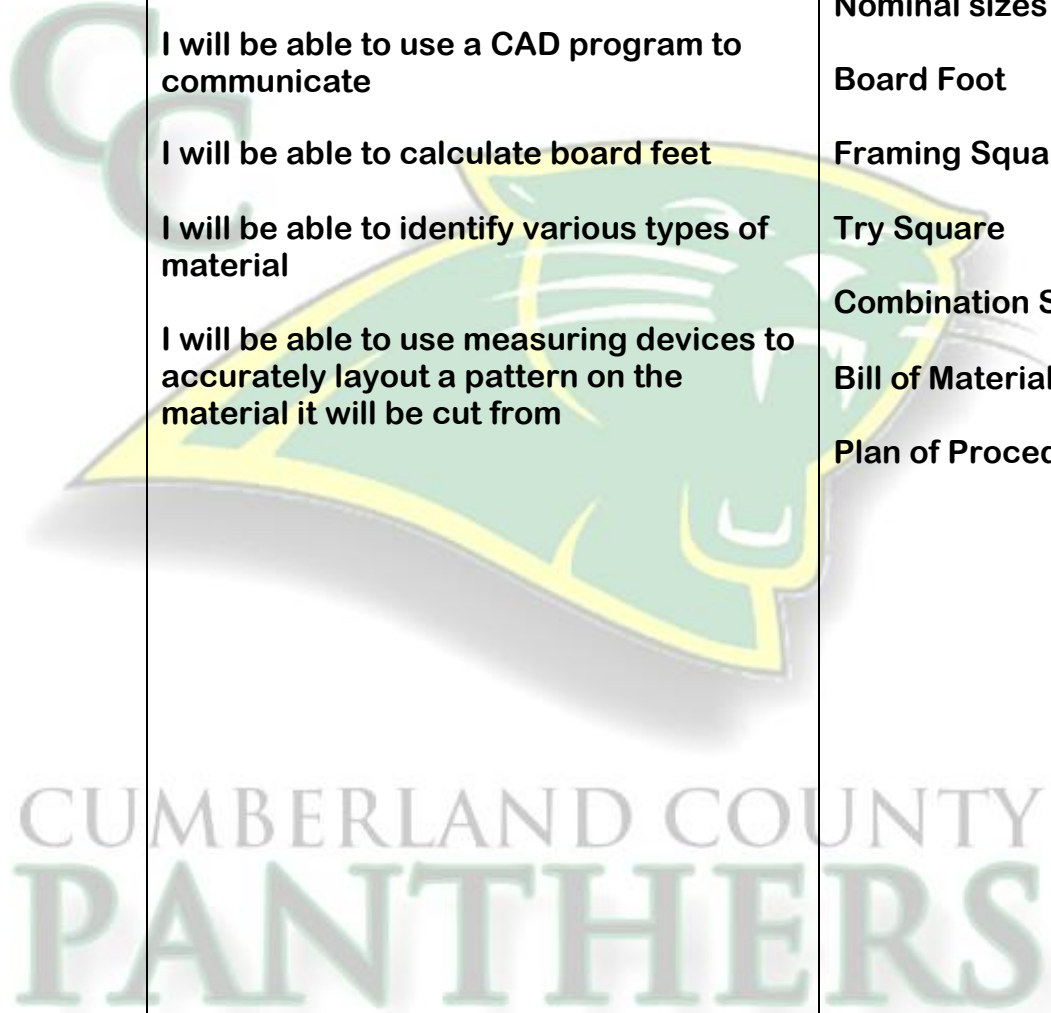


**CUMBERLAND COUNTY SCHOOL DISTRICT  
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: CCHS	Subject: Engineering Design	Grade: 10 -12
<i>Benchmark Assessment 1</i>		
Instructional Timeline: 1st 9 Weeks		
Topic(s): Planning and Design		
KOSSA Engineering & Design Standards	Learning Targets (I Can Statements)	Key Vocabulary
<b>OH – Attributes of Design, the Design Process</b>  <b>OQ 5 – Many ways of Communicating</b>  <b>AD 1- Perform basic and higher level math operations</b>  <b>AD 2 – Solve problems using measurement skills</b>  <b>OS – Manufacturing Technologies - Materials</b>	<b>I will be able to identify the steps in the design process</b>	<b>Drawing Board</b>
	<b>I will be able to measure to 1/16" accuracy</b>	<b>T-Square</b>
	<b>I will be able to use manual drafting equipment to communicate</b>	<b>Architect's Scale</b>
	<b>I will be able to identify the lines in the alphabet of lines</b>	<b>30-60 and 45 degree Triangles</b>
	<b>I will be able to make an orthographic drawing to represent an object to 1/16" accuracy</b>	<b>Hidden line</b>
	<b>I will be able to identify 3 types of pictorial drawings</b>	<b>Visible line</b>
	<b>I will be able to make an isometric drawing to represent an object to 1/16" accuracy</b>	<b>Dimension line</b>
<b>I will be able to make an oblique drawing to represent an object to 1/16"</b>	<b>Orthographic Drawing</b>	
		<b>Pictorial Drawing</b>
		<b>Isometric</b>
		<b>Oblique</b>
		<b>Perspective</b>
		<b>CAD</b>

	<p><b>I will be able to make a perspective drawing to represent an object</b></p> <p><b>I will be able to use a CAD program to communicate</b></p> <p><b>I will be able to calculate board feet</b></p> <p><b>I will be able to identify various types of material</b></p> <p><b>I will be able to use measuring devices to accurately layout a pattern on the material it will be cut from</b></p>	<p><b>Random Widths and Lengths</b></p> <p><b>Nominal sizes</b></p> <p><b>Board Foot</b></p> <p><b>Framing Square</b></p> <p><b>Try Square</b></p> <p><b>Combination Square</b></p> <p><b>Bill of Materials</b></p> <p><b>Plan of Procedure</b></p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



**CUMBERLAND COUNTY SCHOOL DISTRICT  
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: CCHS	Subject: Engineering Design	Grade: 10 -12
<i>Benchmark Assessment 2</i>		
Instructional Timeline: 2nd 9 Weeks		
Topic(s): Safety		
<b>KOSSA Engineering &amp; Design Standards</b>	<b>Learning Targets (I Can Statements)</b>	<b>Key Vocabulary</b>
<b>EN – Health and Safety</b>  <b>EN 1 – Assume responsibility for safety of self and others</b>  <b>EN 2 – Follow safety guidelines in the workplace</b>  <b>OB 5 – Core concepts of Technology - Processes</b>	<b>I will be able to follow the general safety guidelines in the shop</b>  <b>I will be able to use hand tools safely</b>  <b>I will be able to operate portable power tools safely</b>  <b>I will be able to operate a chop saw safely</b>  <b>I will be able to operate a jointer safely</b>  <b>I will be able to operate a planer</b>  <b>I will be able to operate a bandsaw safely</b>  <b>I will be able to operate a drill press safely</b>  <b>I will be able to operate a table saw safely</b>	<b>Margin of Safety</b> <b>Fence</b> <b>Rough Length</b> <b>Finish Length</b> <b>Miter Gauge</b> <b>Cutterhead</b> <b>Depth of Cut</b> <b>With the grain</b> <b>Rip Cut</b> <b>Cross Cut</b> <b>In feed Roller</b> <b>Outfeed Roller</b> <b>Pressure Bar</b> <b>Chip breaker</b> <b>Faceplate Turning</b> <b>Spindle turning</b> <b>Chisel</b> <b>Tool Rest</b> <b>Bar Clamp</b> <b>Parallel Clamp</b> <b>Vise</b> <b>Dado Blade</b>

	<p><b>I will be able to operate a lathe safely</b></p> <p><b>I will be able to dress and square rough lumber</b></p> <p><b>I will be able to glue material for thickness and width</b></p>	
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--



CUMBERLAND COUNTY  
**PANTHERS**

**CUMBERLAND COUNTY SCHOOL DISTRICT  
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: CCHS	Subject: Engineering Design	Grade: 10 -12
<i>Benchmark Assessment 3</i>		
Instructional Timeline: 3rd 9 Weeks		
Topic(s): Manufacturing Careers and Employability Skills		
KOSSA Engineering & Design Standards	Learning Targets (I Can Statements)	Key Vocabulary
<b>EK – Job Acquisition and Advancement</b>  <b>EK 1 – Recognizes the importance of maintain a job and pursuing a career</b>  <b>EK 2 - Define jobs associated with a specific career path or profession</b>  <b>EA - Positive work ethic</b>  <b>EB – Integrity</b>  <b>EC – Self Representation</b>  <b>EF - Teamwork</b>	<b>I will be able to use various resources to find the educational requirements, working conditions, salary, and job outlook for a career</b>  <b>I will be able to do a “reality check” to see what expenses are incurred by an adult living alone or raising a family</b>  <b>I will be able to identify manufacturing careers and jobs related to the career of my choice</b>  <b>I will be able to demonstrate enthusiasm and confidence about work and learning new tasks</b>  <b>I will be able to demonstrate consistent and punctual attendance</b>  <b>I will be able to demonstrate initiative in assuming tasks</b>	<b>Occupational Outlook Handbook</b> <b>Job search</b> <b>Career</b> <b>Job</b> <b>Salary</b> <b>Hourly wage</b> <b>Minimum wage</b> <b>Goals</b> <b>Values</b> <b>Apprentice</b> <b>Educational requirements</b> <b>Manufacturing processes</b> <b>Design</b> <b>Quality Control</b> <b>Research and Development</b> <b>Initiative</b> <b>Integrity</b> <b>Trust</b> <b>Predictable</b> <b>Reliable</b> <b>Organized</b> <b>Leadership</b> <b>Attitude</b>

	<p><b>I will be able to exhibit dependability in the workplace</b></p> <p><b>I will be able to take and provide direction in the workplace</b></p> <p><b>I will be able to demonstrate honesty and reliability</b></p> <p><b>I will be able to use language and manners suitable for the workplace</b></p> <p><b>I will be able to demonstrate polite and respectful behavior toward others</b></p> <p><b>I will be able to demonstrate personal accountability in the workplace</b></p> <p><b>I will be able to demonstrate pride in work</b></p> <p><b>I will be able to work with minimal supervision</b></p>	<p><b>Professionalism</b></p> <p><b>Positive Attitude</b></p> <p><b>Fairness</b></p> <p><b>Respect</b></p> <p><b>Diversity</b></p> <p><b>Flexibility</b></p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------



**CUMBERLAND COUNTY SCHOOL DISTRICT  
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: CCHS	Subject: Engineering Design	Grade: 10 -12
<i>Benchmark Assessment 4</i>		
Instructional Timeline: 4th 9 Weeks		
Topic(s): Mass Production		
<b>KOSSA Engineering &amp; Design Standards</b>	<b>Learning Targets (I Can Statements)</b>	<b>Key Vocabulary</b>
<b>OS – Manufacturing technologies</b>  <b>OS 4 – Manufacturing systems</b>  <b>OS 5 - Interchangeability of parts</b>  <b>EA - Positive work ethic</b>  <b>EB – Integrity</b>  <b>ED – Time, Task, and Resource Management</b>  <b>EF – Teamwork</b>  <b>AD 2 – Solve problems using measurement skills</b>  <b>AD 3 – Make reasonable estimates</b>	<b>I will be able to select a mass production product, design it, calculate the cost of materials, and develop a plan of procedure to produce it</b>  <b>I will be able to construct the required jigs, fixtures, and templates to produce my groups mass production product</b>  <b>I will be able to operate equipment safely to produce our groups mass production product</b>  <b>I will be able to demonstrate the employability skills needed to be a good employee</b>  <b>I will be able to contribute to the success of a team</b>  <b>I will be able to demonstrate the ability to stay on task to produce high quality deliverables on time</b>	<b>Interchangeable parts</b> <b>Jig</b> <b>Fixture</b> <b>Template</b> <b>Budget</b> <b>Wasted Motion</b> <b>Manufacturing processes</b> <b>Design</b> <b>Quality Control</b> <b>Research and Development</b> <b>Work Ethic Initiative</b> <b>Integrity</b> <b>Trust</b> <b>Predictable</b> <b>Reliable</b> <b>Organized</b> <b>Leadership</b> <b>Professionalism</b> <b>Positive Attitude</b> <b>Fairness</b> <b>Respect</b> <b>Flexibility</b>

	<p><b>I will be able to work within budgetary constraints</b></p>	
--	-------------------------------------------------------------------	--

**I will be able to plan and follow a work schedule**

**I will be able to work with minimal supervision**



CUMBERLAND COUNTY  
**PANTHERS**