**Coppell Independent School District**

**CHS School of Engineering**

**District Mission:**

The mission of the Coppell Independent School District, as a committed and proven leader in educational excellence, is to ensure our learners achieve personal success, develop strong moral character, and become dynamic leaders and global citizens with a zeal for serviceby engaging each individual through innovative learning experiences led by a visionary staff and progressive community.

**Call to Action\*:**

Empowered with knowledge and skills, each CISD learner courageously pursues individual passions and meaningfully contributes to the evolving world.

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| **Program Mission/Purpose (*Long-Term Integrated Outcomes*)**  The mission of the Coppell School of Engineering, a focused, small-learning community embracing a common vision, is to develop strong, inquiry driven learners with a passion for designing solutions to meet human needs through: relevant and challenging real-life learning experiences, development of strong interpersonal skills, and mastery of technical skills to provide a solid foundation for a future in STEM related careers. | | **Program-Area Outcomes** (Long-Term Overarching Transfer Goals)  ***Students will independently use their learning to…***   1. use the appropriate digital/analog tools to effectively and efficiently complete the stated objective and communicate the results to stakeholders and other interested parties. 2. apply the appropriate science and engineering processes to an activity. 3. logically identify and organize data to analyze and implement possible solutions with the goal of achieving the most efficient and effective combination of steps and resources. 4. represent data through abstractions, such as models and simulations. 5. automate solutions through algorithmic thinking (a series of ordered steps). 6. generalize and transfer a design process to a wide variety of problems. 7. demonstrate empathy in design solutions. 8. Develop and follow long range goals for their personal and professional life. | |
| **Overarching Enduring Understanding(s)**  ***Students will understand that . . .***   1. the personal, ethical, social, economic, and cultural contexts in which people operate affects the appropriateness of a solution. 2. asking for the contributions and feedback of others leads to better outcomes than working individually when designing solutions. 3. testing and refinement is the deliberate and iterative process of improving design. 4. communication involves personal expression and exchanging ideas with others. 5. the ability to recognize appropriate and worthwhile opportunities to apply computation is a skill that develops over time and is central to engineering. 6. using generalized solutions and parts of solutions designed for broad reuse simplifies the development process by managing complexity. 7. the process of ideation embraces both creative expression and the exploration of ideas to create prototypes to solve problems. | **Overarching Evidence**  (Anchor tasks/Cornerstone Assessments, Exemplars & Longitudinal Rubrics)   1. Report Rubric 2. Capstone project 3. OSHA 4. Portfolio | | **Overarching Essential Question(s)**   1. What's the/a problem? 2. What's a useful solution? 3. How do I get from the problem to the solution? 4. What is data? 5. What is the value added? 6. Who is my audience? 7. What skills/experience are needed? 8. Was I lucky or good? |
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\*A Call to Action connects staff, students, parents, and community to mission (e.g., purpose) and vision.

[**UbD Glossary**](https://drive.google.com/folderview?id=0B3YnD20026m3SElwLS1NSlF0Q1U&usp=sharing)