

WHAT IS ENERGY may advance the following

NEXT GENERATION HIGH SCHOOL SCIENCE STANDARDS

ENERGY

Students who demonstrate understanding can:

HS-PS3-3. Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

HUMAN SUSTAINABILITY

Students who demonstrate understanding can:

HS-ESS3-2. Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

ENGINEERING DESIGN

Students who demonstrate understanding can:

HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.