Skilled and Technical Sciences (STS) 8

Course Description

This course will prepare students with the knowledge and skills needed for an introductory high school course

Code:

Program(s) of Study to which This Applies

- Listed here, bulleted list, Arial 11 – no effect

Course Framework	Reference Standards	Academic Crosswalk
Standard 1. Students will understand and accurately apply measurement.		LA.2.1.5.b(1)
Benchmark 1.1 Demonstrate linear measurement <u>Sample performance indicators:</u> • Read a ruler to an accuracy of 1/16” • Read a ruler to an accuracy of 1 mm • Manipulate fractions accurately	KS – ESS01.03.01-05 KS - ACC01.01.01 KS – ACC01.01.03 KS - MNC10.01.01 STL12.I STL13.F	MA8.1.3 (1) MA8.2.5 (1) CCSS: MA(8.NS.2) (1)
Standard 2. Students will know and model safe lab procedures and techniques.	KS – TRC06 KS - NMC06.01	LA.2.1.5.b(1)
Benchmark 2.1 The student will know safety requirements. <u>Sample performance indicators:</u> • Complete a safety test with 100% accuracy • Sign a safety contract	**KS - ESS06.01.01.03-04** **KS – TRC10.03** **KS - MNC06.05.03** **KS – ACC06.01.03** **KS – ACC06.01.02** KS – ESS06	LA.2.1.6.d,f(1)

	KS – SCC06 KS – SCPA10.02.01 KS – SCPA10.02.03 KS – SCPA10.02.04 STL12.H-K	
Benchmark 2.2 The student will practice appropriate classroom safety. <u>Sample performance indicators:</u> • Demonstrate safe tool operation • Demonstrate proper use of safe personal protection equipment • Operate and maintain a safe working environment • Demonstrate proper storage and handling of materials	KS - ESS06.01.05,07 KS – ACC06.01.03 KS – TRC09 STL12.H-K	
Standard 3. Students will use technical communication.		LA.2.1.5.b(1)
Benchmark 3.1 Read a working drawing <u>Sample performance indicators:</u> • Distinguish views • Identify line type • Interpret dimensions • Identify symbols	KS – ESS02.01.02,04 KS – ACC10.01.01 KS - NMC02 STL11.I-J STL12.I-K	
Benchmark 3.2 Produce a working drawing <u>Sample performance indicators:</u> • Complete orthographic sketch(s) • Complete isometric sketch(s) • CAD software – 2D and/or 3D	KS – ESS02.01.05-06 KS – ESS04.02.01 KS – SCPA03.01.03 KS – ACC10.01.02 KS – ACC10.01.04 KS – NMC10.01.01 STL11.H-L STL12.I-K STL17.J-K	MA8.2.4 (1) CCSS: MA(7.G.1)
Benchmark 3.3 Technical reading and writing <u>Sample performance indicators:</u> • Demonstrate proper use of terminology through journal entries	KS – ESS03.01.01-11 KS – SCPA03.01.01 KS - NMC02 STL11.K	LA.2.1.6.d,f(1) LA.2.2.a(1)

• Use and/or create a plan of procedure • Follow written and verbal instructions	STL17.H-I,K	
Benchmark 3.4 Design/Problem Solving <u>Sample performance indicators:</u> • Proper use of terminology • Recognize design/problem solving steps • Teamwork	KS – ACC03.01 KS – ACC07.01 KS – NMC03 STL11.H-L STL17.K	MA8.1.4 (1) LA.2.1.6.d,f(1)
Standard 4. Students will recognize material types and properties.		LA.2.1.5.b(1)
Benchmark 4.1 The student will identify different types of materials. <u>Sample performance indicators:</u> • Identify materials • Identify properties • Identify material applications	KS – SCPA10.01.01-02 KS - ACC10.02.02 STL1.F-H STL9.G	
Standard 5. Students will demonstrate material processing.		LA.2.1.5.b(1)
Benchmark 5.1 The student will know material processes. <u>Sample performance indicators:</u> • Know cutting processes • Know drilling/boring • Know sanding/grinding • Know forming processes • Know finishing processes	KS – SCPA10.01.01-02 KS - MNC10.01.02 KS – ACC10.02.01 STL9.F	
Benchmark 5.2 The student will demonstrate material processes. <u>Sample performance indicators:</u> • Demonstrate cutting processes • Demonstrate drilling/boring • Demonstrate sanding/grinding	KS – ACC10.02.03 KS – SCPA10.01.01-04 KS – SCPA10.02.03-04 STL9.F,H STL11.L	MA8.1.3 (1) MA8.2.5 (1) CCSS: MA(7.NS.3)

• Demonstrate forming processes • Demonstrate finishing processes		
Standard 6. Students will select tools for the correct operation.		LA.2.1.5.b(1)
Benchmark 6.1 The student will identify tools. <u>Sample performance indicators:</u> • Identify the tools • Inspect and report tool conditions • Select and apply the appropriate tool	KS – SCPA10.01-02 KS – SCPA10.02.03-04 KS - ACC10.02.01 STL12.I,K	LA.2.2.a(1)
Standard 7. Students will explore career opportunities.	KS – NMC01	LA.2.1.5.b(1) LA.2.1.6.d,f(1) LA.2.2.a(1) LA.2.3.1.a(1)
Benchmark 7.1 The students will examine and report on the Skilled and Technical Sciences (STS) Career Field. <u>Sample performance indicators:</u> • Architecture & Construction • Manufacturing • Science, Technology, Engineering, & Math (STEM) • Transportation, Distribution, & Logistics (TDL)	KS – ESS09.07.01 KS – SCC09.01.01 KS – ACC05.02 KS – NMC04 KS – NMC09 KS – NMC10 STL18.F-G STL19.H STL20.F-I	
Benchmark 7.2 The students will explore and report on emerging technologies. <u>Sample performance indicators:</u> • Robotics • Nanotechnology • Green Technologies • Space Exploration • Energy	STL14.G STL15.F, H-I STL16.E-I STL17.H-K STL18.F-I STL19.F-H,K	

Reference Standards Sources

- KS = Career Clusters Knowledge and Skills Statements. Revised 2008. National Career and Technical Education Foundation, Silver Spring, MD. www.careerclusters.org.
- (additional reference standards listed)

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Other Information

Suggestions for innovative teaching and learning strategies:	• Listed here (not sentences) – Arial, 11 – no effect. Bulleted list. No space following list. •
Related assessments:	• Listed here (not sentences) – Arial, 11 – no effect. Bulleted list. No space following list. •
Extended learning opportunities:	• Listed here (not sentences) – Arial, 11 – no effect. Bulleted list. No space following list. •