

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
Worksheets	Student writing of journals, reports, posters, and media presentations that explain and argue
<p>Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards</p>	

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
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
<p>Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards</p>	

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
Teachers providing information to the whole class	Students conducting investigations, solving problems, and engaging in discussions with teachers' guidance
Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards	

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
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
Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards	

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
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
Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards	

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
Source: National Research Council. (2015). <i>Guide to Implementing the Next Generation Science Standards</i> (pp.8-9). Washington, DC: National Academies Press. http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards	

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
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

Source: National Research Council. (2015). *Guide to Implementing the Next Generation Science Standards* (pp.8-9). Washington, DC: National Academies Press. <http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards>

SCIENCE EDUCATION WILL INVOLVE LESS:	SCIENCE EDUCATION WILL INVOLVE MORE:
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

Source: National Research Council. (2015). *Guide to Implementing the Next Generation Science Standards* (pp.8-9). Washington, DC: National Academies Press. <http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards>