CLEAR CREEK AMANA MIDDLE SCHOOL COURSE FRAMEWORK

COURSE/SUBJECT MS STEM

UNIT PACING	LEARNING TARGETs Students will be able to…	Materials Used	STANDARD (Which standards (i.e. common core, MMC, etc.) does this address?)
Construction Exposure - Blueprint Picnic Table Unit - 5 days	SWBAT use ratio and proportional thinking to build a scale model of a picnic table using blueprints and provided classroom materials	Scissors, hacksaws, balsa wood, rulers, tape measures, glue	STEM Essential 1 - Critical Thinking Gathers, discovers, and interprets information to solve problems. Evaluates info to define a problem.
Construction Exposure - Floor Joist Unit - 4 days	SWBAT use the design process to design, build, and test the structural capabilities of a floor joist to hold weight	Scissors, hacksaws, balsa wood, rulers, tape measures, glue	STEM Essential 2 - Character Demonstrates good character in work, interactions, and reflection. Plans an evidence based solution.
Construction Exposure - Dog Park Obstacle Design Unit - 5 days	SWBAT use the design process to design, model, and refine interactive builds to add to the local city dog park	Scissors, hacksaws, balsa wood, rulers, tape measures, glue, paper blueprint tool	STEM Essential 3 - Creating Courage to generate and develop innovative ideas. Designs a prototype for a specific solution.
Construction Exposure - Group Project - 10 Days	SWBAT use collaboration and communication skills to work on the course project 6th Grade - Energy Efficiency 7th Grade - Nutrition and Healthy Habits 8th Grade - Sustainability	Chromebooks, STEM cart supplies, any other miscellaneously needed supplies	STEM Essential 4 - Collaborating Practices flexibility, responsibility, leadership, and responsiveness in group settings. Uses feedback to improve their model or solution.

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			STEM Essential 5 - Communication Engages in diverse classroom settings by using effective listening and presentation skills. Integrates technology to enhance their process.
Course Assessments	Students will assess over the five essential standards covered during their experiences with the course	Assessment Choices - Paper, Electronic, Verbal	