



HMS Science Curriculum

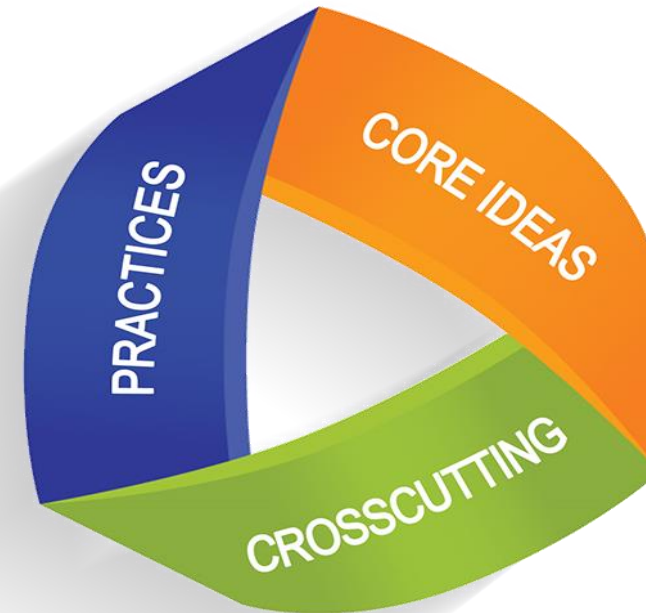
Next Generation Science Standards

- ▶ Starting with the 2017-18 school year District 181 will fully implement the Next Generation Science Standards (NGSS) K-8.
- ▶ The NGSS replaces the old Illinois science standards.
- ▶ Illinois was one of the leading states in the development of the standards.
- ▶ NGSS is NOT part of the Common Core State Standards (CCSS)



1. Three Dimensional Learning

- ▶ Scientific and Engineering Practices
- ▶ Crosscutting Concepts
- ▶ Disciplinary Core Ideas



2. Progression of Learning

- ▶ Students build on knowledge and skills from each grade
- ▶ There are multiple opportunities to revisit and expand their understanding



3. Focus on Explaining and Designing

- ▶ The goal of instruction is for students to explain real-world phenomena and to design solutions to problems



4. Integration of Engineering and Science Practices

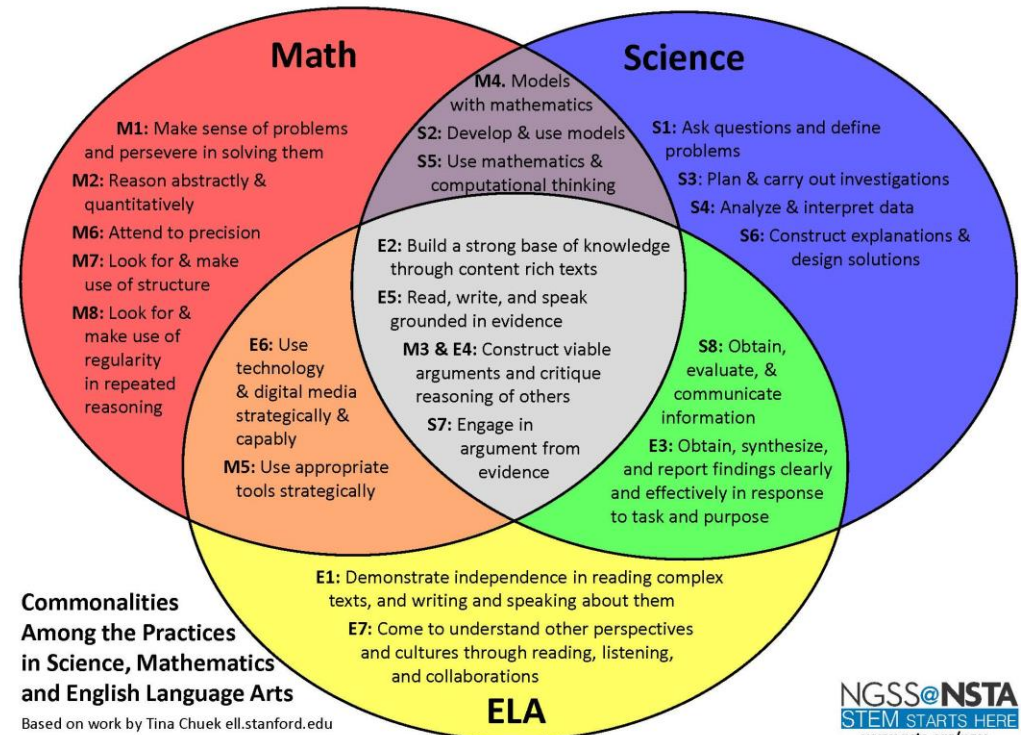
- ▶ Aspects of engineering and science practices are incorporated into the NGSS

Science and Engineering Practices

- Asking questions (for science) and defining problems (for engineering)
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using mathematics and computational thinking
- Constructing explanations (for science) and designing solutions (for engineering)
- Engaging in argument from evidence
- Obtaining, evaluating, and communicating information

5. Connection to Math and Literacy

- ▶ There is alignment with the CCSS in both math and ELA



Some Shifts in Instruction

| Less | More |
|--------------------------------------|---|
| Rote memorization of facts and terms | Facts and terms learned as needed while developing explanations and designing solutions |
| Questions with only one right answer | Open-ended questions that focus on evidence to generate claims |
| Reading textbooks | Reading multiple sources |
| Pre-planned outcomes for labs | Labs with a range of possible outcomes |

D181 Science Curriculum

- ▶ The entire science curriculum is available on the District website at:
- ▶ http://www.d181.org/data/files/gallery/ContentGallery/CCSD_181_BOE_Approved_Science_Curriculum_.pdf

QUESTIONS?

