Skilled and Technical Sciences (STS) 7

Course Description

In this course students will explore fundamentals in Skilled and Technical Sciences.

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.1.1.5.b(1)
Benchmark 1.1 Demonstrate linear measurement <u>Sample performance indicators:</u> • Read a standard ruler • Read a metric ruler	KS – ESS01.03.01-05 KS - MNC10.01.01 STL12.I STL13.F	MA7.1.3 (1) MA7.2.5 (1) CCSS: MA(7.NS.2) (1) SC8.1.1.j (1)
Standard 2. Students will know and model safe lab procedures and techniques.	KS – TRC06	LA.1.1.5.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 – TRC10.03 KS - MNC06.05.03 KS – ACC06.01.03 KS – ESS06 KS – SCC06 KS – SCPA10.02.01,04-04 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 – TRC09 STL12.H-K	
Standard 3. Students will be introduced to technical communication.	KS-MNC10.01.01	LA.1.1.5.b(1)
Benchmark 3.1 Understand and produce sketches and working drawings. <u>Sample performance indicators:</u> • Distinguish views • Interpret dimensions • Identify symbols and line types • Complete orthographic and isometric sketch(s)	KS – ESS02.01.02,04-06 KS – ACC10.01.01 KS – ACC10.01.02 KS – ACC10.01.04	
Benchmark 3.2 Technical reading and writing <u>Sample performance indicators:</u> • Demonstrate proper use of terminology through journal entries • Follow a plan of procedure • Follow written and verbal instructions • Access information from a variety of sources	KS – ESS02.01.02,04-05 STL11.K STL17.H-I,K	LA.1.1.6.d,f(1) LA.1.2.2.a(1)
Benchmark 3.3 Design/Problem Solving <u>Sample performance indicators:</u> • Proper use of terminology • Recognize design/problem solving steps • Teamwork	KS – ESS03.01.01-11 KS – SCPA03.01.01 STL11.H-L STL17.K	MA7.2.4 (1) CCSS: MA(7.G.1) SC8.1.3 (2)
Benchmark 3.4 Information and Communication Technology <u>Sample performance indicators:</u> • Audio/ Video Communication	KS – ESS02.01.06 KS – ESS02.06 KS – SCPA03.01.02 STL17.H-K	

• Digital Communication • Graphic Communication		
Standard 4. Students will experience skills needed to complete a project.	KS – NMC10.01	LA.1.1.5.b(1)
Benchmark 4.1 The student will identify needed supplies. <u>Sample performance indicators:</u> • Identify materials • Identify material applications	KS – SCPA10.01.01-02 STL9.G	MA8.1.4 (1)
Benchmark 4.2 The student will process material. <u>Sample performance indicators:</u> • Demonstrate cutting processes • Demonstrate drilling/boring • Demonstrate sanding/grinding • Demonstrate forming processes • Demonstrate finishing processes	KS - ACC10.02.01 KS – ACC10.02.03 KS – SCPA10.01.01-04 KS – SCPA10.02.03-04 STL9.F,H STL11.L	MA7.1.3 (1) MA7.2.5 (1) CCSS: MA(7.NS.3)
Benchmark 4.3 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 – ACC10.02.02 KS – ACC10.02.03 KS – SCPA10.01.01-02 KS – SCPA10.02.03-04 STL12.I,K	LA.1.2.2.a(1)
Standard 5. Students will explore career opportunities.	KS – NMC01	LA.1.1.5.b(1) LA.1.1.6.d,f(1)
Benchmark 5.1 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)	KS - NMC04 KS – NMC09 KS – ACC05.02 KS – ESS09.07.01 KS – SCC09.01.01 STL18.F-G STL19.H	

• Transportation, Distribution, & Logistics (TDL)	STL20.F-I	
Benchmark 5.2 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-H STL17.H-K STL18.F-G STL19.F-H	

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)

Contributors

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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. •