



MASSACHUSETTS SCHOOL
ADMINISTRATORS' ASSOCIATION



*An MSAA Professional Development Workshop for: Science Teachers
Grades K, 3, 5, 6 and 8, Curriculum Leaders, Principals and Assistant Principals*

Physical Science (PS2): Forces and Motion



Featuring **TEACHERS21** Presenter:
Katie Clarke

Tuesday, February 12, 2019
at the MSAA Office, Franklin

Sign-In: 8:00am–8:30am
Workshop: 8:30am–3:00pm

PD Hours: 6
Content Area: Curriculum and Instruction

Fees: Member \$215 / Non-Member \$285

MSAA Contact: pd@msaa.net

In this workshop participants will explore the PS2 strand from 2016 MA STE Standards. This workshop is designed for grades K, 3, 5, 6 and 8 teachers who teach science as these strands are expected to be taught and assessed in these grades. Participants will explore scientific vocabulary associated with each standard and learn ways to introduce these terms to their students using a variety of resources including technology. Participants acquire a deeper understanding of the science content and critical thinking skills associated with the 2016 MA STE standards. After completing this workshop, teachers should feel confident about their understanding of the content and better equipped to teach these standards to students.

Topics of exploration include:

- Explaining the effect of various forces on an object
- Investigating forces between magnets
- Defining a design problem that can be solved using interactions between magnets
- Supporting an argument that gravity is directed towards Earth's center
- Making claims about gravity
- Analyzing data about the effects of electric charges on the strength of electric forces
- Modeling Newton's Third Law
- Providing evidence of net force and mass on motion of an object

Katie Clarke taught Engineering & Design at the Pollard Middle School in Needham for 10 years where she was also responsible for researching and writing the Engineering and Design curriculum for grades seven and eight. Prior to teaching E & D, Katie taught 8th grade science for eight years. She is a graduate of the LIFT2 (Leadership Initiatives for Teaching and Technology) Program, an innovative professional learning program for middle and high school science, technology, engineering and math teachers. Katie completed the TUFTS CEEO Engineering Program and The JASON Program for STEM Teaching. In 2008 she was awarded the "Above and Beyond Award for Excellence in STEM Teaching" by the Massachusetts Technology Leadership Council.

[Register online at www.msaa.net](http://www.msaa.net)

LEADERSHIP MATTERS



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