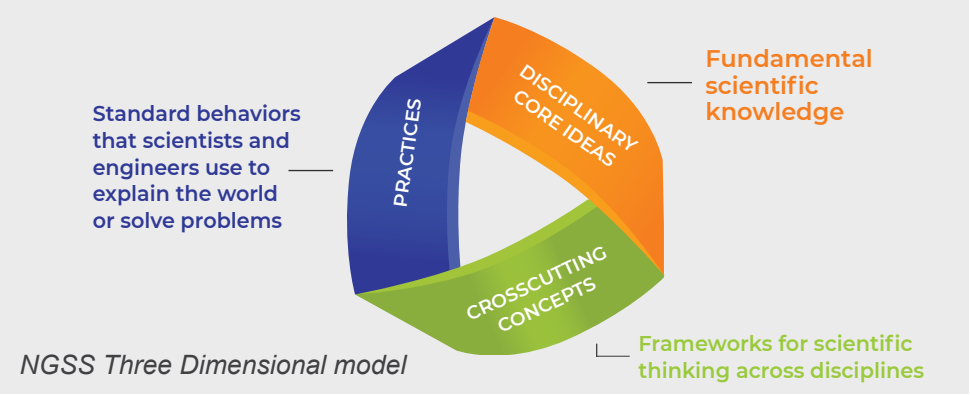
Next Generation Science Standards (NGSS) Factsheet

The Next Generation Science Standards (NGSS) were adopted by the Board of Education in Feb. 2016. Beginning in the school year 2019–20, the HSA-Science, Biology EOC Exam and HSA-Alt Science will be fully aligned to the NGSS to reflect the three-dimensional nature of the standards and the emphasis on phenomenon-driven learning.

WHAT ARE THE NEW SCIENCE STANDARDS

The NGSS were developed by states and guided by the National Research Council, the National Science Teachers Association, the American Association for the Advancement of Science, and Achieve. The standards reflect current research and best practices in science teaching and learning to prepare students to think critically, analyze information and solve complex problems.



NGSS Three Dimensional model

WHY ARE THEY IMPORTANT

The NGSS provide a strong science education that equips students with the ability to think critically, analyze information, and solve complex problems — the skills needed to pursue opportunities within and beyond STEM fields.

WHAT WILL NGSS LOOK LIKE IN THE CLASSROOM?

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
Rote memorization of facts and terminology.	Facts and terminology learned as needed while developing explanations and designing solutions supported by evidence-based arguments and reasoning.
Learning of ideas disconnected from questions about phenomena.	Systems thinking and modeling to explain phenomena and to give a context for the ideas to be learned.
Teachers providing information to the whole class.	Students conducting investigations, solving problems, and engaging in discussions with teachers' guidance.
Teachers posing questions with only one right answer.	Students discussing open-ended questions that focus on the strength of the evidence used to generate claims.
Students reading textbooks and answering questions at the end of the chapter.	Students reading multiple sources, including science-related magazine and journal articles and web-based resources; students developing summaries of information.
Pre-planned outcome for "cookbook" laboratories or hands-on activities.	Multiple investigations driven by students' questions with a range of possible outcomes that collectively lead to a deep understanding of established core scientific ideas.
Worksheets.	Student writing of journals, reports, posters, and media presentations that explain and argue.
Oversimplification of activities for students who are perceived to be less able to do science and engineering.	Provision of supports so that all students can engage in sophisticated science and engineering practices.

More information: http://bit.ly/HIDOE-NGSS-2019