

Course: Science - Earth/Space Science

Topic: Earth's Atmosphere

Date: January 23, 2014 ET

Days: 31

Subject(s):

Grade(s):

Curriculum: COLUMBIA BOROUGH SD Curriculum

Additional Information:

Attached Document(s):

PENNSYLVANIA

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Date: January 23, 2014 ET

Vocab Report for Topic: Earth's Atmosphere Subject(s):

Days: 31 Grade(s):

Concept: weather forecasting

cloud barometer anenometer isotherm isobar -

Concept: global patterns

El nino jet stream climate -

Concept: Impact of Earth's water

land breeze ocean breeze lake effect snow -

Concept: Atmosphere

atmosphere -

Date: January 23, 2014 ET

Topic: Earth's Features and Processes Subject(s):

Vocabulary:

intrusive, extrusive

igneous, metamorphic, sedimentary, rock cycle,

Days: 31 Grade(s):

Key Learning: Describe the constructive and destructive natural processes that form different geological structures and resources Unit Essential Question(s): How are the interactions among earth's system's measured? How is the internal structure of Earth organized? How do types of soil differ? What evidence can be determined from fossils? Concept: Concept: Concept: **Natural Processes** rock cycle soil types S8.D.1.1.3 S8.D.1.1.1 S8.D.1.1.2 Lesson Essential Question(s): How does the rock cycle change earth? (A) Lesson Essential Question(s): How do Earth's natural processes change the Lesson Essential Question(s): What are the main types of soil? (A) shape of the land? (A) What are the three types of rocks? (A) What are the characteristics of the different How do weathering and erosion change the types of soil? (A) shape of the land? (A) What types of soil are found in Pennsylvania? (A)

earthquake, landslide, earthquake, mountain,

Vocabulary:

humus, topsoil, loess, porosity, permeability

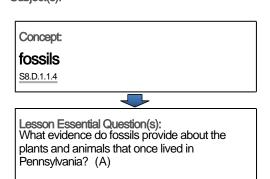
Vocabulary:

weathering, erosion

Date: January 23, 2014 ET

Topic: Earth's Features and Processes Subject(s):

Days: 31 Grade(s):



Vocabulary: fossil, index fossil

Additional Information:

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Vocab Report for Topic: Earth's Features and Processes Subject(s):

Course: Science - Earth/Space Science

Days: 31 Grade(s):

Concept: rock cycle

igneous metamorphic sedimentary rock cycle intrusive extrusive -

Concept: Natural Processes

earthquake landslide earthquake mountain weathering erosion -

Concept: soil types

humus topsoil loess porosity permeability -

Concept: fossils

fossil index fossil -

evaporation, condensation, precipitation,

transpiration, runoff, infiltration

Date: January 23, 2014 ET

Topic: Earth's water

Subject(s):

Days: 31 Grade(s):

Key Learning: water cycle components; freshwater and saltwater characteristics; types of water systems; stream development Unit Essential Question(s): Why is the water cycle important to Earth's processes? How do saltwater and freshwater systems compare? What are the characteristics of Earth's water systems and how do they compare? How do the characteristics of a stream determine the types of organisms that are found there? Concept: Concept: Concept Water Cycle Freshwater vs Saltwater Water systems S8.D.1.3.1 S8.D.1.3.2 S8.D.1.3.3 Lesson Essential Question(s): What are the processes of the water cycle? (A) Lesson Essential Question(s): How do saltwater and freshwater systems Lesson Essential Question(s): What are the characteristics of Earth's water compare? (A) systems? (A) Vocabulary: Vocabulary: Vocabulary:

freshwater, saltwater, salinity, density

wetland, ocean, river, watershed

Date: January 23, 2014 ET

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Course: Science - Earth/Space Science

Topic: Earth's water

Subject(s):

Days: 31 Grade(s):

Concept:

Stream characteristics

S8.D.1.3.4



Lesson Essential Question(s): What are the physical characteristics of a

How do a stream's characteristics determine the types of organisms found there? (A)



Vocabulary: biological diversity, water quality, flow rate, turbidity, tributaries, watershed

Additional Information:

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Vocab Report for Topic: Earth's water

Course: Science - Earth/Space Science

Days: 31 Grade(s):

Subject(s):

Concept: Water Cycle

evaporation -

condensation -

precipitation -

transpiration -

runoff -

infiltration -

Concept: Freshwater vs Saltwater

freshwater -

saltwater -

salinity -

density -

Concept: Water systems

wetland -

ocean -

river -

watershed -

Concept: Stream characteristics

biological diversity -

water quality -

flow rate -

turbidity -

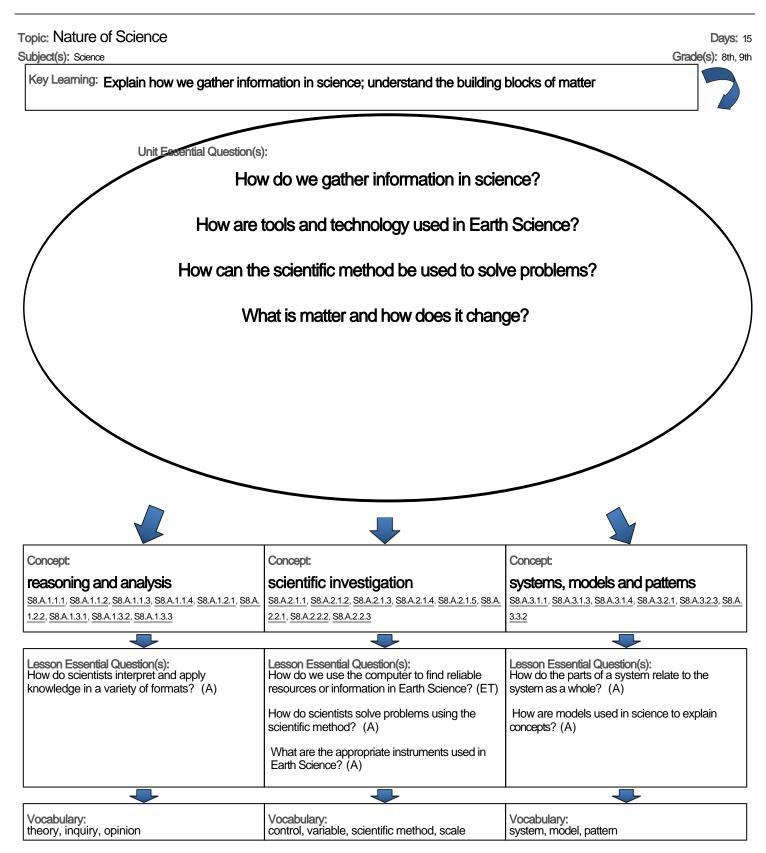
tributaries -

watershed -

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Teacher/Team Name: Demmerle



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Topic: Nature of Science Days: 15 Grade(s): 8th, 9th

Subject(s): Science Concept: Matter S8.C.1.1.1, S8.C.1.1.2

Lesson Essential Question(s): What is matter and how does it change? (A)

Vocabulary: atom, compound, density, molecule, mass

Additional Information:

Days: 15

Date: January 23, 2014 ET

Curriculum: COLUMBIA BOROUGH SD Curriculum

course: Science - Earth/Space Science

Teacher/Team Name: Demmerle

Vocab Report for Topic: Nature of Science

Subject(s): Science Grade(s): 8th, 9th

Concept: reasoning and analysis

theory -

inquiry -

opinion -

Concept: scientific investigation

control -

variable -

scientific method -

scale -

Concept: systems, models and patterns

system -

model -

pattern -

Concept: Matter

atom -

compound -

density -

molecule -

mass -

Date: January 23, 2014 ET

Topic: The Environment

Subject(s):

Days: 31 Grade(s):

Key Learning: Explain how humans impact the environment



Unit Essential Question(s):

Why is the sustainable use of natural resources necessary?

What are the effects of Environmental Laws on humans and the environment?

How do humans influence the environment?

How do renewable and nonrenewable resources differ?







Human Impact

Concept:

Renewable and Nonrenewable resources

Concept: Energy

Lesson Essential Question(s): How do human activities affect the

environment? (A)

How does waste management affect the the environment? (A)

What long term effects have occurred due to the use of integrated pest management? (A)

Lesson Essential Question(s):

Concept:

How do renewable and nonrenewable resources provide for human needs? (A)

How are renewable and non renewable resources different? (A)

What types of waste are produced from the use of renewable and non-renewable resources? (A)

Lesson Essential Question(s): How is energy transferred from place to place?

How does the sun impact the environment? (A)

How do the time span of renewability for fossil fuels and alternative fuels? (A)



waste management, integrated pest management

Vocabulary: renewable, non-renewable Vocabulary: energy, fossil fuels

Additional Information:

Vocabulary:

Course: Science - Earth/Space Science

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Date: January 23, 2014 ET

Vocab Report for Topic: The Environment

Subject(s):

Days: 31 Grade(s):

Concept: Human Impact

waste management - integrated pest management -

Concept: Renewable and Nonrenewable resources

renewable non-renewable -

Concept: Energy

energy fossil fuels -

Attached Document(s):

Date: January 23, 2014 ET

Topic: The Universe Days: 31 Subject(s): Grade(s): Key Learning: How Earth compares to other celestial bodies Unit Essential Question(s): How are the Earth, Sun and Moon movements related to each other? How are celestial bodies similar and different? Concept: Concept: Objects in Space Earth, Sun and Moon S8.D.3.1.1, S8.D.3.1.2 Lesson Essential Question(s): Lesson Essential Question(s): How does the Earth move in space? (A) How are the planets similar and different? (A) What causes the phases of the moon? (A) What are the characteristics of asteroids, comets, and meteors? (A) How do different types of stars compare? (A) Vocabulary: Vocabulary: axis, eclipse, orbit, revolution, rotation, satellite, HR diagram asteroid, comet, meteor, meteorite, meteoroid, planet, moon, dwarf planet, oort cloud, Kuiper belt Additional Information:

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Vocab Report for Topic: The Universe

Subject(s):

Days: 31 Grade(s):

Concept: Earth, Sun and Moon

axis -

eclipse -

orbit -

revolution -

rotation -

satellite -

HR diagram -

Concept: Objects in Space

asteroid -

comet -

meteor -

meteorite -

meteoroid -

planet -

moon -

dwarf planet -

oort cloud -

Kuiper belt -