	ratio,		.azed.gov/cte
	torque		/es/
	speed		
	Mechtronic		Notes Conti:
	Electrical (PhysComp
	Ohm's Law,		Embedded
	Parallel/Seri		smart, IIOT
	al Circuits)		Al ,Data
	Chemical		Collect Data
	e-chem		Analyze Data MachinLearn
	Physical		
	Magnetism		Collaborate schools,
	Batteries		30110013,
	Software		Industry
	Block		Community
	PLC ladder		
	logic, CNC,		
	Python, C++		
	Sensors		
	touch, Dist		
	Light,		
	Camera		