Deer Valley Unified School District

Science Curriculum

Kindergarten

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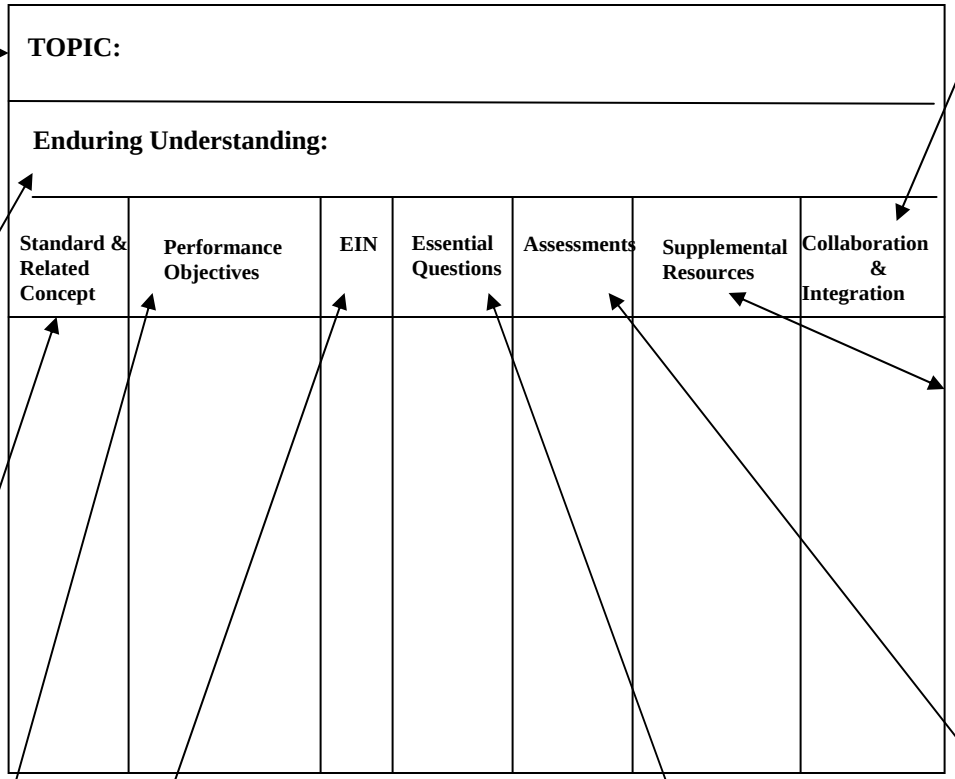
Curriculum Definition Page

Topic:
The organization of performance objectives into a common theme that promotes student engagement and focuses student inquiry.

Enduring Understanding:
A central and organizing notion that gives meaning and connection to facts. It has lasting value and can transfer to other inquiries and requires "uncoverage".

Standard and Related Concept:
Identifies the standard and concept from the state standards organized into the topic.

Performance Objectives:
Observable and measurable objectives at each grade level from the state standards.



Collaboration and Integration: Other content areas or topics within the content that lend themselves to integration with this topic or concepts.

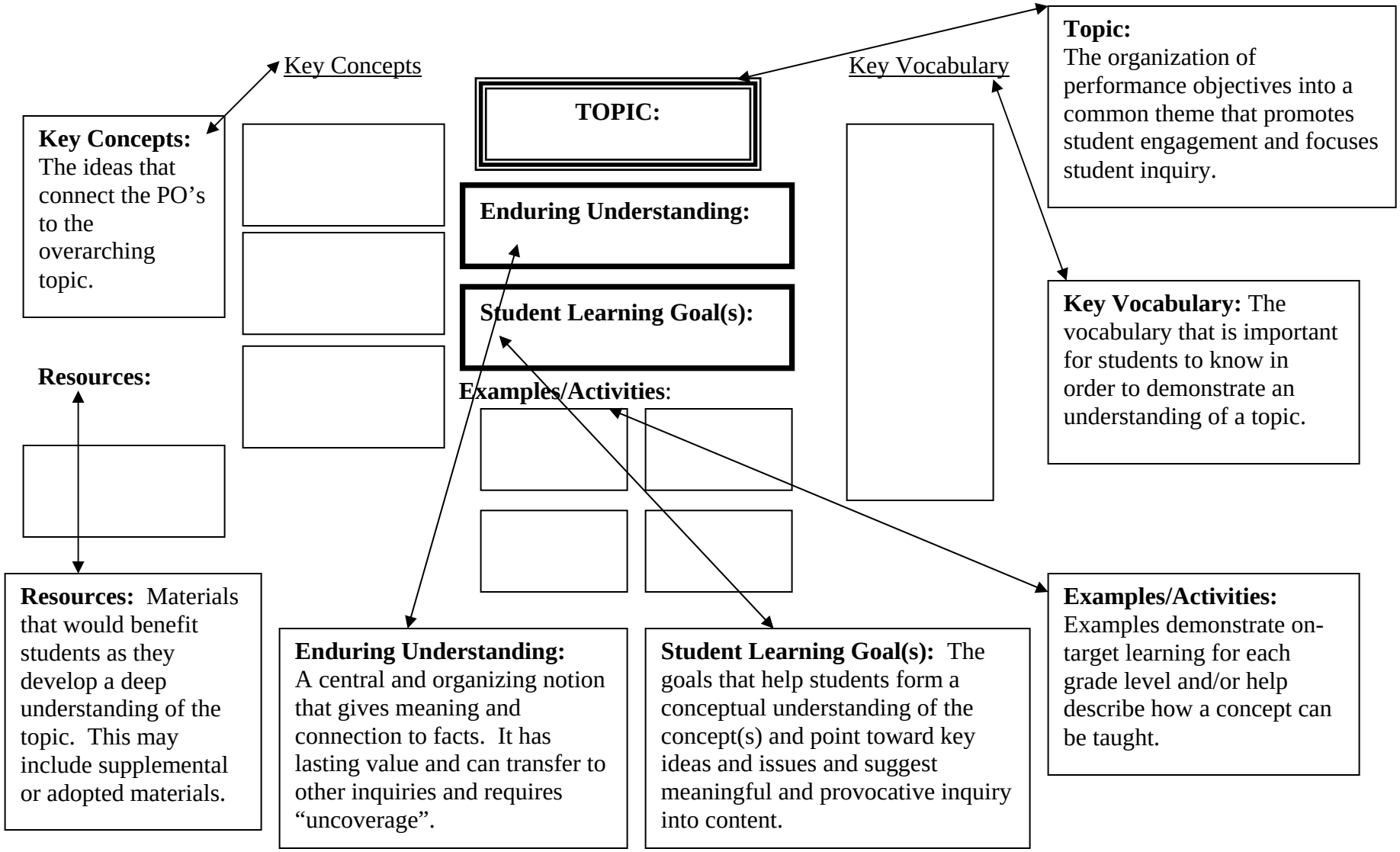
Supplemental Resources: Materials that would benefit students as they develop a deep understanding of the topic. May include supplemental or adopted materials.

E: The most essential and critical learning.
I: Important learning.
N: Content that is nice to know but less critical to conceptual understanding and developmental learning.

Essential Question: The mental questions that help students form a conceptual understanding of the concept or concepts. They point toward key ideas and issues and suggest meaningful and provocative inquiry into content.

Assessments: Suggested assessments that will allow a teacher to collect data on student success.

Concept Map Definition Page



Topic: Inquiry Process (Part 1)						
Enduring Understanding: The scientific method can be applied to problem solving.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process **Concept 1:** Observe, ask questions, and make predictions	PO 1. Observe common objects using multiple senses.	I	What do you notice? What do you already know? What do you want to learn? What do you think may happen? How can you be safe when doing a science investigation? What are some items you use in an investigation? How can you record what is happening?	Observation Journal Scientific Method pre- and post-test		**<u>Math:</u>** **Strand 2, Concept 1,** PO 1. Formulate questions to collect data in contextual situations.
	PO 2**.** Ask questions based on experiences with objects, organisms, and events in the environment. (See M00-S2C1-01)	E				
	PO 3. Predict results of an investigation based on life, physical, and earth and space sciences (e.g., animal life cycles, physical properties, earth materials).	E				
Concept 2: Participate in planning and conducting investigations, and recording data.	PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	E				
	PO 2**.** Participate in guided investigations in life, physical, and earth and space sciences.	E				
	PO 3. Perform simple measurements using non-standard units of measure to collect data.	I				

TOPIC: Inquiry Process (Part 1)

Key Concepts:

- Ask questions
- Predict results
- Be safe and use appropriate procedures
- Participate in investigations
- Use tools to collect data
- Record data

Enduring Understanding:

The scientific method can be applied to problem solving.

Student Learning Goals:

- The students will ask questions and predict what will happen in an investigation.
- The students will be safe and follow certain procedures.
- The students will participate in an investigation.
- The students will collect and record data from an investigation.

Resources:

Harcourt: Trophies Themes 1 through 12

FOSS: Wood and Paper
All Investigations

FOSS: Trees
All Investigations

FOSS: Animals Two by Two
All Investigations

Key Vocabulary:

balance
experiment
hypothesis
inquiry
investigation
magnifier
observe
predict
procedure
purpose
research
ruler
senses
thermometer

Topic: Inquiry Process (Part 2)						
Enduring Understanding: Objects can be classified (grouped) by common characteristics.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process **Concept 3:** Organize and analyze data; compare to predictions.	PO 1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics. (See M00-S4C4-01 and M00-S4C4-03)	E	What do you conclude from the investigation? How are your results similar or different from your prediction? How will you share the information?	Observation Journal Scientific Method pre- and post-test		**Math:** **Strand 2, Concept 1,** PO 2. Interpret a pictograph. **Strand 4, Concept 4,** PO 1. Verbally compare objects according to observable and measurable attributes. PO 3. Order objects according to observable and measurable attributes. **Listening and Speaking:** LS-R3. Share ideas, information, opinions and questions LS-R5. Participate in group discussions
	PO 2. Compare the results of the investigation to predictions made prior to the investigation. (See M00-S4C4-01)	E				
Concept 4: Communicate results of investigations.	PO 1. Communicate the results of an investigation using pictures, graphs, models, and/or words. (See M00-S2C1-02)	E				
	PO 2. Communicate with other groups to describe the results of an investigation. (See LS-R3 and LS-R5)	E				

TOPIC: Inquiry Process (Part 2)

Key Concepts:

- Compare according to characteristics
- Classify according to characteristics
- Sequence according to characteristics
- Compare results to predictions
- Communicate results through pictures, graphs, models, and words
- Communicate results with others

Enduring Understanding:

Objects can be classified (grouped) by common characteristics.

Student Learning Goals:

- The students will compare, classify, and sequence objects according to their characteristics.
- The students will compare the results of my investigation to my prediction.
- The students will communicate my results through pictures and words.

Resources:

Harcourt: Trophies Themes 1 through 12

FOSS: Wood and Paper
All Investigations

FOSS: Trees
All Investigations

FOSS: Animals Two by Two
All Investigations

Key Vocabulary:

analysis
characteristics
classify
communicate
compare
conclusion
discuss
organisms
results
sequence

Topic: People and Science						
Enduring Understandings: People use science in their daily lives.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 2: History and Nature of Science **Concept 1:** Identify individual and cultural contributions to scientific knowledge	PO 1. Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life.	I	How is science used daily? How have people contributed to science?	Observation Journals	http://en.wikipedia.org/wiki/Louis_Braille http://en.wikipedia.org/wiki/Jane_Goodall	
	PO 2. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Jane Goodall [scientist], supports Strand 4; Louis Braille [inventor] supports Strand 4).	I				

TOPIC: People and Science

Key Concepts:

Different people use science in daily life

Different people have made contributions to science

Enduring Understanding:

People use science in their daily lives.

Student Learning Goals:

- The students will give examples of how people use science in daily life.
- The students will identify how people have made contributions to science.

Resources:

Harcourt: Trophies Themes 10

Key Vocabulary:

contributions
culture
daily
diverse
Jane Goodall
Louis Braille

TOPIC: Senses						
Enduring Understanding: We use our senses to observe things in our world.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process Concept 1: Observations, Questions, Hypothesis Observe, ask questions and make predictions	PO 1. Observe common objects using multiple senses	E	What can we observe happening in our world? How can we organize what we observe? What tools do we use and how do they help us? How do we describe the characteristics of objects found in our world? What are the changes in the weather called?	Observations Demonstrations	Delta Science Reader *Properties* Books about Colors, Weather Internet: www.uen.org/Lessonplan/previIew.cgi?LPid=613 http://my.win.psu.edu/kas132/weather.htm http://comsewogue.k12.ny.us/~rstewart/k2001/Themes/colors/Colors www.coreknowledge.org/CK/resrcs/lessons/04_k_WeatherOrNot.pdf	**Math:** **Strand 5, Concept 2,** PO 1 Sort objects according to observable attributes Strand 5, Concept 2, PO 2 Provide rationale for classifying objects according to observable attributes (color, size, shape, weight, etc.)
Concept 3: Analysis and Conclusions Organize and analyze data; compare predictions	PO 1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics	E				
Strand 3: Science in Personal and Social Perspectives Concept 2: Science and Technology in Society Understand the impact of technology	PO 1. Describe how simple tools (e.g., scissors, pencils, paper clips, hammers) can make tasks easier	E				
Strand 5: Physical Science Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties	PO 1. Identify the following observable properties of objects using the senses: shape, texture, size, color	E				
Strand 6: Earth and Space Science Concept 3: Changes in the Earth and Sky Understand characteristics of weather conditions and climate	PO 1. Identify the following aspects of weather: temperature, wind, precipitation, storms	E				

Strands 1, 2, and 3 are designed to be explicity taught and embedded within the content Strands and are not intended to be taught in isolation.

TOPIC: Senses

Key Concepts:

Use tools (scissors, pencils, paper clips, magnets , hammers); Describe how they make life easier

Observe objects and classify/sort according to color, texture, size

Observe weather (temperature changes)

Enduring Understanding:

We use our senses to observe things in our world.

Student Learning Goal(s):

- The students will describe how tools make life easier.
- The students will use my senses to sort objects by a specific attribute.
- The students will observe the weather and discuss how it changes.

Key Vocabulary:

color words
cool, cold
describe, description
hot, warm
observation
rain
temperature
texture

Resources

Trophies: Theme 1

Examples/ Activities:

Make collages according to objects being sorted

Use school tools to complete simple tasks; use tools found in the home and discuss their usefulness

Record temperature daily as part of the Calendar/Morning Message

TOPIC: Human Body						
Enduring Understanding: My Body has many important parts.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 4: Life Science **Concept 1:** Characteristics of Organisms Understand that basic structures in plants and animals serve a function	PO 2. Name the following human body parts: head, shoulders, arms, elbows, wrists, hands, fingers, legs, hips, knees, ankles, feet, heels, toes	E	What are the names of the parts of my body are how are they related to the senses? What are the five senses and why are they important?	Observations Demonstrations	Hands by Lois Ehlert The Nose Book, The Ear Book, The Foot Book, The Tooth Book, The Eye Book, The Shape of Me all by Dr. Seuss Wood & Paper Science Story: "Are You A Scientist?" www.teachercreated.com/lessons/010413ps.shtml	**Health:** **Standard 1, Concept 1 CH-R3,** PO 1 Name body parts by teacher illustration. PO 2 Locate at least five out of seven body parts illustrated.
	PO 3. Identify the five senses and their related body parts: sight-eyes, hearing-ears, smell-nose, taste-tongue, touch-skin	E				

TOPIC: Human Body

Key Concepts:

Name Body parts and what they do

Identify the five senses and how they relate to body parts

Enduring Understanding:

My body has many important parts.

Student Learning Goal(s):

- The students will name all my body parts and tell what they do.
- The students will identify my five senses and explain why they are important.

Key Vocabulary:

head
shoulders, arms, elbows
legs, hips, knees, ankles
feet, heels, toes
wrists, hands, fingers
sight-eyes
hearing-ears
smell-nose
taste-tongue
touch-skin

Resources:

Trophies: Theme 2

Examples/Activities:

Students draw themselves and label the major body parts

Students analyze the purpose of the major body parts; classify which are for movement, etc

TOPIC: Plants and Animals						
Enduring Understanding: Plants and animals have similar needs and life cycles.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process **Concept 2:** Scientific Testing (Investigating and Modeling) Participate in planning and conducting investigations, and recording data	PO 2. Participate in guided investigations in life, physical, and earth and space sciences.	I	How does science affect various people and their occupations? How will these baby plants & animals look as they grow? What is necessary for plants and animals to survive? Why does the weather change?	Observations Demonstration	Wood & Paper Science Stories *Story of a Chair, Are You a Scientist?* Delta Science Readers *People in Science* FOSS Trees Science Stories: *My Apple Tree, Orange Trees* *Maple Trees* *Farm to Market* by Joan Wade Cole, *Food From Plants* and *Plants Grow Almost Anywhere* by Judith Holloway *From Grass to Butter* by Ali Mitgutsch, *Growing Vegetable Soup* by Lois Ehlert, *It Started As A Seed* by Dr. Alden Kelly,	**Reading:** **Strand 3, Concept 1,** PO1 Identify the purpose for reading expository test PO 2 Restate facts from listening to expository text PO 3 Respond appropriately to questions based on facts in expository text, heard or read
Concept 4: Communication Communicate results of investigations	PO 1. Communicate observations with pictographs, pictures, models, and/or words	E				
Strand 2: History and Nature of Science **Concept 1:** History of Science as a Human Endeavor Identify individual and cultural contributions to scientific knowledge	PO 1. Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life	N				
Strand 4: Life Science **Concept 2:** Life Cycles Understand the life cycle of plants and animals	PO 1. Describe that most plants and animals will grow to resemble their parents	E				
Concept 3: Organisms and Environments Understand the relationships among various organisms and their environment	PO 1. Identify some plants & animals that live in the environment	I				
	PO 2. Identify that plants and animals need the following to grow and survive: food, water, air, space	E				
	PO 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium)	I				
Strand 6: Earth & Space Science **Concept 3:** Changes in the Earth & Sky Understand characteristics of weather conditions & climate	PO 2. Describe observable changes in weather.	E				

Strands 1, 2, and 3 are designed to be explicity taught and embedded within the content Strands and are not intended to be taught in isolation.

TOPIC: Plants and Animals

Key Concepts:

Classify foods in a food pyramid

Observe how seeds change into plants

Enduring Understanding:

Plants and animals have similar needs and life cycles.

Student Learning Goal(s):

- The students will observe how objects change using multiple senses.
- The students will use measurement.

Key Vocabulary:

apple
gardens
leaves
roots
seeds
stem
vegetables
wood

Resources:

Trophies: Theme 3

FOSS: Trees Investigations 1-3

Examples/Activities:

Sort food by where it is grown (in the ground, on a tree, etc.)

Science Center: food sort; analyze food and its ingredients

Track and chart temperature changes and make logical conclusions.

TOPIC: Magnets						
Enduring Understanding: Magnets can make things move.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 5: Physical Science Concept 3: Energy and Magnetism Investigate different forms of energy	PO 1 Investigate how applied forces (push & pull) can make things move	I	How and why does a magnet work?	Observations Demonstrations	http://www.eduref.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Science/Physics/PHS0001.html Mickey's Magnet by Franklyn M. Branley and Eleanor K. Vaughan. DELTA Science Reader: "Properties" pg. 8	**Math: Strand 5, Concept 2,** PO 1. Sort objects according to observable attributes.
	PO 2. Investigate how forces can make things move without another thing touching them (e.g., magnets, static electricity)	I				
	PO 3. Sort materials according to whether they are or are not attracted by a magnet	I				
	PO 4. Identify familiar everyday uses of magnets (e.g., in toys, cabinet locks, decoration)	I				

TOPIC: Magnets

Key Concepts:

Investigate magnets and their forces

Sort/classify objects based upon their ability to attract a magnet

Identify uses for magnets

Enduring Understanding:

Magnets can make things move.

Student Learning Goal(s):

- The students will investigate the different forces of push and pull that are created by magnets.

Key Vocabulary:

attract

force(s)

magnets

pull

push

Examples/Activities:

Invent an idea for a new invention using a magnet and present to class.

Use magnets to move objects without touching them

Sort objects that are magnetic and record results.

Resources:

Trophies: Theme 4

TOPIC: Animals						
Enduring Understanding: Animals have different needs.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 4: Life Science **Concept 3:** Organisms and Environments Understand the relationships among various organisms and their environment	PO 1. Identify some plants and animals that exist in the local environment	I	What do animals need to survive? How do they grow and change?	Observations Demonstrations	DELTA Science Readers Expository books about animals	**Health: Standard 1, Concept 1CH-R7,** PO 1 Describe why the body needs food. **CH-R8.** PO 1 Select foods that contribute to good health
	PO 2. Identify that plants and animals need the following to grow and survive: food, water, air, space	E				
	PO 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium)	I				

TOPIC: Animals

Key Concepts:

Non-fiction study of animals and how they live

Analyze how animals move, eat, and survive in various environments

Students self-select animals to study

Enduring Understanding:

Animals have different needs.

Student Learning Goal(s):

- The students will observe animals and learn about what they need to survive.

Key Vocabulary:

air
food
local
space
survive
system
water

Resources:

Trophies: Theme 5

FOSS: Animals Two by Two ALL Investigations

Examples/Activities:

Compare and contrast two animals chosen by an individual student.

Chart similarities and differences of animals selected by all class members.

TOPIC: Animal Families						
Enduring Understanding: Animals need food, water, air and space.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process **Concept 3:** Analysis and Conclusions Organize and analyze data; compare to predictions	**PO 3.** Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics.	E	How do animals live? What are similarities and differences among animals?	Observations Demonstrations		**Health:** **Standard 1, Concept 1** **CH-R7, PO 1** Describe why the body needs food. **CH-R8. PO 1** Select foods that contribute to good health
Strand 4: Life Science **Concept 1:** Characteristics of Organisms Understand that basic structures in plants and animals serve a function	**PO 1.** Distinguish between living things and non-living things	E				
Concept 2: Life Cycles understand the life cycles of plants & animals	**PO 1.** Describe that most plants and animals will grow to physically resemble their parents	E				
Concept 3: Organisms and Environments Understand the relationships among various organisms and their environments	**PO 1.** Identify some plants and animals that exist in the local environment	I				
	PO 2. Identify that plants and animals need the following to grow and survive: food, water, air, space	E				
	PO 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium)	I				

TOPIC: Animal Families

Key Concepts:

Predict results of investigations

Ask questions appropriate to the topic

Classify, compare & sequence objects, organisms, events

Enduring Understanding:

Animals need food, water, air and space.

Student Learning Goal(s):

- The students will participate in and predict results of investigations.

Key Vocabulary:

environment
hypothesis
investigation
living, non-living
organisms
prediction

Resources:

Trophies: Theme 6

FOSS: Animals Two by Two ALL Investigations

Examples/Activities:

Classify/ Sort objects by living vs. non-living

Make bird feeders

Chart similarities and differences of animals selected by all class members.

Design a model of an animal habitat

Compare and contrast two animals chosen by an individual student.

TOPIC: Insects						
Enduring Understanding: Insects have life cycles.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1 Inquiry Process Concept 1: Observations, Questions and Hypotheses Observe, ask questions and make predictions	PO 2. Ask questions based on experiences with objects, organisms, and events in the environments	I	What do we know about insects? What are their observable characteristics? Why are insects important?	Observations	FOSS Content/Inquiry charts (included with each investigation)	
Strand 5 Physical Science Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties	PO 2. Compare objects by the following observable properties: size, color, type of material	E				

TOPIC: Insects

Key Concepts:

- Observable characteristics of insects
- Insect habitat
- Life cycle of an insect
- How spiders differ from insects

Enduring Understanding:

Insects have life cycles.

Student Learning Goal(s):

- The students will learn about insects and the life cycle of an insect.
- The students will learn the difference between a spider and an insect.

Key Vocabulary:

antennae
butterfly
caterpillar
insects
legs
spider
wings

Resources:

- Trophies: Theme 7

Examples/Activities:

- Make a bug collage; bug habitat; bug model
- Investigate the life cycle of insects
- Design a bug zoo
- Investigate spiders

`TOPIC: Earth Materials						
Enduring Understanding: The earth's elements are part of the habitats of living things.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 6: Earth and Space Science **Concept 1:** Properties of Earth Materials Identify the basic properties of earth materials	PO 1. Identify rocks, soil, and water as basic earth materials	E	What is the earth made of?	Observations	www.libsci.sc.Edu/miller/rocks.htm Arizona Rock and Mineral Museum (FREE Rock Boxes to teachers) *Biggest, Strongest, Fastest* by Steve Jenkins *The Mixed Up Chameleon* by Eric Carle *Rumble in the* Jungle by Giles Andreae *The Zoo Book* by Jan Pfloog	
	PO 2. Compare physical properties (e.g., color, texture, capacity to retain water) of basic earth materials	I	How do the objects given to you look and feel?			

TOPIC: Earth Materials

Key Concepts:

Identify basic materials that make up our earth

Observe basic earth materials for color and texture

Enduring Understanding:

The earth's elements are part of the habitats of living things.

Student Learning Goal(s):

- The students will tell the difference between living & non-living things.

Key Vocabulary:

earth
fly
retain water
rocks
soil
swim
walk
water

Resources:

Trophies: Theme 8

Examples/Activities:

Sort/classify animals based on those that walk, swim, fly

Study, investigate, observe rocks, and draw conclusions.

Design animal habitats (including soil, water, basic earth elements)

TOPIC: Recycling and Weather						
Enduring Understanding: Some natural and some man-made materials can be recycled.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 6: Earth and Space Science **Concept 1:** Properties of Earth Materials Identify the basic properties of earth materials	PO 3. Classify a variety of objects as being natural or man-made	I	Which objects are natural and which ones are made by people? What can be recycled and why should we recycle? How does the weather affect me or my family?	Observations	Science Stories *Land, Air and Water*	
	PO 4. Identify ways some natural or man-made materials can be reused or recycled (e.g., efficient use of paper, recycle aluminum cans)	E				
Concept 3: Changes in the Earth and Sky Understand characteristics of weather conditions and climate	PO 3. Give example of how the weather affects people's daily activities	I				

TOPIC: Recycling and Weather

Key Concepts:

Distinguish man-made vs. natural objects.

How we can recycle/reuse paper and aluminum cans.

How the weather affects peoples' lives.

Enduring Understanding:

Some natural and some man-made materials can be recycled.

Student Learning Goal(s):

- The students will learn to tell the difference between things that are natural and things that are man-made.
- The students will learn about recycling cans and paper.
- The students will learn more about how the weather can change our lives.

Key Vocabulary:

affect
breezy
cloudy
man-made
natural
rainy
recycle
reuse
snowy
sunny
weather
windy

Resources:

Trophies: Theme 9

FOSS: Trees
Investigation 1

FOSS: Animals Two by Two
All investigations

FOSS: Wood and Paper
Investigations 1, 3 and 4

Examples/Activities:

Start a recycle project at school

Discuss and analyze major storms

TOPIC: Neighborhood Helpers						
Enduring Understanding: People use science in their daily lives.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 2: History and Nature of Science **Concept 1:** History of Science as a Human Endeavor Identify individual and cultural contributions to scientific knowledge	PO 1. Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life. PO 2. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Jane Goodall [scientist], supports Strand 4; Louis Braille [inventor], supports Strand 4).	I I	Who are some important scientists that have done amazing things?	Observations	Science Story *Story of a Chair, Are You A Scientist?* DELTA Science Readers: People in Science and *Finding the Moon: Neil Armstrong* http://www.teachercreated.com/lessons/020628pt.shtml *Girls Can Be Anything* by Rosalinda Kightly *I Want to be an Astronaut* by Byron Barton; *I'm Going to be a Vet* by Edith Kunhardt *People at Work* by Bobbie Kalman http://www.bloopy.com/bloopymap.htm	**Reading:** **Strand 3, Concept 1** PO 1 Identify the purpose for reading expository text PO 2 Restate facts from listening to expository text PO 3 Respond appropriately to questions based on facts in expository text, heard or read **Social Studies:** **Strand 5,** **Concept 1,** PO 1. Discuss different types of jobs that people do. PO 2. Match simple descriptions of work with the names of those jobs.

TOPIC: Neighborhood Helpers

Key Concepts:

Determine how science is important in our lives

Analyze past scientists and their contributions to science

Enduring Understanding:

People use science in their daily lives.

Student Learning Goal(s):

- The students will tell how people use science in their lives and how people in the past have made important scientific discoveries.

Key Vocabulary:

astronaut

dentists

doctors

Jane Goodall-scientist

Louis Braille-inventor

scientists

vet, veterinarian

Examples/Activities:

Trophies: Theme 10

Examples/Activities:

Invite community scientists to come into classroom (medical people, vets, etc)

School nurse can talk to students about science

Investigate women in science (astronauts, doctors, etc)

TOPIC: Exploring Our Surroundings						
Enduring Understanding: We can measure objects and make guesses about them.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 5: Physical Science Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties	PO 2. Compare objects by the following observable properties: size, color, type of material	E	How do we describe objects that are the same or different?	Observations	DELTA Science Readers *Properties*	**Math: Strand 5, Concept 2,** PO 1 Sort objects according to observable attributes PO 2 Provide rationale for classifying objects according to observable attributes (color, size, shape, weight, etc.)
Concept 2: Position and Motion of Objects Understand spatial relationships and the way objects move	PO 1. Describe spatial relationships (i.e., above, below, next to, left, right, middle, center) of objects	E				

TOPIC: Exploring Our Surroundings

Key Concepts:

Use senses to make observations about materials

Compare objects (size, color, type of material)

Describe spatial relationships

Use non-traditional objects to measure materials

Enduring Understanding:

We can measure objects and make guesses about them.

Student Learning Goal(s):

- The students will use non-standard things to measure objects.
- The students will use my senses to make guesses about objects and their locations.

Examples/Activities:

Measure objects using paperclips, linking cubes, body parts, etc.

"What's in the Bag" guessing game

Ask students to describe locations of objects, (play a blindfold game)

Examples/Activities:

Trophies: Theme 11

FOSS: Trees Investigation 2

Key Vocabulary:

measurement
data collection
shape
texture
size
color
above
below
next to
left, right
middle, center
longer, shorter
organize

TOPIC: Aquatic Animals						
Enduring Understanding: Aquatic plants and animals have the same needs as terrestrial organisms.						
Standard and Related Concept	**Performance Objectives**	**EIN**	**Essential Questions**	**Assessments**	**Supplemental Resources**	**Collaboration and Integration**
Strand 1: Inquiry Process **Concept 1:** Observations, Questions, and Hypotheses Observe, ask questions, and make predictions	PO 3. Predict results of an investigation based on life, physical, and earth and space sciences (e.g., the five senses, changes in weather)	I	What is an underwater world like? Who lives there? What do they need to survive? What changes occur there?		DELTA Science Reader *Observing an Aquarium* http://kindergarten2.homestead.com/ocean.html http://www.kinderkorner.com/underthesea.html http://www.geocities.com/res_kdgn/shells.htm	
Strand 4: Life Science **Concept 3:** Organisms and Environments Understand the relationships among various organisms and their environment.	PO 2. Identify that plants and animals need the following to grow and survive: food, water, air, space	E				
	PO 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium)	I				

TOPIC: Aquatic Animals

Key Concepts:

Identify what animals need to survive underwater

Describe changes in a small system (aquarium, ocean,etc.)

Enduring Understanding:

Aquatic plants and animals have the same needs as terrestrial organisms.

Student Learning Goal(s):

- The students will describe changes observed in a small system like an aquarium.

Key Vocabulary:

system
aquarium
ocean, sea
aquatic
terrestrial

Examples/Activities:

Predict objects that will sink or float in the water

Investigate fish and their body parts

Resources:

Trophies: Theme 12

FOSS: Animals Two by Two Investigations 1 and 2