# Exploring Skilled and Technical Science – 6th Grade

## Course Description

## In this course students will explore fundamentals in Skilled and Technical Sciences at the 6th grade level.

## Course Code: 100706

| Course Content | CTE Reference Standards | Crosswalk to Nebraska Academic Crosswalk |
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| **Standard 1. Students will understand and accurately apply measurement.** |  |  |
| Benchmark 1.1 Demonstrate linear measurement    Sample performance indicators:   * Read a ruler | KS - MNC10.01.01  KS – ESS01.03.01  KS – ESS01.03.02  KS – ESS01.03.04  STL12.1  STL13.F | MA6.2.5 (1)  SC8.1.1.j (1) |
| **Standard 2. Students will know and model safe lab procedures and techniques.** |  |  |
| Benchmark 2.1 The student will know safety requirements.  Sample performance indicators:   * Follow lab procedures * Demonstrate proper storage and handling of materials * Demonstrate safe tool operation * Demonstrate proper use of safe personal protection equipment | KS - MNC06.05.03  KS – ACC06.01.03  KS – ESS06  KS – SCC06  KS – SCPA10.02.04  STL12.H-K |  |
| **Standard 3. Students will be introduced to Design and Problem Solving.** |  |  |
| Benchmark 3.1 Design/Problem Solving  Sample performance indicators:   * Identify the problem * Brainstorm for ideas * Select best solution * Complete model/prototype * Test and evaluate model/prototype * Redesign and improve | KS - MNC03  KS – ACC03.01.01  KS – ACC03.01.05  KS – ACC07.01  KS – TRC03  KS – TRC07  KS – ESS03.01  KS – ESS03.02  KS – ESS03.03  KS – SCPA10.01.04  STL8E-G  STL9.F-H  STL11.H | MA6.2.4 (1)  MA6.2.5 (1)  CCSS: MA(6.G.1) (1)  SC8.1.3 (2) |
| **Standard 4.** **Students will define Technology.** |  |  |
| Benchmark 4.1 The student will understand the core concepts of technology.  Sample performance indicators:   * Human made * Product and process * Systems model * Invention and innovation | KS - MNC10.01.02  KS - MNC05  KS – ACC05  KS – TRC07  STL1.F-H  STL2.M-P,T  STL7.F |  |
| Benchmark 4.2 The student will be aware of technological impacts  Sample performance indicators:   * Cost and benefits * Societal responsibilities | KS - MNC10.01.02  KS – MNC05.01.03  KS – ACC08.01.01  KS – ACC08.01.03  STL4.D-G  STL5.D-F  STL6.D-G  STL7.C |  |
| **Standard 5**. **Students will explore career opportunities.** |  |  |
| Benchmark 5.1 The students will examine and report on the Skilled and Technical Sciences (STS) Career Field.  Sample performance indicators:   * Architecture & Construction * Manufacturing * Science, Technology, Engineering, & Math (STEM) * Transportation, Distribution, & Logistics (TDL) | KS – MNC04  KS – MNC09  KS – ACC04  KS – ACC05.03.01  KS – ESS09.07  KS – SCC09.01  STL18.F-G  STL19.H  STL20.F-I |  |
| Benchmark 5.2 The students will explore and report on emerging technologies.  Sample performance indicators:   * Robotics * Nanotechnology * Green Technologies * Space Exploration * Energy | KS – MNC04  KS – MNC09  KS – ACC04  KS – ACC10.02.02  STL14.G  STL15.F,H  STL16.E-F  STL17.H  STL18.F  STL19.F-G |  |

### 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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