

Minor #1

- 1. private conversation with teacher on how behavior is affecting learning
- 2. change of seat (area in the room)
- 3. review classroom/school/district expectations
- 4. Opportunity to refocus.

Minor #2

- 1. partner teacher (sitting in another classroom to refocus)
- 2. opportunity to practice skill deficit
- 3. review classroom/school/district expectations
- 4. Opportunity to refocus.

Minor #3

- 1. text/phone call home/email home
- 2. refocus conversation with teacher/review classroom/school/district expectations
- 3. think sheet/lunch detention

Minor #4 -

- 1. results in an after school teacher detention
- 2. opportunity to refocus
- 3. text/phone call home/email home
- 4. review classroom/school/district expectations

Minor #5 -

results in a Major (office referral)

by this point you will have had 18 interventions and opportunities to self-correct





Course of Study

Populations and Ecosystems

Catastrophic Events





Semester 1

The FOSS Populations and Ecosystems Course explores

ecosystems as the largest organizational unit of life on Earth, defined by its physical environment and the organisms that live in the physical environment. Students learn that every organism has a role to play in its ecosystem and has structures and behaviors that allow it to survive. Students raise populations of organisms to discover population dynamics and interactions over a range of conditions. They learn that food is the source of energy used by all life forms in all ecosystems to conduct life processes. Reproduction, including limiting factors, heredity and natural selection are explored as ways to understand both the similarity and the variation within and between species.

Semester 2

Catastrophic Events is divided into 3 parts - storms, earthquakes, and volcanoes. Students investigate the causes and effects of thunderstorms. earthquakes, and volcanic activity. Global heating, plate tectonics, ash, and effects on the atmosphere are studied in depth. The Earth is a dynamic planet. Catastrophic events such as hurricanes, earthquakes, and volcanic eruptions characterize the dynamic nature of Earth and occur in predictable places across the globe. Severe weather can affect human lives and property. Understanding the components and patterns of Earth systems, including the solid Earth, the hydrosphere, and the atmosphere, helps us to understand the nature of catastrophic events and why they occur on Earth.





CER/ CLAIM, EVIDENCE, REASONING - INTRO Weeks 1 - 4

Data / Measurement & Graphing Intro- Weeks 1 -4

Disciplinary Core Ideas /Cross Cutting Concepts

Safety / Lab Procedures Intro -Weeks 1-4

Scientific and Engineering Practices

Populations and Ecosystems

FIRST SEMESTER UNIT 1 INDIVIDUAL,POPULATION, COMMUNITY, ECOSYSTEM, BIOTIC, ABIOTIC, PHOTOSYNTHESIS, CELLULAR RESPIRATION

(days 1 - 30)

FIRST SEMESTER UNIT 2

BIOME, FOOD CHAIN, FOOD WEB, PRODUCER, CONSUMER, DECOMPOSER, HERBIVORE, CARNIVORE, DETRIVORE, AUTOTROPH

(days 31 - 60)

FIRST SEMESTER UNIT 3

ENERGY PYRAMID, BIOMASS, PRIMARY PRODUCER, PRIMARY CONSUMER, SECONDARY CONSUMER, TERTIARY CONSUMER, TROPHIC LEVELS, REPRODUCTIVE POTENTIAL, LIMITING FACTORS (days 61 - 90)

Catastrophic Events

<u>SECOND SEMESTER UNIT 1 STORMS</u>

Catastrophic Event, Hurricane, Tornado, Volcano, Earthquake*, Atmosphere*, glaciers, floods, storms, tsunamis, model, vortex, axis, fluid, evaporation, hydrosphere, hurricane, thunderstorm, weather, climate, energy transformations, tornado watch,tornado warning,conduction,convection, radiation, thermal energy, light energy, chemical energy, kinetic energy, sound energy, gravitational energy, temperature, potential energy, composition of atmosphere, layers of atmosphere, properties of atmosphere, air pressure, water cycle, properties of dense air molecules vs less dense, air mass, stable air mass, unstable air mass, colliding air masses, convection currents, weather front, condensation, precipitation, transpiration, precipitation, vapor, ocean currents, upwelling,

(days 91 - 116) -

<u>SECOND SEMESTER UNIT 2</u> <u>EARTHQUAKES</u>

seismic wave, body wave, P wave, S wave, seismic station , surface wave, fault, epicenter, focus, magnitude, amplitude, crest, wavelength, compression, tension, friction, seismologist, seismograph, seismogram, pangea, plate tectonics, core, mantle, lithosphere, asthenosphere, inner core, outer core, tectonic plate, plate boundary, divergent, convergent, transform, slip fault, subduction zone, landslide, tsunami, Richter scale

(days 117 -143) -

<u>SECOND SEMESTER UNIT 3</u> <u>VOLCANOES</u>

ash, vent, lava flow, caldera fissures, eruption, pahoehoe, crater, magma, basalt, silica, lahar, shield, vent, dormant, cinder, aa, composite, pyroclastic, lava, volcanic bombs, Ring of Fire, active volcano, extinct volcano, volcanologist, conduit, hot spot, geyser, intrusive igneous rock, extrusive igneous rock, pumice, summit, debris, sulphur, geothermal, sill, solidifies, shield volcano, composite volcano, cinder cone,

(days 144 - 174)

Grade 8 Science PSSA

Science PSSA Covers Content and Standards from 5th through 8th Grade



Biological Sciences

A. Organisms and Cells

- 1. Common Characteristics of Life
- 2. Energy Flow
- 3. Life Cycles
- 4. Cell Cycles
- 5. Form and Function
- 6. Organization
- 7. Molecular Basis of Life
- 8. Unifying Themes
- 9. Science as Inquiry

B. Genetics

- 1. Heredity
- 2. Reproduction
- 3. Molecular Basis of Life
- 4. Biotechnology
- 5. Unifying Themes
- 6. Science as Inquiry

C. Evolution

- 1. Natural Selection
- 2. Adaptation
- 3. Unifying Themes
- 4. Science as Inquiry

Physical Sciences: Chemistry and Physics

A. Chemistry

- 1. Properties of Matter
- 2. Structure of Matter
- 3. Matter & Energy
- 4. Reactions
- 5. Unifying Themes
- 6. Science as Inquiry

B. Physics

- 1. Force & Motion of Particles and Rigid Bodies
- 2. Energy Storage and Transformations:
- **Conservation Laws**
- 3. Heat / Heat Transfer
- 4. Electrical and Magnetic Energy
- 5. Nature of Waves (Sound and Light Energy)
- 6. Unifying Themes
- 7. Science as Inquiry

Earth and Space Sciences

A. Earth Structures, Processes and Cycles

1. Earth Features and the Processes that Change It

- 2. Earth's Resources / Materials
- 3. Earth's History
- 4. Sciences and Transfer of Energy
- 5. Water
- 6. Weather and Climate
- 7. Unifying Themes
- 8. Science as Inquiry

B. Origin and Evolution of the Universe

- 1. Composition and Structure
- 2. Unifying Themes
- 3. Science as Inquiry