MR. FLORES		Career Portals/Technology	AUG 27-31
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
Orientation to Career Portals Technology		Welcome students, explain Class Rules, Tour Classroom.	
Tuesday			
Orientation to Career Portals Technology		1. Warm-up: "Get to know Me" Worksheet "About me" Teacher Presentation Course Overview Class Safety Form/Contract	Group Discussion Teacher Observation
Wednesday			
Students will learn the importance of respect, teamwork and collaboration through engineering challenges.	130.362 Concepts of Engineering & Technology	1. Warm-up: Team-Building Questions and discussion; **2. Engineering Challenge #1** (Marshmallow Challenge): Team Building Activity, assign teams of 3-5 (Materials: Pasta, masking tape, string, marshmallow, scissors, activity PPT instructions)	Group Discussion Teacher Observation
Thursday			
Students will learn the importance of respect, teamwork and collaboration through engineering challenges.	130.362 Concepts of Engineering & Technology	1. Warm-up: (Journal) - (1) List all 5 class rules? (2) What will you do to be successful this year. 2. Review Emergency Procedures (fire/lockdown) **3. Engineering Challenge #2** . (Solo Cup Challenge) - 5 Cups, 4 Index Cards (4x6)	Group Discussion Teacher Observation
Friday			
Students will learn the importance of respect, teamwork and collaboration through engineering challenges.	130.362 Concepts of Engineering & Technology	1. Warm-up: (Journal) - (1) What do you think of when you hear the word Technology? (2) Name 10 things you consider to be technology? 2. Show short Video/Discuss. **3. Engineering Challenge #3** . (Solo Cup Challenge) - 6 cups, 4 pieces of string/rope (2' ea), 1 rubber band. Stack, unstack as a team by working together.	Group Discussion Teacher Observation

MR. FLORES		Career Portals/Technology	SEP 3 - SEP 7
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
		LABOR DAY	
Tuesday			
Intro to Safety: Students will learn the importance of Safety.	130.49 Construction Management, 10a-d, 11a-c, 13c	1. Warm-up Teamwork Word Search; 2. Safety Review using "Quizizz"- Pre-assess; 3. Safety Talk/Discussion (pass out safety test questions)	Group Discussion Teacher Observation Pre-assessment
Wednesday			
Students will learn the importance of Safety.	130.49 Construction Management, 10a-d, 11a-c, 13c	1. Warm-up: Journal Questions - Name 5 Safety Rules that apply to our class; 2. Begin Safety Group Poster	Group Discussion Teacher Observation
Thursday			
Students will learn the importance of Safety.	130.49 Construction Management, 10a-d, 11a-c, 13c	1. Warm-up: Journal Questions; 2. Independent & Group safety review; 3. Continue Safety Poster Project.	Group Discussion Teacher Observation
Friday			
Students will learn the importance of Safety.	130.49 Construction Management, 10a-d, 11a-c, 13c	1. Administer General Safety Test; 2. Complete Safety Poster	Formative Assessment Teacher Observation
		Re-test students who did not get a 100% on Safety Test or were absent.	Formative Assessment

MR. FLORES		Career Portals/Technology	SEP 10 - SEP 14
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
Intro to Measurements: Students will learn the importance of Measurements	130.49 Construction Management, 10a-d, 11a-c, 13c	1. Warm-up Journal Questions; 2. Measurement Talk; 3. Kahoot! Measurment Pre-assessment "Measuring in Inches & Feet" (Game 1)	Group Discussion Teacher Observation Pre-assessment
		Re-test students who did not get a 100% on Safety Test or were absent.	Formative Assessment
Tuesday			
Intro to Measurements: Students will learn the importance of Measurements	130.362, 6d; 130.42, 1a-d; 130.49, 35c; 18a-d; CCRS; IV	1. Warm-up: Journal Questions; 2. **Video**: "How to Read an Inch Ruler or Tape Measure" 3. **Kahoot** Pre-Assessment: "Measuring with a Ruler: Inches, 1/4 inch, 1/2 inch, 1/8 inch".	Group Discussion Teacher Observation Pre-Assessment
Wednesday			
Intro to Measurements: Students will learn the importance of Measurements	130.362, 6d; 130.42, 1a-d; 130.49, 35c; 18a-d; CCRS; IV	1. Warm-up: Journal Questions; 2. Measurement Video; 3. PPT on Reading the Ruler to 16ths 4. Worksheets: Measuring 1/2 & 1/4, Reading 8ths and 16ths	Group Discussion Teacher Observation
Thursday			
Intro to Measurements: Students will learn the importance of Measurements	130.362, 6d; 130.42, 1a-d; 130.49, 35c; 18a-d; CCRS; IV	1. Warm-up: Journal Questions; 2. Measuring Things Around Us Activity (partner up): Measure your table, Door, Window, Rules Poster, Perimeter of classroom, Cabinet Door, Sink, Back Workbench, 1 floor tile, Technology Textbook	Group Discussion Teacher Observation
Friday			
Intro to Measurements: Students will learn the importance of Measurements	130.362, 6d; 130.42, 1a-d; 130.49, 35c; 18a-d; CCRS; IV	1. Warm-up: Journal Questions; 2. Measurements Test Review; 3. Give Measurements Test 4. Google Classroom Sign-up	Group Discussion Formative Assessment

MR. FLORES		Career Portals/Technology	SEP 17 - 21
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
Introduction: PITSCO Education Modular units and Methodologies. Students will learn about PITSCO and what is expected of them during their rotation.	**130.362 Concepts of Engineering and Technology 6a-e; 10a-e. 130.370. Robotics and Automation 2a-c; 5a-d; 6c-d; 130.42. Principles of Architecture and Construction; 111.23 Math Grade 7, 2b-c, 4a, 7a, 8abc, 13 CCRS; X Connections; A; B; I; VIII. Physics; C Forces and Motion; 130.49 Construction Management; D Mechanical Energy**	Day 0 - Pitsco Education 1. Assign PITSCO folders to students; 2. Review rotation process; 3. Complete Inventory; 4. Confirm Student Logins	Group Discussion Teacher Observation
Tuesday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 1 - Pitsco Education (Orientation)	Group Discussion Teacher Observation Pre-assessment
Wednesday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 2 - Pitsco Education (Orientation)	Teacher Observation Modular Assessment
Thursday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 3 - Pitsco Education (Orientation)	Teacher Observation Group Discussion
Friday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 4 - Pitsco Education (Orientation)	Teacher Observation Group Discussion

MR. FLORES		Career Portals/Technology	SEP 24 - 28
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 5 - Pitsco Education (Orientation)	Teacher Observation Modular Assessment
Tuesday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 6 - Pitsco Education (Orientation)	Teacher Observation Modular Assessment
Wednesday			
Introduction modular units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 7 - Pitsco Education (Orientation) * Kahoot! **"PITSCO Orientation Module Assessment"**	Teacher Observation Modular Assessment
Thursday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 1 - PITSCO (Rotation 1) Session 1	Group Discussion Modular Assessment
Friday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 2 - PITSCO (Rotation 1) Session 2	Group Discussion Modular Assessment

MR. FLORES		Career Portals/Technology	OCT 1 - OCT 5
Objectives	***TEKS***	***Activities, Procedures, Materials***	***Evaluation***
Monday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 3 - PITSCO (Rotation 1) Session 3	Group Discussion Modular Assessment
Tuesday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 4 - PITSCO (Rotation 1) Session 4	Group Discussion Modular Assessment
Wednesday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 5 - PITSCO (Rotation 1) Session 5	Group Discussion Modular Assessment
Thursday			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 6 - PITSCO (Rotation 1) Session 6	Group Discussion Modular Assessment
Friday (End of 1st - 6 Weeks)			
Modular Units	130.42; 130.362 6a-e;10a-e; 130.370. 2a-c; 5a-d; 6c-d; 111.23, 2b-c, 4a, 7a, 8abc, 13 CCRS; X; A; B; I; VIII; C; 130.49; D	Day 7 - PITSCO (Rotation 1) Session 7	Group Discussion Modular Assessment
		END OF 1st SIX WEEKS	

PITSCO Education Modules Objectives and Activities			
Module	**Overview**	**Objectives**	**Activities**
Engineering Bridges	In Engineering Bridges, students solve an engineering problem as a team. Their task is to build a balsa wood bridge that will span a space and hold the most weight before breaking. There are certain rules that the students must follow to build their bridges correctly. Students learn the relationships among design, structure, and strength of a bridge. By building a bridge and testing its strength on a structure tester, students learn valuable engineering concepts and principles.	Use a worksheet to illustrate a bridge design and manufacture structural members. Assemble a bridge according to the design. Test the finished bridge on a testing device. Convert designs to full-size patterns. Learn about the forces that act upon a structure. Learn about the arch bridge and the cantilever bridge.	Students complete three performance assessments: 1) Designing Your Bridge – create three thumbnail sketches of possible bridge designs, choose a design, defend why a bridge design was chosen, and draw a full-size pattern of the selected thumbnail sketch; 2) Bridge Construction – demonstrate the proper use of the Timber Cutter and begin cutting pieces for bridges; and 3) Final Assembly – meet the bridge-building specifications and complete the bridges.
Simple Machines	In Simple Machines, students explore how work, force, energy, and machines make moving objects easier through the use of the computer and hands-on activities. Students use variables and equations to describe the principles of simple machines. Students use the information they learn about simple machines to design a compound machine that moves an object.	• Explore how simple machines are used to convert small input force to large output force. • Use the scientific method to determine the mechanical advantage of simple machines. • Perform experiments. • Design and create a compound machine that moves an object. • Identify patterns and investigate relationships to determine mechanical advantage.	Students complete three performance assessments: 1) Inclined Planes – calculate the length of an inclined plane and the mechanical advantage; 2) Levers – explain how levers make work easier and demonstrate and explain how to use a lever to lift a five-newton weight with less than five newtons of force; and 3) Compound Pulleys – explain the relationship between the mechanical advantage of a pulley system and the number of pulleys.
Energy Power & Mechanics	When students complete Energy, Power & Mechanics, they have a basic understanding of energy sources, the principles of power technology, and the concept of mechanical advantage and machines. Students see how fluids can be used with other simple machines. Using educational instruments, students learn the fundamentals of gears, fluid mechanics, and three classes of levers. Students also use a solar hot dog cooker and experience the concept of wind power.	Understand the concepts of gears and gear ratios. Demonstrate knowledge of the three classes of levers by completing a hands-on activity. Discover the functions and potential uses for pneumatics, hydraulics, and gears. View video segments on energy, work, and the future. Witness an alternative use of the Sun's energy by operating a solar cooker. Control energy by adjusting the flow of air pressure. Differentiate between renewable and nonrenewable energy sources.	Students complete three performance assessments: 1) Wind Energy – set up equipment, enter data into the computer, and defend conclusions about blade angles based on their data; 2) Levers – set up an educational instrument, enter data on-screen, and give examples of the three classes of levers; and 3) Fluid Systems – describe a pump using a cylinder and valves and demonstrate proper connections.

Flight Technology	In Flight Technology, students learn the principles of flight. Students use a computer flight simulator to experience piloting an aircraft. Each student evaluates the other and prepares a written critique of his or her partner's flight. Students are introduced to navigation and plot a course using angular measurement and mathematical computation.	Explore the basic principles of aerodynamics by operating a flight simulator. Design and construct an airfoil. Observe and understand Bernoulli's principle by using a wing tester device. Produce and measure lift on an airfoil. Use a navigation plotter to determine the direction and distance for a flight plan. Use flight simulator software to test determined calculations. Use computer software to examine the factors that change the value of lift.	Students complete three performance assessments: 1) Basic Aerodynamics – identify Bernoulli's principle and the effect of velocity on pressure and the effects and factors of stall, force, and lift of an airfoil; 2) Wing Testing – design, build, and test a wing using a wing tester; and 3) Navigation – demonstrate an understanding of how to calculate distance in nautical and statute miles and identify necessary tools during a flight.
Computer Graphics & Animation	In Computer Graphics & Animation, students learn how the use of computers can enhance products created by professional artists and animators. With the use of a computer and related software, students produce an animated sequence using bendable cartoon figures. Students use a digital camera to capture a picture and create an animated project. Students also explore 3-D animation and create an animated 3-D movie.	Explore the process of graphic design. Complete a portfolio of projects by utilizing multiple software applications. Create and produce animated sequences by using computer software. Capture an image with a digital camera and manipulate the picture with morphing software. Animate a 3-D scene containing several objects and a 3-D logo.	Students complete three performance assessments: 1) Basic Animation – define animation and give examples of how animation is used and illustrate the three planes used in moving and aligning objects in the working box; 2) Using Modifiers – explain the process for applying a modifier to add movement to an animation and animate an object within animation software; and 3) Basic 3-D – explain how a 2-D surface can achieve the appearance of being 3-D and create and animate a 3-D text logo.
Video Production	In Video Production, students learn many facets of video production and communication. Students explore the working of a video camera, the editing process, and Federal Communications Commission regulations. They organize ideas, write scripts, outline a storyboard, shoot video, and edit their video productions. Students also study the effect of media in their own lives and use this information to produce a persuasive public service announcement.	Examine electronic mass communication and its role in today's society. Identify various types of video and film productions. Demonstrate knowledge of storyboarding and effective script writing. Learn the difference between analog editing and digital editing. Examine different types of video productions. Learn about public service announcements. Write a storyboard and then videotape and edit a public service announcement. Explore communication technology.	Students complete three performance assessments: 1) News Brief – write a news brief about a current event; record, edit, and export the news brief; 2) Record/Edit PSA – describe how public service announcements differ from other forms of video production; record and edit digital elements to create a final PSA video; and 3) Video Production – explain the differences between analog and digital editing and merge video clips to create a final production.

Electricity	In Electricity, students learn the principles of electricity and draw a schematic of a parallel and a series circuit. Students complete a series and a parallel circuit as well as classify conductors and insulators. They use a voltage and ohm meter, and they identify the magnetic fields important to the concept of electricity. Students also measure voltage, resistance, and current during Electricity activities.	Draw a schematic diagram of a series and parallel circuit. Discover the relationship between the electricalunits of voltage, current, and resistance. Demonstrate knowledge of electrical circuits. Classify samples of electrical conductors and insulators. Explore the concepts of electricity and magnetism. Observe the strength and direction of magnetic lines of force.	Students complete three performance assessments: 1) Electricity Basics – demonstrate and define the term circuit and draw and assemble a circuit; 2) Series and Parallel Circuits – wire a motor circuit, explain the use of an on/off switch, and wire and reverse a DC motor using a knife switch; and 3) Measuring Resistance – demonstrate the proper care of a multimeter (VOM) and identify and explain insulators and conductors.
Light & Lasers	In Light & Lasers, students explore aspects of light and lasers and see how that technology can be used. Students use geometric concepts to divide and reflect a laser beam along a path and to create a security system utilizing the beam. Light is explored and manipulated through experiments that use lenses, prisms, filters, and intensity meters. The data from these experiments is analyzed and interpreted to provide a clear picture of the nature of light.	Divide and reflect laser beams in desired paths using geometric concepts. Gather, analyze, and interpret data from experiments about the properties of light. Use algebraic concepts to perform calculations based on experimental data. Explore various properties including reflection, color, and intensity of light. Explore refraction of light. Use geometric concepts to predict reflected paths. Examine the effects of a prism on white light and laser light. Determine the magnification levels of various lenses. Determine the effects of distance and color on intensity.	Students complete three performance assessments: 1) Reflection – explain the relationship between the angle of incidence and the angle of reflection; 2) Magnification – describe the magnification properties of a convex lens and a concave lens; and 3) Intensity – explain what determines the color and intensity of light and explain why a color paddle decreases the intensity of the light passing through it.