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Next Generation Science Standards Writing Committee
c/o Achieve
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To Whom It May Concern:

On behalf of ASME, I would like to commend the state-led writing team's work on the next generation science standards (NGSS). ASME has been supportive of NGSS since its inception, especially since it is the first time engineering content has been included in science standards in such a meaningful way.

Founded in 1880 as the American Society of Mechanical Engineers, ASME is a more than 130,000-member professional organization focused on technical, educational and research issues of the engineering and technology community. The ASME Board on Education was actively engaged in the NGSS process, serving as a key stakeholder and providing comments on two public drafts and one confidential draft of the standards.

ASME is very supportive in general of the efforts taken to both define engineering design and to integrate engineering practices throughout K-12 science learning in the NGSS. The meaningful integration of engineering practices in the NGSS will promote critical thinking, provide new levels of relevancy to motivate students to learn science content, make engineering and engineering careers more accessible to all students, and prepare the next generation to solve global problems facing humanity.

As stated in the NRC *Framework for K-12 Science Education* upon which the NGSS is based, " ...We use the term 'engineering' in a very broad sense to mean any engagement in a systematic practice of design to achieve solutions to particular human problems." The authors have defined engineering well, and their elaboration to break it down into three phases of solving problems (A. Defining and delimiting engineering problems, B. Designing solutions to engineering problems, and C. Optimizing the design solution) is promising. However, the reality that now should be addressed is that the systematic process of performing engineering design is unfamiliar to the vast majority of teachers. ASME looks forward to working with state stakeholders and the engineering community to be a resource to fully implement engineering concepts in the NGSS.

Again, thank you for all of your and the state-led writing team's efforts in developing the NGSS, and we look forward to more states adopting the standards the coming months!

Sincerely,

Madiha Kotb
President