The graduate analyzes connections among the three dimensions of science instruction—disciplinary core ideas, crosscutting concepts, and science and engineering practices—to prepare and plan for instruction.

The graduate integrates technology into science activities to support student engagement and content mastery.

The graduate develops assessment strategies that measure three-dimensional science learning to determine the effectiveness of teaching and learning experiences.

The graduate develops lessons that integrate the three dimensions of science with applicable technologies to connect scientific concepts and phenomena.

The graduate develops plans for the use, storage, and maintenance of science materials and protective equipment and for the care of living organisms to comply with district, state, and federal safety, ethical, and legal standards for science teachers.

The graduate establishes an emergency response plan to prepare for potential emergency situations in the science learning environment.