

NGSS High School Implementation Plan

January 22, 2018





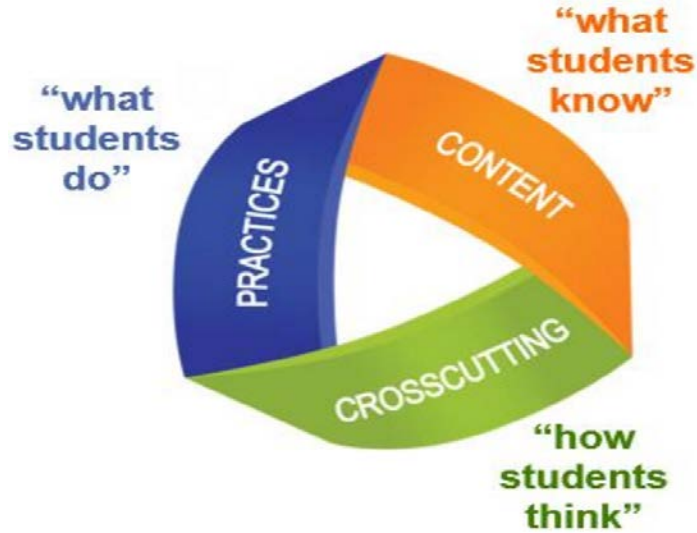
MDUSD High School NGSS Steering Committee

Front row, left to right: Felicia Yu, Carol Mishler, Karen Lowande, Jill Maganito, Lynn Young, Jan Robertson(Science Teacher on Special Assignment), Rochelle Macaluso, Deb Arthur, Maria Fletcher, Nancy Krajcar, Todd Bauleke Tessa Ekkenfelder, Mike Jimenez (Administrator), Tom Heller, Arthur Beauchamp (Facilitator), Evan White, Peter Bodrog. (Not available photo day: Dylan Bland, Spooimai Habibi, Marcy Place, Kipp Penovich, Cori Starr).



What is the NGSS?

Science and
Engineering



Core ideas
in the
discipline

Concepts
across
disciplines

MDUSD Science Vision Statement

*“Mt. Diablo Unified School District will ensure that **all** students are provided with a rich science curriculum which embodies the core ideas of science and bridges science and engineering to guide **all** students as they become responsible global citizens. The curriculum will provide tools and critical thinking skill necessary to enable life-long learning and to better adapt to the ever-changing world.”*

Science Vision Statement created by the NGSS Roll-Out Committee April 14, 2015



Ecosystems



Climate Change & Ecosystem Dynamics



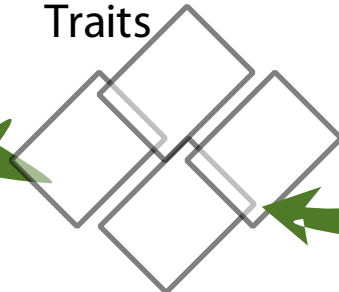
Earth's Atmosphere:
Photosynthesis & Respiration



3 course model

The Living Earth

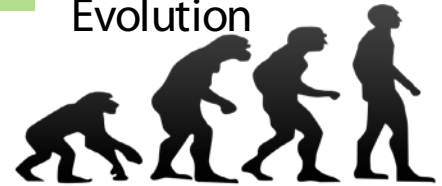
Inheritance & Variation in Traits



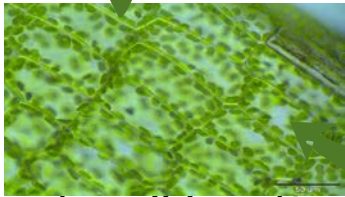
Fossil Evidence & Plate Tectonics



Evolution



Structure & Function:
Cells to Organisms



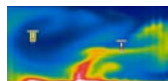
Combustion



CO_2
Heat

Climate
Change

Ocean
Acidification

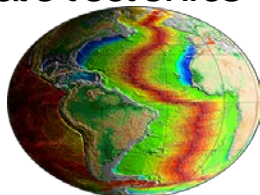


Convection

Particles

Atoms &
Elements

Plate tectonics



Chemical
Reactions

Bonds

*Fossil
Fuel
Combustion*

Equilibrium

CO_2 in
Atmosphere/
ocean



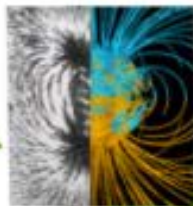
Chemistry in the Earth System



Forces & Motion



Forces at a distance



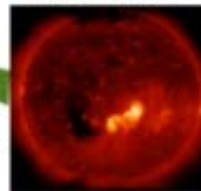
Planetary Motion



Origins of our Universe



Star Stuff

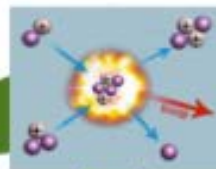


Energy Conversion



Spectra

Nuclear Processes



Electromagnetic Spectrum



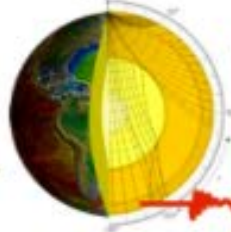
3 course model

Physics in the Universe

Radiometric Dating



Earthquake Waves



Seafloor age evidence of plate tectonics

Gravity

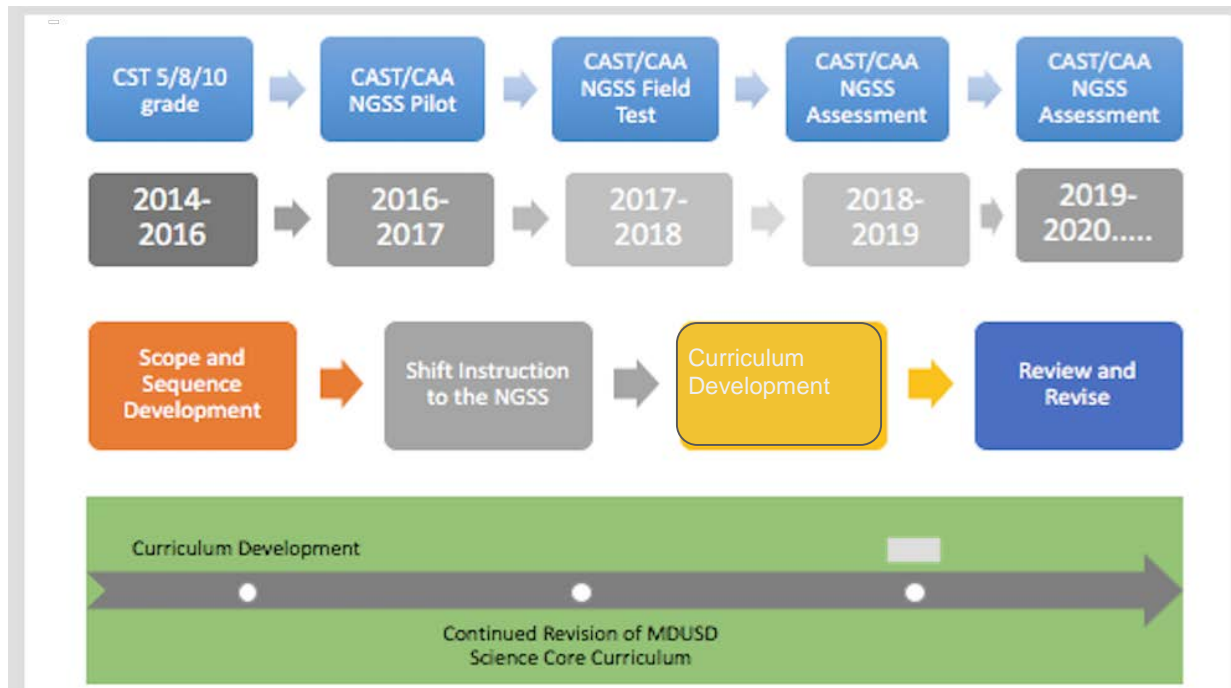
Gravity

Fusion

Fission

Decay

Wave propagation



Transition Timeline