
Coal City Unit District #1
S.T.E.M. - 7
Science Curriculum

**SC.STEM7:1 Students will use the Engineering Process to be an innovative designer
(MS-ETS1, NGSS SEPs, ISTE 4)**

SC.STEM7:1-1	Describe a design problem.
SC.STEM7:1-2	Identify multiple solutions for a problem.
SC.STEM7:1-3	Design a solution for a problem.
SC.STEM7:1-4	Analyze collected data.
SC.STEM7:1-5	Evaluate the effectiveness of a solution.
SC.STEM7:1-6	Revise a solution based on reflection.
SC.STEM7:1-7	Communicate the outcome of the process.

**SC.STEM7:2 Students will demonstrate the roles and responsibilities of a programmer.
(CSTA 2, ISTE 5)**

SC.STEM7:2-1	Plan programs using pseudocode to break down large tasks into smaller, organized steps.
SC.STEM7:2-2	Use computational thinking to create a solution pathway.
SC.STEM7:2-3	Identify the different ways to use movement and directional instructions.
SC.STEM7:2-4	Analyze sensor data to predict outcomes and revise programs.
SC.STEM7:2-5	Incorporate mathematical concepts in the program. (e.g., distance, angles, diameter)
SC.STEM7:2-6	Implement problem solutions using a programming language. (e.g., looping behavior, variables, conditionals, array and indexes)

SC.STEM7:3 Students will demonstrate the characteristics of digital citizenship and personal internet safety (ISTE 2)

SC.STEM7:3-1	Create strategies and guidelines to ensure healthy media balance.
SC.STEM7:3-2	Analyze how to limit individual data collected by others.
SC.STEM7:3-3	Evaluate the potential impact of a digital footprint.
SC.STEM7:3-4	Reflect on the positive and negative role that social media can have on relationships.
SC.STEM7:3-5	Identify ways to problem solve and stand up to cyberbullying.
SC.STEM7:3-6	Demonstrate an understanding of and respect for using and sharing intellectual property.