

Curriculum/TAKS Alignment:

Correlation of Texas Assessment of Knowledge and Skills and the Texas Essential Knowledge and Skills to the BISD Elementary Science Program

Document Contains Alignment of:

- **TAKS Objectives**
- **Texas Essential Knowledge and Skills**
 - **FOSS lessons**
 - **Critical comments and analysis**

Prepared by

Michael Baldwin
Elementary Science Specialist

Curriculum/TAKS Alignment:

Correlation of Texas Assessment of Knowledge and Skills and the Texas Essential Knowledge and Skills to the BISD Elementary Science Program

Document Contains Alignment of:

- **TAKS Objectives**
- **Texas Essential Knowledge and Skills**
 - **FOSS lessons**
 - **Critical comments and analysis**



Yellow tab indicates objective where over 30% of BISD students missed a question



Blue tab indicates an objective where FOSS materials could be supplemented



Green tab indicates an objective that is developed in the Landforms kit

Prepared by

Michael Baldwin
Elementary Science Specialist

Texas Assessment of Knowledge and Skills

Objective 1: Students will demonstrate an understanding of the nature of science.

Student expectation:

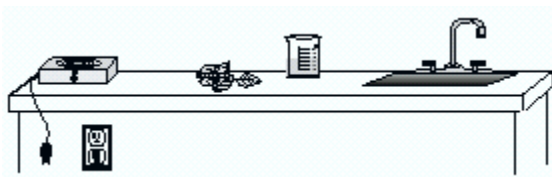
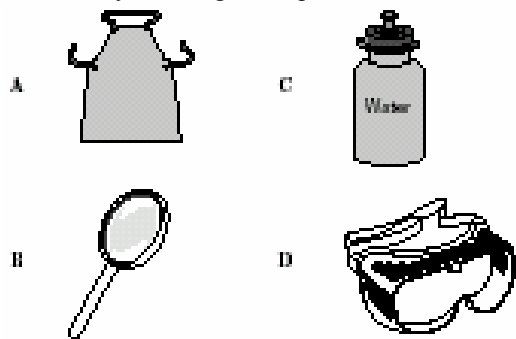
(3.1, 4.1, 5.1) The student conducts field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices.

(A) Student expectation: demonstrate safe practices during field and laboratory investigations

1. Which of the following would be safe to do during a lab activity?

- A Running in the classroom
- B Leaving a water spill on the floor
- C Touching hot surfaces
- D* Following lab rules**

Students are doing an experiment in science class. Which piece of equipment will best protect the students' eyes during the experiment?



When entering the classroom, a student sees a lab setup. What should the student do next?

- A Turn on the water faucet
- B Cut the leaves into small pieces to prepare for the experiment
- C Organize the lab equipment so everything is ready to begin
- D* Wait for the teacher to give instructions**

(A) Student expectation: demonstrate safe practices during field and laboratory investigations(continued)



FOSS Modules:

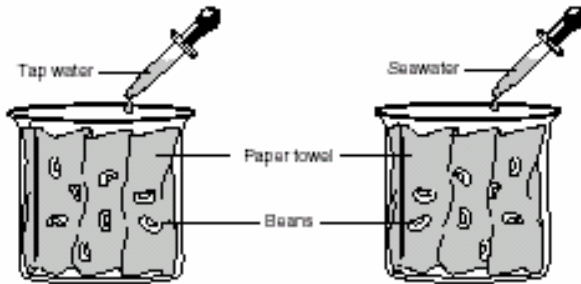
FOSS Module	FOSS Investigation/part	FOSS Assessment
Solar Energy (Grade 5)- Overview	Overview(pg 17): Safety in the Classroom	
Mixtures and Solutions (Grade 5)	Overview (pg. 17) Investigation 1/ Part 1 Investigation 2/Part 4 Investigation 4/Part 1 Investigation 4/Part 3	
Environments (Grade 5)	Overview (pg. 17) Investigation 4/Part 2	
Models and Designs (Grade 5)	Overview (pg. 17) Investigation 2/Part 1 Investigation 3/Part 2 Investigation 4/Part 1	

**Program needs supplemental assessments for Science Safety.

5.2 The student uses the scientific methods during field and laboratory investigations.



(A) plan and implement descriptive and simple experimental investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology.

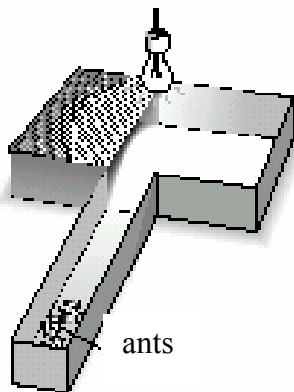


14 Which of these questions can be answered from the results of this experiment?

- F Do beans need light in order to grow?
- G Can beans grow faster in groups of eight?
- H* Does seawater affect bean growth?
- J How much water is needed for beans to grow?

25 Which of these would be the best way to find whether a softball will roll down a hill faster than a basketball?

- A Determining which of the balls has the greater mass
- B* Observing the balls rolling down the same section of a hill at the same time
- C Throwing the balls into the air at the same time to see which goes higher
- D Dropping the balls from the same height and observing which hits the ground first



37 This experiment was probably set up to answer which of the following questions?

- A What is the mass of the ants?
- B* Will ants go to a dark or a light area?
- C How many kinds of ants are there?
- D Where do ants get food?

Kimchi is a Korean food made from cabbage, garlic, pepper, and salt. Some students made kimchi as part of a social studies lesson. They layered the ingredients in a two-liter jar until it was full. Then the students sealed the jar. After a few hours the jar began to fill with liquid. The students guessed that the liquid was coming from the cabbage. In their science class the students decided that they would conduct an investigation to find out what caused the liquid to leave the cabbage.



Which change in the investigation would have best helped the students find out what caused the liquid to leave the cabbage?

- A Using jars of different sizes
- B Using different amounts of cabbage
- C Leaving out one ingredient at a time
- D Replacing the cabbage with other vegetables

(A) plan and implement descriptive and simple experimental investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology.

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Solar Energy (Grade 5)	Investigation 3/ Part 1 Investigation 4/Part 3 Investigation 4/ Part 4	Investigation 3/Part 1, Observation or Journal Investigation 4/ Part 3, Observation or Journal Investigation 4/ Part 4 SS # 25
Mixtures and Solutions (Grade 5)	Investigation 2/ Part 3 Investigation 3/Part 3 Investigation 4/ Part 4	Investigation 2/Part 3 Journal Investigation 3/ Part 3 Journal Investigation 4/Part 4 SS # 14 End of Module Performance Assessment SS #'s 7 & 8 End of Module Assessment #'s 11, 14
Environments (Grade 5)	Investigation 2/ Part 1, 2, and 3 Investigation 3/Part 1, 2, and 3 Investigation 4/ Part 1, 2, and 3 Investigation 5/ Part 1, 2, and 3 Investigation 6/ Part 1, 2, and 3	Investigation 2/Part 4, SS # 7 Investigation 5/Part 3, Journal Investigation 5/Part 3, SS #18 Investigation 6/ Part 3, SS #21 End-of-Module Assessment #'s 17, 19, 23 Portfolio (see FOSS rubric)
Models and Designs (Grade 5)	Investigation 3/ Part 1, 2 and 3 Investigation 4/Part 1, 2 and 3	Investigation 2/Part 2, rubric Investigation 3/Part 2, SS # 11 Investigation 4/ Part 1, SS # 12 Investigation 4/Part 2, SS # 14 Investigation 4: No. 16 Investigation 4: Presentation rubric End-of-Module Assessment #'s 5, 6, 17

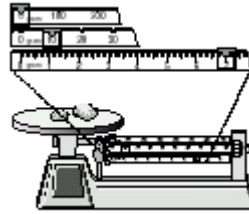
5.2 The student uses the scientific methods during field and laboratory investigations.

(B) collect information by observing and measuring



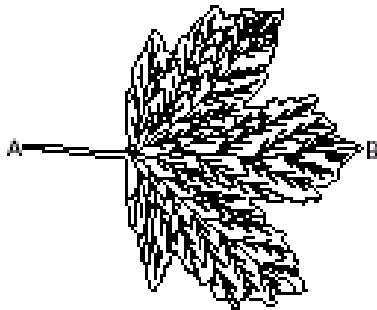
7 What is the approximate diameter of this coin?

- A 2 millimeters
- B* 2 centimeters**
- C 2 meters
- D 2 kilometers

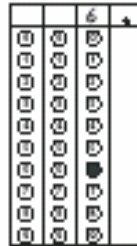


39 What is the mass of these rocks?

- A 10 grams
- B* 17 grams**
- C 19 grams
- D 22 grams



Using the centimeter ruler, measure the length of this leaf from Point A to Point B to the nearest centimeter. Record and bubble in your answer on the answer document.



FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Solar Energy (Grade 5) (temperature)	Investigation 2/Part 1 Investigation 2/Part 2 Investigation 3/Part 1 Investigation 3/Part 2	Investigation 2/Part 1, SS# 7, 8 Investigation 2/Part 2, SS# 10 Investigation 3/Part 1,2, 3, SS# 14, 15, 16 Investigation 4/Part 1 SS#, 21 End-of Module Assessment #'s 1, 11
Mixtures and Solutions (Grade 5) (mass, volume)	Investigation 1/Part 2 Investigation 2/ Part 1 Investigation 3/Part 1 Investigation 4/Part 1	Investigation 1/Part 2, SS# 4 Investigation 2/Part 1, SS# 8 Investigation 3/Part 2, SS# 12, 13
Environments (Grade 5) (length, volume)	Investigation 1/Math Extension Investigation 2/Math Extension Investigation 3/Part 2 Investigation 3/Part 3 Investigation 4/Math Extension	Investigation 3/Part 2, SS# 10 Investigation 3/Part 3, SS# 12 Investigation 4/Math Extension, SS 26
Models and Designs (Grade 5) (length)	Investigation 3/Part 2 Investigation 3/Part 3 Investigation 3/Math Extension, SS# 20	End-of-Module Assessment, # 12

5.2 The student uses the scientific methods during field and laboratory investigations.

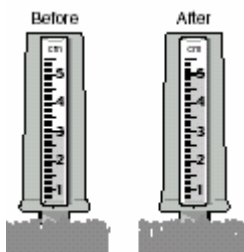


(C) analyze and interpret information to construct reasonable explanations from direct and indirect evidence;



17 This diagram represents water in a container. What process is taking place?

- A Freezing
- B Condensation
- C Melting
- D* Evaporation



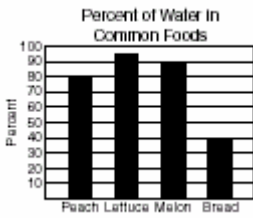
20 This plastic rain gauge is shown before and after a rainstorm. About how much rain in centimeters fell in the rain gauge during the storm? Record and bubble in your answer on the answer document.

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Solar Energy (Grade 5)	Investigation 1: Part 2 Investigation 4/Part 2 Investigation 1/Math Extension Investigation 2/Math Extension	Investigation 1/Part 2 SS# 5 Investigation 4/Part 2, SS# 23 Investigation 4/Math Extension, SS# 35 Investigation 2/Math Extension SS# 33 End-of-Module Performance Assessment End-of-Module Assessment #'s 14, 15, 16,19
Mixtures and Solutions (Grade 5)	Investigation 2/Part 2 Investigation 2/Part 3 Investigation 3/Part 1 Investigation 4/Part 1	Investigation 2/Part 2, SS# 9 Investigation 2/Part 3, SS# 10 Investigation 3/Part 1, SS# 11 Investigation 4/Part 1, SS# 15 Investigation 4/Math Extension SS# 23 End-of-Module Assessment # 11
Environments (Grade 5)	Investigation 3/Part 2 Investigation 4/Part 1	Investigation 3/Part 2 SS# 11 Investigation 4/Part 1 SS#14 Investigation 3/Math Extension SS# 25 Investigation 4/Math Extension SS#26 Investigation 5/Math Extension SS#27 Investigation 6/Math Extension SS#28 Investigation 3/Home School Connection SS# 31 End-of-Module Assessment #'s 8, 12,, 16, 17, 20
Models and Designs (Grade 5)	Investigation 1/ Part1, 2, 3 Investigation 2/ Part 1, 2, 3 Investigation 3/ Part 1, 2, 3	Investigation 1/Part 2, SS# 4 Investigation 2/Part 1, SS# 8 Investigation 2/Math Extension SS #19

5.2 The student uses the scientific methods during field and laboratory investigations.

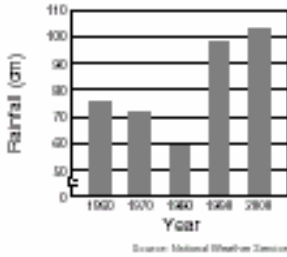
(D) communicate valid conclusions; and



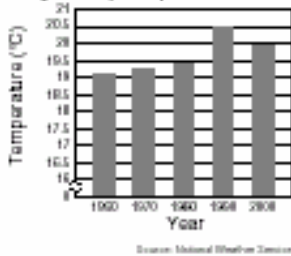
33 What conclusion can be drawn from this graph?

- A* A peach contains a lower percent of water than lettuce.
- B Lettuce contains a lower percent of water than bread.
- C A melon contains a higher percent of water than the other foods.
- D Bread contains the highest percent of water.

Average Yearly Rainfall in Waco, Texas



Average Yearly Temperature in Waco, Texas



What do the graphs suggest about the average yearly rainfall and the average yearly temperature in Waco, Texas?

- A Years with lower average rainfall are warmer.
- B Years with lower average temperature have more rainfall.
- C The average temperature is not related to the average rainfall.
- D The average rainfall and the average temperature do not depend on the number of cloudy days.

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Solar Energy (Grade 5)	Investigation 2/Part 2 Investigation 3/Part 2 Investigation 4/Part 4	Investigation 2/Part 2, SS# 12 Investigation 3/Part 2, SS# 18 Investigation 4/Part 4, Presentation Investigation 1/Math Extension, SS# 31 Investigation 2/Math Extension, SS# 33 End-of-Module Assessment/Performance Assessment End-of Module Assessment #'s 3, 19

(continued)

5.2 The student uses the scientific methods during field and laboratory investigations.

(D) communicate valid conclusions; and

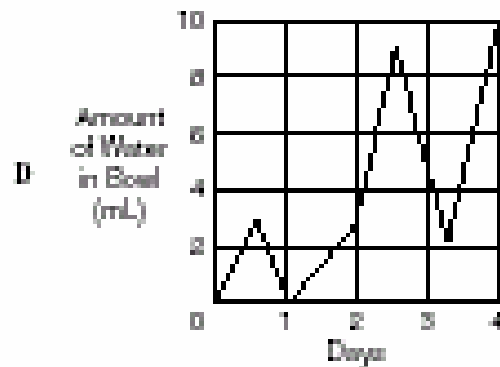
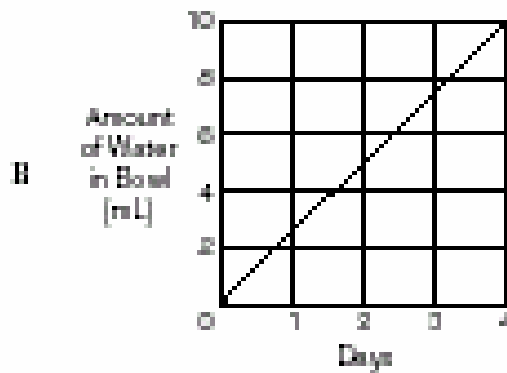
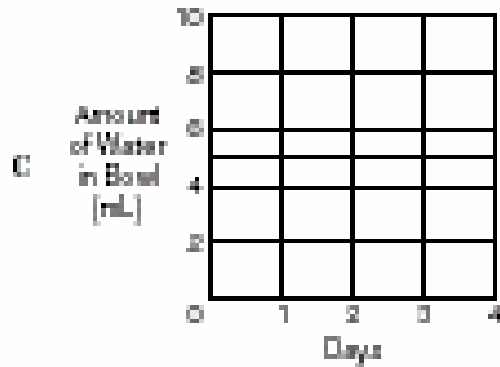
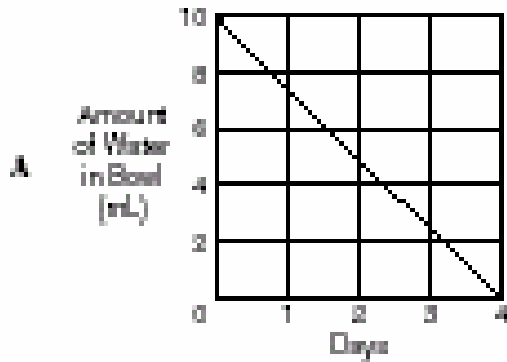
Mixtures and Solutions (Grade 5)	Investigation 1/Part 1 Investigation 1/Part 2 Investigation 2/Part 2 Investigation 3/Part 2 Investigation 4/Part 2 Investigation 4/Part 4	Investigation 1/Part 1, SS# 3 Investigation 1/Part 2, SS# 4 & 5 Investigation 2/Part 2, SS# 9 Investigation 3/Part 2, SS# 13 Investigation 4/Part 2, SS# 16 Investigation 4/Presentation Investigation 3/Math Extension, SS# 22 Investigation 4/Math Extension, SS# 23 End-of-Module Assessment, #'s 11, 12, 15
Environments (Grade 5)	Investigation 2/ Part 2 Investigation 3/Part 2 Investigation 4/Part 2 Investigation 6/Part 2, 4	Investigation 2/Part 2, SS# 6 Investigation 3/Part 2, SS# 11 Investigation 4/Part 2, SS# 16 Investigation 6/Part 2, SS# 19 Investigation 6/Part 4 Presentation Investigation 1/Math Extension SS# 23 Investigation 2/Math Extension SS# 24 Investigation 3/Math Extension SS# 25 Investigation 6/Math Extension, SS# 28 Home/School Connection SS# 29 Home/School Connection, SS# 31 End-of-Module Assessment #'s 10, 12, 16, 17, 18, 19, 20, 22, 25, 27
Models and Designs (Grade 5)	Investigation 1/Part 4 Investigation 3/Part 3 Investigation 4/Part 1 Investigation 4/Part 2 Investigation 4/Part 3	Investigation 1/Part 4, SS# 4 Investigation 4/Part 1, SS#12 Investigation 4/Part 2, SS# 14 Investigation 4/Part 3, Presentation Investigation 1/Math Extension SS# 18 Investigation 4/Math Extension SS# 21 End-of-Module Performance Assessment End-of-Module Assessment #'s 3, 18 Portfolio Rubric, Assessment sheet # 14



5.2 The student uses the scientific methods during field and laboratory investigations.

(E) construct simple graphs, tables, maps, and charts using tools [including computers] to organize, examine, and evaluate information.

29 An uncovered bowl of water was placed in the refrigerator. Each day the amount of water left in the bowl was recorded. Which graph probably shows the results?



Observations

	Plant 1	Plant 2
Type of Plant	Marigold	Marigold
Container	Small clay pot	Small clay pot
Location of Container	Indoors	Indoors
Hours of Sunlight Each Day	8 hours	1 hour
Amount of Water Each Day	5 milliliters	5 milliliters
Temperature	Constant 25°C	Constant 25°C
Starting Height	10 centimeters	10 centimeters
Ending Height	35 centimeters	15 centimeters

A student grew two plants in science class. The student recorded observations in the table above. Based on the student's observations, what is the most likely reason that Plant 1 grew taller than Plant 2?

- A Plant 1 received more sunlight than Plant 2.
- B Plant 1 received more fresh air than Plant 2.
- C Plant 1 had more space to grow than Plant 2.
- D Plant 1 required less water to grow than Plant 2.

(continued)

5.2 The student uses the scientific methods during field and laboratory investigations.

(E) construct simple graphs, tables, maps, and charts using tools [including computers] to organize, examine, and evaluate information.

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Solar Energy (Grade 5)	Investigation 1/Part 2 Investigation 2/Part 2 Investigation 3/Part 2	Investigation 1/Part 2, SS# 5, 11 Investigation 2/Part 2, SS# 12 Investigation 3/Part 2, SS# 17, 18 Investigation 1/Math Extension SS# 31 Investigation 2/Math Extension SS# 33 Investigation 4/Math Extension SS# 35 Investigation 1/Home/School Connection Investigation 2/Home/School Connection Investigation 3/Home/School Connection End-of-Module Performance Assessment End-of Module #'s 3, 14, 16
Mixtures and Solutions (Grade 5)	Investigation 2/Part 3 Investigation 3/Part 3 Investigation 4/Part 4	Investigation 2/Part 3, SS#10 Investigation 2/Math Extension, SS#21 Investigation 3/Part 3, Journal Investigation 3/Math Extension, SS# 22 Investigation 4/Part 4, Journal Investigation 4/Math Extension, SS# 23 End-of-Module #'s 11, 15
Environments (Grade 5)	Investigation 1/Part 1 Investigation 2/Part 1 Investigation 2/Part 2 Investigation 2/Part 3 Investigation 2/Part 4 Investigation 3/Part 1 Investigation 3/Part 2 Investigation 3/Part 3 Investigation 4/Part 1 Investigation 4/Part 2 Investigation 5/Part 2 Investigation 5/Part 3 Investigation 6/Part 2 Investigation 6/Part 3	Investigation 1/Part 1, SS# 3 Investigation 1/Part 1, Journal Investigation 2/Part 1, Journal Investigation 2/Part 2, Journal Investigation 2/Part 3, Journal Investigation 2/Part 4, Journal Investigation 3/Part 1, Journal Investigation 3/Part 2, SS# 10 Investigation 3/Part 3, SS# 12 Investigation 3/Math Extension, SS# 25 Investigation 3/Home-School, SS# 31 Investigation 4/Part 1, SS#14 Investigation 4/Part 2, SS# 15 Investigation 5/Part 2, SS# 17 Investigation 5/Part 3, Journal Investigation 6/Part 2, SS# 10, 12 Investigation 6/Part 3, Journal Investigation 6/Math Extension, Journal End-of-Module, #'s 8, 12, 20, 22, 27
Models and Designs (Grade 5)	Investigation 1/Part 1 Investigation 1/Part 2 Investigation 2/Part 1	Investigation 1/Part 1, Journal Investigation 1/Part 2, SS# 4 Investigation 2/Part 1, SS# 8 Investigation 3/Math Extension, SS# 20 End-of-Module, #'s 2, 4, 18

(3.3, 4.3, 5.3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to

(A) analyze, review, [and critique] scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information;

Which statement is best supported by fossil evidence?

- A The types of animals on Earth have changed over time.
- B Human activities have been the main cause of all extinctions.
- C The environment has remained the same over time.
- D Natural disasters have sometimes destroyed all life on Earth.

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Measurement	Investigation 1/Part 1 Investigation 2/Part 1 Investigation 3/Part 1 Investigation 4/Part 1	Investigation 1/Part 1, Class Discussion Investigation 2/Part 1, Journal Investigation 3/Part 1, Journal Investigation 4/Part 1, Journal End-of-Module # 30
Earth Materials	Investigation 2/Part 2	Investigation 2/Part 2, SS# 15 End-of-Module #16
Structures of Life (Grade 3)	Investigation 2/Part 2	Investigation 2/Part 2, SS# 8 End-of-Module, # 19
Electricity & Magnetism (Grade 3) (Grade 3)	Investigation 1/Part 3	Investigation 1/Part 3, SS# 5
Human Body (Grade 4)	Investigation 2/Part 3 Investigation 3/Part 2	Investigation 2/Part 3, SS# 12 Investigation 3/Part 2, SS# 17 End-of-Module # 23
Physics of Sound	Investigation 2/Part 3 Investigation 3/Part 1	Investigation 3/Part 3, SS# 10 Investigation 3/Part 1, SS# 15
Water	Investigation 1/Part 3 Investigation 3/Part 2	Investigation 1/Part 3, SS# 5 Investigation 3/Part 2, SS# 11 End-of-Module # 22
Solar Energy (Grade 5)	Investigation 2/Part 2	Investigation 2/Part 2, SS# 12
Mixtures and Solutions (Grade 5)	Investigation 1/Part 2 Investigation 2/Part 2 Investigation 4/Part 2	Investigation 1/Part 2, SS# 5 Investigation 2/Part 2, SS# 9 Investigation 4/Part 2, SS# 16 End-of-Module, #'s 13, 15
Environments (Grade 5)	Investigation 1/Part 2 Investigation 2/Part 2 Investigation 3/Part 2 Investigation 4/Part 2 Investigation 6/Part 2	Investigation 1/Part 2, SS# 4 Investigation 2/Part 2, SS# 6 Investigation 3/Part 2, SS# 11 Investigation 4/Part 2, SS# 16 Investigation 6/Part 2, SS# 19 End-of-Module, #'s 17, 22, 24
Models and Designs (Grade 5)		End-of-Module # 18

(3.3, 4.3, 5.3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to

(B) draw inferences based on information [related to promotional materials] for products and services; and

Nutritional Information	Nutritional Information	Nutritional Information	Nutritional Information
Calories: 170 Fat: 1 g Sodium: 200 mg	Calories: 210 Fat: 3 g Sodium: 220 mg	Calories: 200 Fat: 1 g Sodium: 23 mg	Calories: 200 Fat: 4 g Sodium: 200 mg
Q	R	S	T

5 Which of these foods would be the best choice for someone on a low-fat, low-sodium diet?

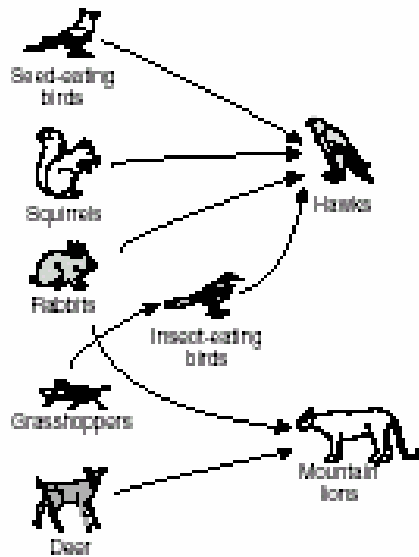
- A Q
- B R
- C * S
- D T

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Measurement	Science Story “ <i>Measurement in the Marketplace</i> ”	
Electricity & Magnetism (Grade 3) (Grade 3)	Investigation 2/Math Extension Investigation 3/Part 3	Investigation 2/Math Extension, SS# 30 Investigation 3/Part 3 SS # 17
Solar Energy (Grade 5)	Investigation 3/Math Extension Investigation 3/Home-School	Investigation 3/Math Extension, SS# 34 Investigation 3/Home-School, SS# 38
Mixtures and Solutions (Grade 5)	Investigation 3/ Math Extension Investigation 3/Science Extension	
Models and Designs (Grade 5)	Investigation 2/Art Extension	

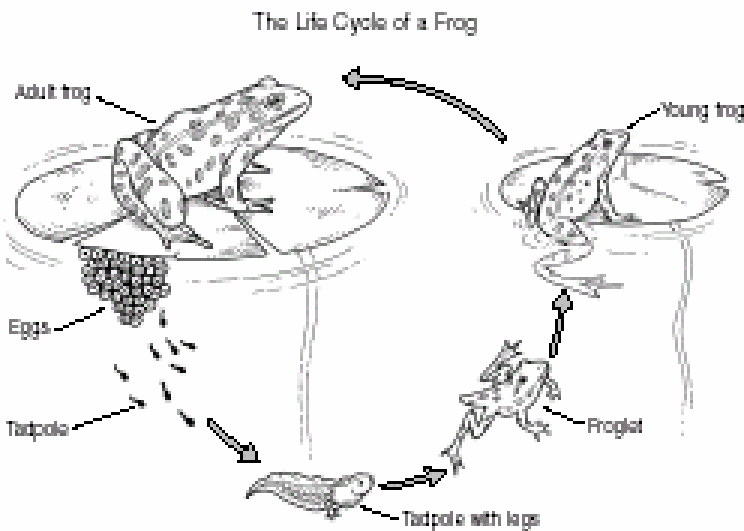
(3.3, 4.3, 5.3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to

(C) represent the natural world using models and identify their limitations.



This model is an incomplete food web. This drawing could be made more complete by —

- A* including producers, such as grasses
- B changing the direction of the arrows
- C including nonliving things, such as rocks
- D connecting each organism to all the other organisms



The drawing of the frog's life cycle is a type of model. This model could be improved by —

- A reversing the direction of the arrows
- B switching the froglet and the young frog
- C numbering the stages, starting with the tadpoles
- D* showing how much time passes between the stages

(continued)

(3.3, 4.3, 5.3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to

(C) represent the natural world using models and identify their limitations.

FOSS Modules:

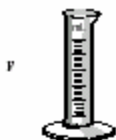
FOSS Module	FOSS Investigation/part	FOSS Assessment
Earth Materials	Investigation 1/Part 1 Investigation 1/Part 3	
Structures of Life (Grade 3)		End-of-Module # 21
Electricity & Magnetism (Grade 3)	Investigation 3/Part 3 Investigation 4/Part 2	Investigation 3/Part 3 SS # 17 Investigation 4/Part 2, SS# 19
Human Body (Grade 4)	Investigation 3/Part 1 Investigation 3/Part 2 Investigation 3/Part 3	End-of-Module #16-17
Solar Energy (Grade 5)	Investigation 1/Part 2 Investigation 2/Part 2 Investigation 3/Part 1 Investigation 4	Response #18, 19, 22
Environments (Grade 5)	Investigation 1/Part 1 Investigation 4	
Models and Designs (Grade 5)	Investigation 1/Parts 1-3 Investigation 2/Parts 1-3 Investigation 3/Parts 1-3 Investigation 4/Parts 1-3 Science Stories: <i>Everyday Mysteries</i>	Investigation 1, SS# 4 Investigation 2, SS# 8 Investigation 3, SS# 11 Investigation 4, SS# 14 End-of-Module, #'s 2, 6, 7, 8, 10, 18,

(5.4) The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to



(A) collect and analyze information using tools including calculators, microscopes, [cameras, sound recorders, computers,] hand lenses, rulers, thermometers, compasses, balances, [hot plates,] meter sticks, timing devices, magnets, collecting nets, and safety goggles.

4 What tool is used to find the temperature at which water boils?



FOSS Modules:

FOSS Module	Equipment Used	
Solar Energy (Grade 5)	Compasses, magnetic Flashlights Clock or watch Earth globe	Plastic cups (250 ml) Thermometers Ruler
Mixtures and Solutions (Grade 5)	Evaporating dishes Balances Hand lenses	Metric spoons Beakers syringes
Environments (Grade 5)	Fish net Beakers Meter tape balances	Aquarium Hand lenses Thermometer
Models and Designs (Grade 5)	Beakers Scissors Funnel motors	Meter tapes Pliers d-cells

Equipment not included: calculators, microscopes, and safety goggles.

Objective 2: The Student will demonstrate an understanding of the life sciences.

(5.10) The student knows that likenesses between offspring and parents can be inherited or learned. The student is expected to

(A) identify traits that are inherited from parent to offspring in plants and animals; and

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Insects (Grade 2)	Science Stories: "Variation"	
Structures of Life (Grade 3)	Investigation 2/Part 3 Investigation 3/Part 3 Investigation 3/Part 4 Investigation 4/Part 2 Science Stories: <i>Barbara McClintock</i> <i>Answering Kids' Questions</i> <i>Life Cycle of a Crayfish</i> <i>Crayfish, Snails, and Kids</i>	Investigation 2/Part 3 Investigation 3/Part 3 SS# 15 Investigation 3/Part 4 Investigation 4/Part 2, Journal End-of-Module Performance Assessment End-of-Module #'s 6, 7,
Environments (Grade 5)	Science Stories: <i>Beetles</i> <i>The Darkling Beetle</i> <i>Isopod</i>	

(5.10) The student knows that likenesses between offspring and parents can be inherited or learned. The student is expected to



(B) give examples of learned characteristics that result from the influence of the environment.

23 Raccoons living in cities have learned to open lids of garbage cans. This is an example of an animal —

- A* adapting to its environment
- B inheriting the ability to change its diet
- C being tamed by humans
- D becoming a plant eater



Coyotes learn some of their behaviors as they move around in their environment. Which behavior is most likely learned?

- A Running
- B Drinking water
- C* Avoiding cacti
- D Sleeping

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Investigation 3/Part 3 Investigation 3/Part 4 Investigation 4/Part 3	Investigation 3/Part 4 SS# 14 Investigation 4/Part 3 SS#'s 17, 18 End-of-Module Performance Assessment End-of-Module #'s 12, 17
Human Body (Grade 4)	Science Stories: <i>Space Race</i> <i>Smart Training</i>	
Environments (Grade 5)		

Behaviors are studied more in 3rd Grade Structures of Life (Grade 3). Learned behaviors are characteristic of higher organisms with large brains. In most animals, behaviors are significantly instinctual (they are not learned) or they are a combination of learned and instinct. To teach this concept it would be better to talk about people or possibly pets.

(5.9) The student knows that adaptations may increase the survival of members of a species. The student is expected to

(A) compare the adaptive characteristics of species that improve their ability to survive and reproduce in an ecosystem;

Prairie Animals



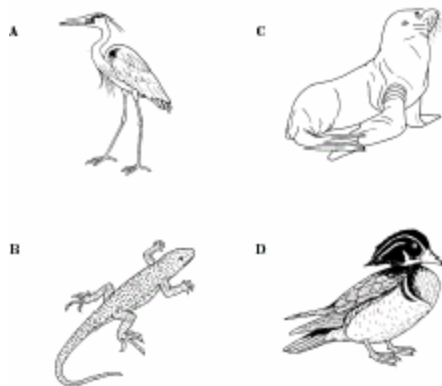
10 Which part of a jackrabbit most helps it escape predators?

- F*** Long legs
- G** Thick fur
- H** Short tail
- J** Small head

28 The African baobab tree has a huge trunk that can store as much as 100 kiloliters of water. This adaptation would be an advantage in a climate that is very —

- F** cold
- G*** dry
- H** windy
- J** sunny

Which animal would most likely be found in a habitat with high temperatures, few plants, and little rainfall?



(continued)

(5.9) The student knows that adaptations may increase the survival of members of a species. The student is expected to

(A) compare the adaptive characteristics of species that improve their ability to survive and reproduce in an ecosystem;

Which of these adaptations makes a tadpole more suited to live in water than on land?

- A Eyes
- B Legs
- C* Gills
- D Lungs

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Investigation 1/Parts 1-3 Investigation 3/Parts 1-4 Investigation 4/Parts 1-4 Science Stories: <i>Life on Earth</i> <i>Crayfish, Snails, and Kids</i>	Investigation 1/Parts 1-3, Journal, SS#'s 2, 3, Investigation 2/ Parts 1-3, Journal, SS#'s 7, 9 Investigation 3/Parts 1-4, Journal, SS#'s 11, 15 Investigation 4/Parts 1-4, Journal, SS#'s 19, 20 End-of-Module, #'s 1, 6, 7, 15, 18, 19, 21
Human Body (Grade 4)	Investigation 1/Part 1 Science Stories: <i>Barn Owls</i> <i>Bones on the Outside</i>	
Water (Grade 4)	Science Stories: <i>The Pond</i>	
Environments (Grade 5)	Investigation 1/Part 1 & 2 Investigation 2/Part 1 Investigation 2/Part 2 Investigation 2/Part 3 Investigation 2/Part 4 Investigation 3/Parts 1-3 Investigation 5/Parts 1-3 Investigation 6/Parts 1-3 Science Stories: <i>Amazon Rainforest Journal</i> <i>Beetles</i> <i>The Darkling Beetle</i> <i>Isopods</i> <i>Aunties Plants</i> <i>Brine Shrimp</i> <i>The Mono Lake Story</i> <i>What Happens When Ecosystems Change</i> <i>*How Organisms Depend on Each Other</i>	Investigation 1/Part 1 & 2, Journal Investigation 2/Part 1, SS# 6, Investigation 2/Part 2, Journal Investigation 2/Part 3, SS# 6 Investigation 2/Part 4, Journal Investigation 3/Parts 1-3, Journal, SS#'s 9, 10, 11 Investigation 5/Parts 1-3, Journal, SS#'s 17, 18 Investigation 6/Parts 1-3, Journal, SS#'s 9, 10, 19 End-of-Module #'s 1, 3, 4, 5, 6, 7, 8, 1, 12, 13, 14, 15, 16, 18, 19



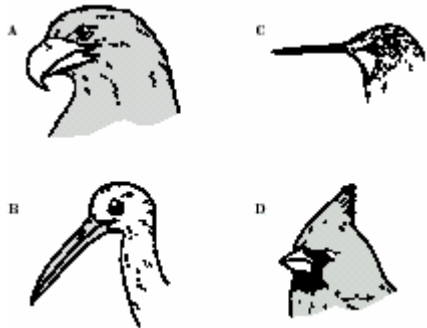
(5.9) The student knows that adaptations may increase the survival of members of a species. The student is expected to

(B) analyze and describe adaptive characteristics that result in an organism's unique niche in an ecosystem; and

6 Some salamanders have a sticky tongue and a wide mouth lined with teeth. These animals most likely feed on —

- F*** Insects and other tiny animals
- G** leaves and other plant structures
- H** algae and other microorganisms
- J** dead and decaying materials

Which bird has a beak that is best adapted for cracking seeds?



Which type of leaf is best adapted for preventing water loss?



(continued)

(5.9) The student knows that adaptations may increase the survival of members of a species. The student is expected to

(B) analyze and describe adaptive characteristics that result in an organism's unique niche in an ecosystem; and

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
New Plants (Grade 1)	Science Stories: <i>Plants and Animals Around the World</i> <i>Animal Teeth</i>	
Structures of Life (Grade 3)	Investigation 1/Part 1 Investigation 1/Part 2 Investigation 3/Part 3 Investigation 4/Part 2 Science Stories: <i>Life on Earth</i>	Investigation 1/Part 1, SS# 2, 6 Investigation 1/Part 2, SS# 3, 4, 5 Investigation 3/Part 3, SS# 14, 15 Investigation 4/Part 2, SS# 18, 19
Water (Grade 4)	Science Stories: <i>The Pond</i>	
Environments (Grade 5)	Investigation 2/Part 3 Investigation 6/Parts 1-3 Science Stories: <i>Amazon Rainforest Journal</i> <i>Darkly Beetles</i> <i>Isopods</i> <i>Brine Shrimp</i>	Investigation 2/Part 3 Investigation 6/Parts 1-3, Journal End-of-Module, #'s 7, 13, 15, 16, 17, 18, 26, 27



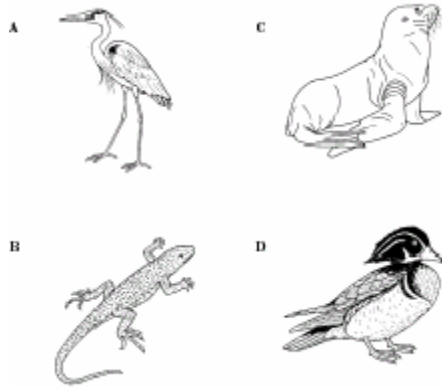
(5.9) The student knows that adaptations may increase the survival of members of a species. The student is expected to

(C) predict some adaptive characteristics required for survival and reproduction by an organism in an ecosystem.

32 Which of the following characteristics would **NOT** give animals an advantage in the ocean?

- F*** Long body hair
- G** A smooth body
- H** Structures that sense movement
- J** A strong sense of smell

Which animal would most likely be found in a habitat with high temperatures, few plants, and little rainfall?

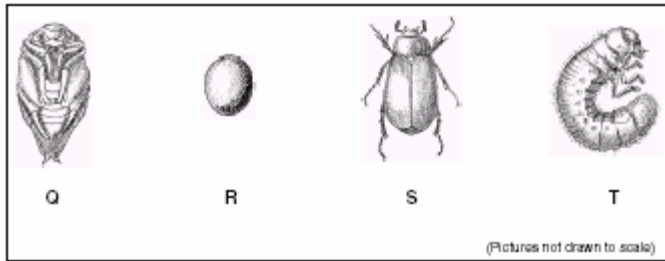


FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Insects (Grade 2)		
Structures of Life (Grade 3)	Investigation 2/Part 2 Investigation 3/Part 1 Investigation 3/Part 4 Investigation 4/Part 1&2 Science Stories: <i>“Life on Earth”, “A Change in the Environment”, “Crayfish, Snails, and Kids”</i>	Investigation 2/Part 2, Journal Investigation 3/Part 1, SS# 11, 12 Investigation 4/Part 1&2, Journal, SS# 18, 19, 20
Water (Grade 4)	Science Stories: <i>The Pond</i>	
Environments (Grade 5)	Investigation 1/Part 2 Investigation 2/Parts 1-4 Investigation 3/Parts 1-3 Investigation 5/Parts 1-3 Investigation 6/Parts 1-3 Science Stories: <i>Amazon Rainforest Journal</i> <i>Terrestrial Environments</i> <i>Around the World</i> <i>Aquatic Environments</i>	Investigation 1/Part 1, Journal Investigation 2/Parts 1-4, Journal, SS# 6 Investigation 3/Parts 1-3, Journal, SS# 11 Investigation 5/Parts 1-3, Journal Investigation 6/Parts 1-3, Journal, SS# 6 End-of-Module, # 4, 6, 7, 13, 15, 22, 25, 26

(5.6) The student knows that some change occurs in cycles. The student is expected to

(C) describe and compare life cycles of plants and animals.



5 The pictures show the stages in the life cycle of a beetle. What would be the correct sequence for the development of the beetle?

- A Q, S, R, T
- B* R, T, Q, S**
- C S, R, Q, T
- D T, S, R, Q

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
New Plants (Grade 1)	Activities 1-4	Activities 1-4, Journal, SS#'s 4, 5, 8, 13
Insects (Grade 2)	Investigation 1-Mealworms Investigation 2-Waxworms Investigation 3-Milkweed Bugs Investigation 4-Silkworms Investigation 5-Butterflies Science Stories: <i>Insect Life Cycles</i>	
Structures of Life (Grade 3)	Investigation 2/Part 3 -Beans Science Stories: <i>Seeds are Everywhere</i> <i>Life Cycle of a Crayfish</i>	Investigation 2/Part 3, SS# 10
Environments (Grade 5)	Investigation 1/Parts 1-2 Investigation 5/Parts 1-3- Brine Shrimp Science Stories: <i>Breeding Plants</i>	Investigation 5/Parts 1-3, Journal, SS# 18 End-of-Module, # 27

(3.8) The student knows that living organisms need food, water, light, air, a way to dispose of waste, and an environment in which to live. The student is expected to

(A) observe and describe the habitats of organisms within an ecosystem;

FOSS Modules:

FOSS Module	FOSS Investigation/Part	FOSS Assessment
Animals 2x2 (Kindergarten)	Activity 1/Part 3 Activity 2/Parts 1&3 Activity 3/Parts 2 & 3 Activity 4/Parts 1&4	Journal
Insects (Grade 2)	Investigation 6	Journal
Structures of Life (Grade 3)	Investigation 3/Part 2 Investigation 4/Part 1& 4 Science Stories: <i>Life on Earth</i> <i>*A Change in the Environment</i> <i>A Snail's Journey</i>	Investigation 3/Part 2 SS# 13 Investigation 4/Part 1& 4, SS#17, 20 End-of-Module, Performance Assessment End-of-Module, # 21
Water (Grade 4)	Science Stories: <i>The Pond</i>	
Environments (Grade 5)	Investigation 1 Investigation 2 Investigation 3 Investigation 4 Investigation 5 Science Stories: <i>Amazon Rainforest Journal</i> <i>Terrestrial Environments Around the World</i> <i>Aquatic Environments</i> <i>Brine Shrimp</i>	End-of-Module, Performance Assessment End-of-Module, #'s 1, 3, 4, 7, 8, 10, 11, 18

***California version of Science Stories**

(3.8) The student knows that living organisms need food, water, light, air, a way to dispose of waste, and an environment in which to live. The student is expected to

(B) observe and identify organisms with similar needs that compete with one another for resources such as oxygen, water, food, or space;



11 On the prairie the herbivores would compete most for —

- A oxygen
- B space
- C* grass
- D soil

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Investigation 1 Investigation 3 Science Stories: <i>*A change in the Environment</i>	
Environments (Grade 5)	Investigation 1 Investigation 2 Investigation 3 Investigation 4 Science Stories: <i>*What is an Ecosystem</i>	Investigation 4, Part 3 Journal Summative Assessment #20

***California version of Science Stories**

(3.8) The student knows that living organisms need food, water, light, air, a way to dispose of waste, and an environment in which to live. The student is expected to

(C) describe environmental changes in which some organisms would thrive, become ill, or perish; and

18 Plants can survive in a clear, closed container without animals. Animals cannot survive in a closed container without plants. Why can't animals survive in a closed container without plants?

- F Plants and animals need water to survive.
- G* Plants produce oxygen, which animals need.
- H Plants take in and give off water; animals only take in water.
- J Plants are stationary; most animals roam freely.

Organisms	Action in the Ecosystem
Plants	Storing water
Bacteria and fungi	Decomposing dead organisms
Earthworms	Making soil less compact
Bees	Polinating flowering plants
Nearly all organisms	Cycling oxygen and carbon dioxide

According to the chart, what would most likely happen in an ecosystem if there were a sudden decrease in the number of bacteria and fungi?

- A The number of plants would increase.
- B The number of bees would increase.
- C* The amount of nutrients in the soil would decrease.
- D The amount of water in the air would decrease.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Investigation 2/Part 2 & 3 Investigation 3/Part 1, 2, 3 Investigation 4/Part 1 Science Stories: <i>Life on Earth</i> <i>*A Change in the Environment</i>	Investigation 2/Part 2 & 3, Journal Investigation 3/Part 1-3, SS# 13 Investigation 4/Part 1, Journal, SS# 17, 18 End-of-Module # 8
Environments (Grade 5)	Investigation 1/Part2 Investigation 3 Investigation 4 Investigation 5 FOSS Science Stories: <i>Auntie's Plants</i> <i>Water Pollution</i> <i>The Mono Lake Story</i> <i>Shrimp Aquaculture</i> <i>*What Happens When Ecosystems Change?</i>	Investigation 1/Part2 Investigation 3 SS# 10 Investigation 4, Journal Investigation 5, Journal Investigation 6 SS# 19 Summative #11-21

***California version of Science Stories**

(3.8) The student knows that living organisms need food, water, light, air, a way to dispose of waste, and an environment in which to live. The student is expected to

(D) describe how living organisms modify their physical environment to meet their needs such as beavers building a dam or humans building a home.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Science Story: <i>A Change in the Environment</i>	
Environments (Grade 5)	Investigation 1/Part 2 Investigation 4/Part 2&3 Science Story: <i>*What Happens When Ecosystems Change?</i> <i>Aquatic Environments</i> <i>*What is an Ecosystem</i> <i>The Mono Lake Story</i>	Investigation 1/Part 2, Journal Investigation 4/Part 2, Journal, SS# 16

***California version of Science Stories**

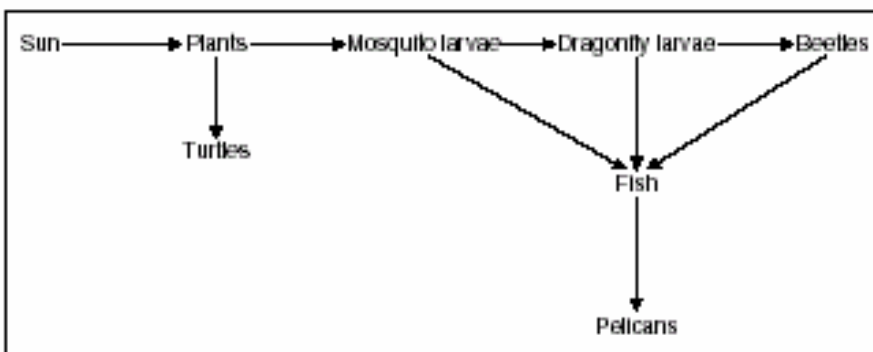
(2.9) The student knows that living organisms have basic needs. The student is expected to

(A) identify the external characteristics of different kinds of plants and animals that allow their needs to be met; and

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Insects (Grade 2)	Investigation 1-Mealworms Investigation 2-Waxworms Investigation 3-Milkweed Bugs Investigation 4-Silkworms Investigation 5-Butterflies Investigation 6-Other Insects Science Stories: <i>What Makes an Insect an Insect?</i>	
Structures of Life (Grade 3)	Investigation 1-Seeds Investigation 2-Plants Investigation 3-Crayfish Investigation 4-Land Snail Science Stories: <i>Inside a Snail's Shell</i>	Investigation 1, SS# 2, 3, 4, 5 Investigation 2, SS# 10 Investigation 3, SS# 11, 12, 15 Investigation 4, SS# 18, 19 End-of-Module, #'s 1, 2, 3, 4, 5, 10, 11, 16, 18, 19
The Human Body (Grade 4)	Science stories: <i>A Marvelous Machine</i> <i>The Shape of Your Shape</i> <i>Barn Owls</i> <i>Your Amazing Opposable Thumb</i> <i>Bones on the Outside</i> <i>The Frozen Man</i>	
Environments (Grade 5)	Investigation 3/Part 3 Investigation 4/Part 3 Science Stories: <i>Amazon Rainforest Journal</i> <i>The Spadefoot Toad</i> <i>Isopods</i> <i>Plankton</i> <i>Brine Shrimp</i>	Science Notebook End-of-Module, #'s 25, 26,

(2.9) The student knows that living organisms have basic needs. The student is expected to (B) compare and give examples of the ways living organisms depend on each other and on their Environments.

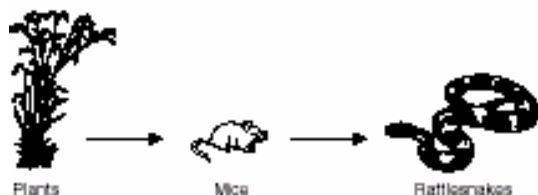


15 If all of the fish are removed from this food web, which animal populations will most likely decrease first?

- A Turtles
- B Mosquito larvae
- C Dragonfly larvae
- D* Pelicans

When students drink milk, they become part of a food chain. What is the original energy source of the food chain that includes the students and the milk?

- A Soil
- B Cows
- C Grass
- D* Sunlight



If all the mice were removed from this simple food chain, the rattlesnakes would most likely —

- A begin to starve
- B start eating plants
- C become producers
- D increase in number

FOSS Modules:

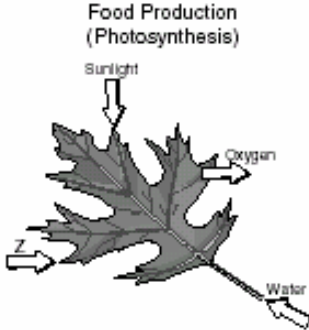
FOSS Module	FOSS Investigation/part	FOSS Assessment
Structures of Life (Grade 3)	Science Stories: *A Change in the Environment The Food Web	
Water (Grade 4)	Science Stories: The Pond	
Environments (Grade 5)	Investigation 1/Part 2 Investigation 4/Part 2&3 Science Stories: *How Organisms Depend on Each Other	Investigation 1/Part 2, Journal Investigation 4/Part 2&3, Journal, SS# 16

*California version of Science Stories



(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to

(A) describe some cycles, structures, and processes that are found in a simple system; and



31 In the diagram above, the label Z represents —

- A sugar
- B* carbon dioxide
- C nitrogen
- D water vapor

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Human Body (Grade 4)	Investigation 1- Skeletal System Investigation 2- Joints Investigation 3- Muscular System Investigation 4- Coordination Science Stories: <i>Circulatory System</i> <i>Muscles and Bones</i>	Investigation 2- Joints, SS# 9, 13 Investigation 3- Muscular System SS# 18 Investigation 4- Coordination, SS# 20 End-of-Module, #'s 1, 2, 3, 6, 8, 9, 13, 14, 15, 16, 17, 18, 19, 21, 24
Water (Grade 4)	FOSS Stories: <i>The Water Cycle</i>	
Environments (Grade 5)	Investigation 1Part 2 Science Stories: <i>*What is an Ecosystem</i>	Investigation 1Part 2, SS# 4 Investigation 3, Part 2, SS# 11 Home/School Connection SS# 32 End-of-Module Assessment SS# 18, 19, 20

***California version of Science Stories**

(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to



(B) describe some interactions that occur in a simple system.

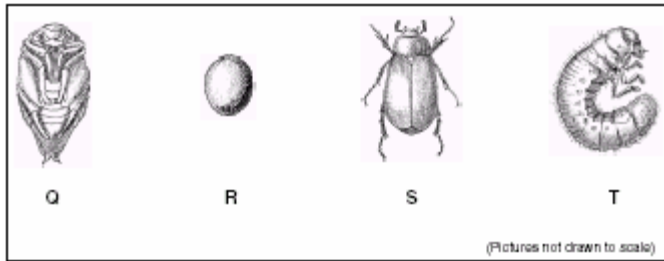
FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Human Body (Grade 4)	Investigation 1 Investigation 2 Investigation 3 Investigation 4 Science Stories: <i>The Broken Radius</i> <i>Your Amazing Opposable Thumb</i> <i>Muscles</i> <i>Muscles and Bones</i> <i>Smart Training</i> <i>The Circulatory System</i>	Investigation 1, Journal Investigation 2, Journal, SS# 9, 12 Investigation 3, Journal, SS# 18 Investigation 4, Journal, SS# 20 End of Module Assessment #'s 6, 7, 8, 9, 10,16, 23, 24, 25
Water (Grade 4)	Science Stories: <i>The Pond</i> <i>The Water Cycle</i>	
Environments (Grade 5)	Investigation 1 Investigation 2 Investigation 3 Investigation 4 Investigation 5 Investigation 6 Science Stories: <i>Aquatic Environments Around the World</i> <i>What is an Ecosystem</i> <i>The Mono Lake Story</i> <i>Breeding Plants</i> <i>*What Happens When Ecosystems Change?</i> <i>*How Organisms Depend on Each Other</i>	Investigation 1, Journal, SS# 4 Investigation 2, Journal Investigation 3, Journal, SS# 11 Investigation 4, Journal, SS# 16 Investigation 6, Journal, SS# 19 End-of-Module Assessment #'s 1, 4, 8, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 24, 25

***California version of Science Stories**

(4.6) The student knows that change can create recognizable patterns. The student is expected to

(A) identify patterns of change such as in weather, metamorphosis, and objects in the sky.



5 The pictures show the stages in the life cycle of a beetle. What would be the correct sequence for the development of the beetle?

- A Q, S, R, T
- B* R, T, Q, S**
- C S, R, Q, T
- D T, S, R, Q

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Insects (Grade 2)	Activity 1 (Mealworms) Activity 2 (Waxworms) Activity 3 (Milkweed bugs) Activity 5 (Butterflies) Activity 6 (Other Insects)	Life of a Mealworm SS# 3 Life cycle of the square Moth ss# 26
Structures of Life (Grade 3)	Investigation 1 Investigation 2	Investigation 1, SS# 3, 4 Investigation 2, SS# 8, 9, 10
Water (Grade 4)	Science Stories: <i>The Pond</i>	
Environments (Grade 5)	Investigation 5 Science Stories: <i>*What Happens When Ecosystems Change?</i> <i>The Mono Lake Story</i>	Investigation 5

***California version of Science Stories**

Objective 3: Students will demonstrate an understanding of the physical sciences.

(5.8) The student knows that energy occurs in many forms. The student is expected to

(A) differentiate among forms of energy including light, heat, electrical, and solar energy;

Unlike battery-powered calculators, solar calculators are powered by solar cells. Which of these energy changes is used to power a solar calculator?

- A Heat energy changing to chemical energy
- B Light energy changing to chemical energy
- C Light energy changing to electrical energy
- D Chemical energy changing to electrical energy

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Magnetism and Electricity	Investigation 2/Part 1 Science Stories: <i>Magnets and Electricity in Your Life</i>	
Physics of Sound	Science Stories: <i>*Energy</i>	
Models and Designs	Science Stories: <i>Early Autos</i>	
Solar Energy (Grade 5)	Investigation 2 Investigation 4 Hot Topic: Finding Out What Heat Is SS# 27 Science Stories: <i>Solar Technology</i> <i>Solar Cookers in Third-World Countries</i> <i>Solar Power From the Wind</i>	Investigation 2, SS# 12 Investigation 4/ SS# 25

***California Version of Science Stories**

(5.8) The student knows that energy occurs in many forms. The student is expected to

(B) identify and demonstrate everyday examples of how light is reflected, such as from tinted windows, and refracted, such as in cameras, telescopes, and eyeglasses;

16 Light traveling through a pair of eyeglasses is —

- F* refracted
- G transmitted
- H absorbed
- J reflected

A student set a glass of water next to an open textbook. When she looked through the glass, the student noticed that the writing in the book looked much bigger. This happened because light from the room was reflected off the textbook and was —

- A reflected off the glass
- B* refracted by the water
- C absorbed by the water
- D sped up by the glass

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Ideas and Inventions	Activity 4/Parts 1-4 Science Stories: <i>Light and Reflection</i> <i>Making Mirrors</i>	Activity 4, SS# 15, Reflecting on the Activity, Journal

(5.8) The student knows that energy occurs in many forms. The student is expected to

(C) demonstrate that electricity can flow in a circuit and can produce heat, light, sound, and magnetic effects; and



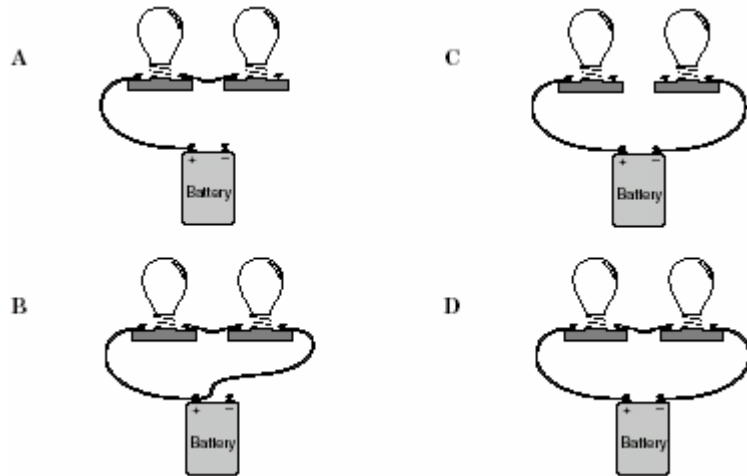
2 The wires connecting the battery and the light bulb create a closed circuit. What would happen if one of these wires were cut?

- F The battery would lose its charge.
- G The glass would crack.
- H* The light would go out.
- J The wire would become hot.

One difference between an electromagnet and a bar magnet is that the magnetic field produced by an electromagnet can —

- A* be turned on and off
- B attract materials such as wood
- C be made permanent
- D have two north poles

Which picture shows a circuit that will light the light bulbs?



Unlike battery-powered calculators, solar calculators are powered by solar cells. Which of these energy changes is used to power a solar calculator?

- A Heat energy changing to chemical energy
- B Light energy changing to chemical energy
- C* Light energy changing to electrical energy
- D Chemical energy changing to electrical energy

(5.8) The student knows that energy occurs in many forms. The student is expected to

(C) demonstrate that electricity can flow in a circuit and can produce heat, light, sound, and magnetic effects; and

FOSS Modules:

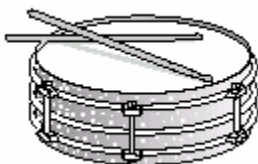
FOSS Module	FOSS Investigation/part	FOSS Assessment
Electricity and Magnetism (Grade 3)	Investigations 2 – 5 Science Story: <i>Magnetism and Electricity in Your Life</i>	Investigation 2, SS# 7, 8, 9, 10, 11, 12 Investigation 3, SS# 15, 16, 17 Investigation 4, SS# 18, 19, 20 Investigation 5, SS# 5 End-of-Module Performance Assessment End of Module #'s 1, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18
Physics of Sound (Grade 4)	Science Stories: <i>*Energy</i>	
Models and Designs (Grade 5)	Investigation 2	Investigation 1/Part 1, Journal-Inquiry Entry

***California Version of Science Stories**

(5.8) The student knows that energy occurs in many forms. The student is expected to



(D) verify that vibrating an object can produce sound.



36 Sound is made when a drumstick hits the drum. This happens because the force of the drumstick on the drum causes —

- F* vibrations
- G electrical currents
- H heat energy
- J a magnetic charge

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
<i>Physics of Sound</i> (Grade 4)	Investigation 1/Part 3 Investigation 2 Investigation 3 Investigation 4 Science Stories: <i>Seeing the World Through Sound</i> <i>Listen to This</i> <i>Your Source and Receiver</i> <i>Highs and Lows</i> <i>Making Waves</i> <i>Sound Off</i> <i>Moving Along</i> <i>Bouncing Back</i> <i>*Energy</i>	Investigation 1/Part 3, SS# 4, 5 Investigation 2, SS# 6, 7, 8, 9, 10 Investigation 3, 11, 12, 13, 14, 15, 16, 17 Investigation 4, SS# 18, 19, 20, 21, 22, 23, 24, 25 End-of-Module Performance Assessment End-of-Module Assessment #'s 2, 3,4, 5, 6, 7, 12
Models and Designs (Grade 5)	Investigation 2 (Building a “humdinger”)	Not overtly taught in 5 th grade, teacher will need to review that vibrations cause the hum

***California Version of Science Stories**

(5.7) The student knows that matter has physical properties. The student is expected to

(A) classify matter based on its physical properties including magnetism, physical state, and the ability to conduct or insulate heat, electricity, and sound;

34 Which of these is a good conductor of electricity?

- F Glass
- G*** Metal
- H Rubber
- J Plastic

38 Which of the following can be attracted to a magnet?

- F Gold ring
- G Glass marble
- H*** Iron needle
- J Wool sock

The river water is a solution because it —

- A is a liquid, which has no definite shape
- B*** contains dissolved minerals and salts
- C carries sand, clay, and other sediment
- D is a compound made up of two elements

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Electricity and Magnetism (Grade 3)	Investigation 1 Investigation 2 Science Stories: <i>Magnus Gets Stuck</i>	Investigation 1, SS # 3, 4, 5, 6 Investigation 2, SS# 7, 10 End-of-Module #'s 5, 7, 8, 11, 12, 15, 18
Physics of Sound (Grade 4)	Investigations 1-4 Science Stories: <i>Moving Along</i> <i>Bouncing Back</i>	Investigation 1, SS# 3 Investigation 1, Journal Investigation 2, SS# 6, 7, 9, 10 Investigation 3, SS# 14, 15, 16, Investigation 4, SS# 18, 19, 20, 23, 24 End-of-Module #'s 6, 7, 9, 10, 11, 13, 15
Water (Grade 4)	Investigation 1 Investigation 2 Investigation 3 Science Stories: <i>Surface Tension</i> <i>Evaporation and Condensation</i>	Investigation 1, SS# 2, 3 Investigation 2, SS# 6, 7, 8, 9 Investigation 3, SS# 10, 11 End-of-Module #'s 1, 3, 4, 6, 7, 9, 10, 11, 12, 14, 16, 21, 22
Mixtures and Solutions (Grade 5)	Investigation 1 Investigation 2 Science Stories: <i>Mixtures and Solutions</i> <i>A Salty Story</i> <i>Earth Elements</i> <i>The Metals</i>	Investigation 1, SS# 2, 3 Investigation 2, SS# 10 End-of-Module #'s 3, 4, 6

(5.7) The student knows that matter has physical properties. The student is expected to

(B) demonstrate that some mixtures maintain the physical properties of their ingredients;

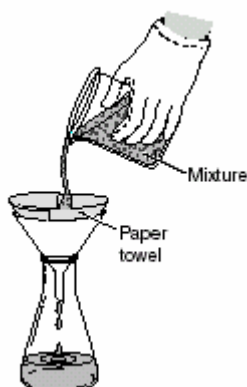
21 In an experiment salt and sand are mixed together. Which of these procedures could be used to most easily separate the salt from the sand?

- A**
- stir the mixture into a glass of water
 - pour the mixture in the glass through a filter
 - evaporate the water

- B**
- pour the mixture onto a piece of paper
 - brush the mixture into a pile
 - drag a magnet through the pile

- C**
- put the mixture in a pan
 - heat the pan for 10 minutes
 - let the hot mixture cool slowly

- D**
- spread the mixture into a thin layer
 - look at the mixture through a magnifying glass
 - separate the crystals with a pin



A student stirs together a mixture of hot water and small amounts of salt, sand, and sugar. The student then pours the mixture through a paper towel. Which substance or substances will collect on the paper towel?

- A** Only the sugar
- B** Only the sand
- C** Both the salt and the sugar
- D** Both the salt and the sand

(5.7) The student knows that matter has physical properties. The student is expected to

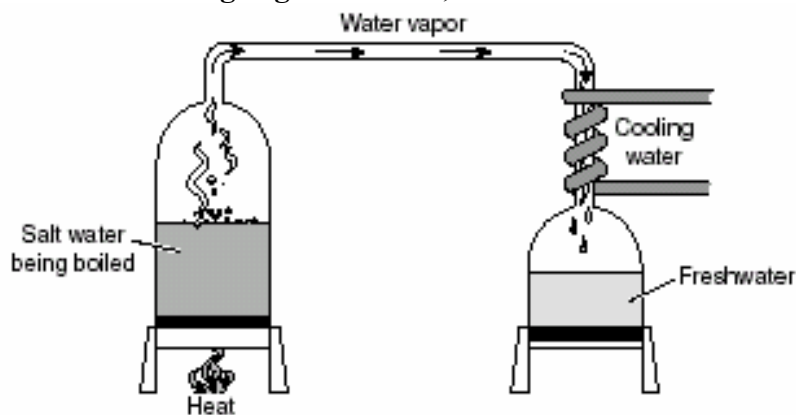
(B) demonstrate that some mixtures maintain the physical properties of their ingredients;

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Mixtures and Solutions (Grade 5)	Investigation 1, Part 1 Investigation 1, Part2 Investigation 1, Part 3 Investigation 1, Part 4 Science Stories: <i>The Air You Breathe</i> <i>Mixtures and Solutions</i>	Investigation 1, Part 1, Journal, SS # 3 Investigation 1, Part2, SS # 5 Investigation 1, Part 3, Journal Investigation 1, Part 4, Journal, SS# 7 Performance Assessment SS # 8 End of Module #'s 1, 2, 11

(5.7) The student knows that matter has physical properties. The student is expected to

(C) identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving sugar in water; and



This experiment shows how salt water can be boiled and made into freshwater. Which statement about solutions is supported by the diagram?

- A The parts of a solution must have the same boiling point.
- B A solution is made up of only one type of particle.
- C A solution is formed when a liquid changes into a solid.
- D* The parts of a solution can be separated by a physical change.

(5.7) The student knows that matter has physical properties. The student is expected to

(C) identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving sugar in water; and

FOSS Modules:

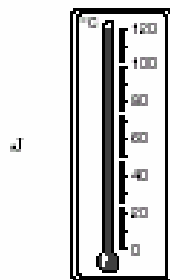
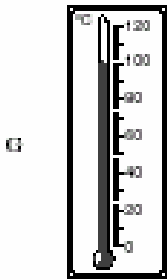
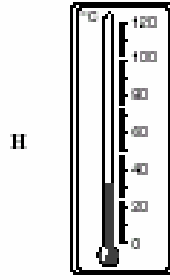
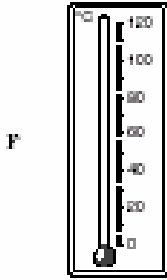
FOSS Module	FOSS Investigation/part	FOSS Assessment
Mixtures and Solutions (Grade 5)	Investigation 1, Part 1-3 Investigation 2, Part 1-4 Investigation 3, Part 1-3 Investigation 4, Part 1-4 Science Stories: <i>Decompression Sickness</i> <i>Sour Power</i> <i>Grow Your Own Crystals</i> <i>The History of Rubber</i>	Investigation 1, Part 1-4, Journal, SS# 5 Investigation 2, Part 1-4, Journal, SS# 9, 10 Investigation 3, Part 1-3 Journal, SS# 13 Investigation 4, Part 1-4, Journal, SS# 16 End of Module Performance Ass. SS# 7, 8 End of Module Assessment #'s 1, 3, 4, 5, 8, 9, 10, 11, 12, 13

(5.7) The student knows that matter has physical properties. The student is expected to



(D) observe and measure characteristic properties of substances that remain constant such as boiling points and melting points.

40 Which of the following thermometers shows the boiling point of water in a pan?



FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Measurement (Grade 3)	Investigation 1- length Investigation 2- Mass Investigation 3- Volume Investigation 4- temperature Science Stories: <i>Fahrenheit and Celsius</i> <i>Everything is Made of Atoms</i>	Investigation 1, SS# 3, 4, 5 Investigation 2, SS# 7, 8, 9 Investigation 3, SS# 10, 11, 12 Investigation 4, SS# 13, 14, End-of-Module #'s 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 15 26, 27, 28, 29
Water (Grade 4)	Investigation 2 Investigation 3 Science Stories <i>Ice is Everywhere</i> <i>Ice History</i>	Investigation 2, SS# 6 Investigation 3, SS# 10

(3.6) The student knows that forces cause change. The student is expected to

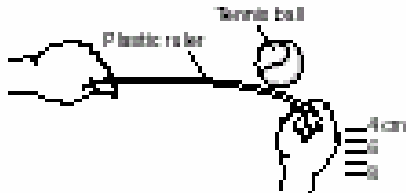


(A) measure and record changes in the position and direction of the motion of an object to which a force such as a push or pull has been applied.

27 A car will skid more on a wet road than on a dry road. This happens because between the tires and the dry road, there is more —

- A gravity
- B magnetism
- C* friction
- D heat

Several students investigated how force affects the distance a tennis ball will travel. The students used the setup below and applied a force to the tennis ball by pulling the ruler back a certain distance.



Distance Ruler Pulled Back (cm)	Distance Tennis Ball Traveled (m)
4	4
5	10
6	12
7	20
8	7

Based on the students' data table, what distance would the tennis ball be expected to travel when the ruler is pulled back 8 centimeters? Record and bubble in your answer to the nearest centimeter on the answer document.



FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Models and Designs (Grade 5)	Levers are not discussed, but could be inserted into a discussion in Investigation 2	Investigation 2-p. 9 Assessment - Teacher Observation
Levers and Pulleys	FOSS Stories: <i>Simple Machines</i> <i>Class 1 Levers</i> <i>Class 2 Levers</i> <i>Class 3 Levers</i> BISD does not have this kit, but the FOSS book would have enough information to cover the objective.	

**** Concept is not well developed in the FOSS kits used by the district.**

(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to

(A) describe some cycles, structures, and processes that are found in a simple system; and

FOSS Modules:

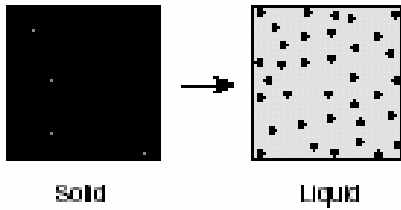
FOSS Module	FOSS Investigation/part	FOSS Assessment
Physics of Sound	Science Stories: <i>Scoping Out Sound</i> <i>Highs and Lows</i> <i>Your Source and Receiver</i> <i>*Energy</i>	Story Questions
Models and Designs (Grade 5)	Investigations 1- 4 Science Stories: <i>Everyday Mysteries</i> <i>Scientists and Models</i> <i>The Path to Invention</i>	Investigation 1, SS # 4 Investigation 2, SS# 8 Investigation 4, SS# 14
Mixtures and Solutions (Grade 5)	Science Stories <i>Earth Elements</i> <i>The Air Astronauts Breathe</i> <i>What is Matter Made of?</i>	

***California Version of Science Stories**

(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to



(B) describe some interactions that occur in a simple system.



8 The picture shows the process of —

- F* melting
- G boiling
- H condensing
- J freezing

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Water (Grade 4)	Science Stories: <i>Evaporation and Condensation</i>	
Mixtures and Solutions (Grade 5)	Science Stories: <i>The Air Astronauts Breathe</i> <i>What is a Reaction?</i>	
Models and Designs (Grade 5)	Investigations 1-4 Science Stories: <i>The Path to Invention</i> <i>Early Autos</i>	Investigation 1, SS # 4 Investigation 2, SS# 8 Investigation 4, SS# 14 End-of-Module #'s 13
Solar Energy (Grade 5)	Investigation 1-4 Science Stories: <i>Solar Technologies</i> <i>Differential Heating</i> <i>Building Time Devices</i>	Investigation 2, SS# 7 Investigation 3, SS# 15, 18 Investigation 4, SS# 22 End-of-Module #'s 4, 5, 6, 7, 10, 12, 13, 14, 16, 17, 18

(4.6) The student knows that change can create recognizable patterns. The student is expected to



(A) identify patterns of change such as in weather, metamorphosis, and objects in the sky.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Ideas and Inventions (Grade 5)	Science Stories: <i>Looking at the Sky</i>	
Solar Energy (Grade 5)	Science Stories: <i>The Sun</i> <i>The Sun and the Weather</i> <i>Building Time Devices</i> <i>*Living With a Star</i> <i>*Terrestrial Planets</i>	

***California Version of the Science Stories**

****Astronomy concepts not well covered in elementary curriculum. Supplemental material needed.**

Objective 4: Students will demonstrate an understanding of the earth sciences.



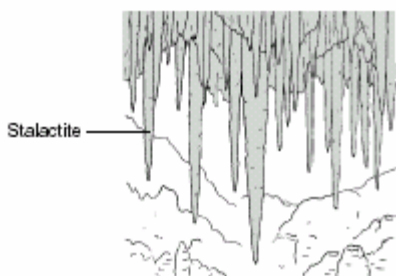
(5.12) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(A) interpret how land forms are the result of a combination of constructive and destructive forces such as deposition of sediment and weathering; and

12 The prairie is ideal for the growth of grasses because it has rich topsoil. All of these processes help form topsoil **EXCEPT** —

- F decay of trees
- G weathering of rocks
- H erosion of hills
- J* movement of oceans



A stalactite is a feature that hangs like an icicle from the roof of a cavern. How do stalactites in limestone caverns most likely form?

- A Glaciers move through the cavern and deposit weathered limestone.
- B Wind blows through cracks in the roof and erodes some of the limestone.
- C An underground river flows through the cavern and dissolves some of the limestone.
- D* Groundwater drips through cracks in the roof and deposits limestone over time.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Earth Materials	Overview Investigation 2, Parts 1,2 Investigation 3, Parts 1,2, 3 Investigation 4, Parts 1,2, 3 Science Stories: <i>Written in Stone</i> <i>*Where Do Rocks Come From?</i>	Notebook Stream table Stream table map
Landforms	Investigation 2, Parts 1, 2 Investigation 3, Parts 1,2, 3 Investigation 4, Parts 1,2, 3 Science Stories: <i>Rivers and Controlling the Flow</i> <i>Earthquakes, Volcanoes, and Mountains</i>	Journal Stream table Investigation 2, SS# 9 Investigation 3, SS# 11 Story questions

***California Version of Science Stories**

(5.12) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(C) identify the physical characteristics of the Earth and compare them to the physical characteristics of the moon.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Water (Grade 4)	Science Stories: <i>Moon Dreams</i>	
Landforms (5 th Grade)	Overview Investigation 1, Part 2, 3 Investigation 3, Part 1, 2, 3 Investigation 4, Part 1, 2, 3 Investigation 5, Part 1, 2, 3, 4	Journal Schoolyard Model SS# 4 Map grid SS # 5 Stream table SS# 9 Go w/flow SS# 11
Ideas and Inventions (5 th Grade)	Science Stories: <i>Looking at the Sky (The Moon)*</i>	

* California Edition

****Structures of the moon are briefly discussed in the California addition of the FOSS readers. The structures of the earth are adequately covered in the FOSS landforms kit, but the comparison to the moon is not present.**

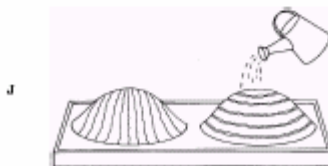
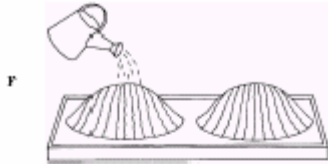
**(5.11) . The student knows that certain past events affect present and future events.
The student is expected to**



(A) identify and observe actions that require time for changes to be measurable, including growth, erosion, dissolving, weathering, and flow;



24 Which experiment would best show how different methods of plowing fields on a hill affect erosion?



A student placed some clean rocks in a clear plastic jar. The jar was filled with clean water and covered with a lid. Then the student shook the jar for five minutes. The student noted that smaller pieces had broken off some of the rocks and that there was a fine grit on the bottom of the jar. Which change of Earth's surface was the student modeling?

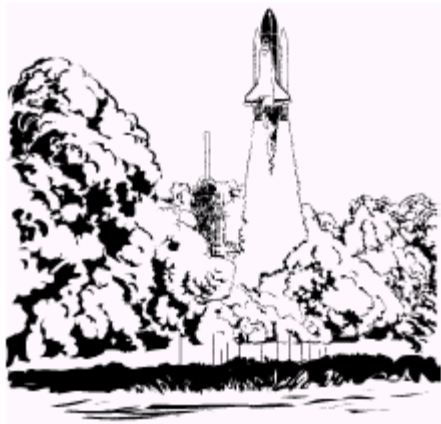
- A* Physical weathering
- B Chemical weathering
- C Erosion of sediments
- D Forming deltas

FOSS Modules:

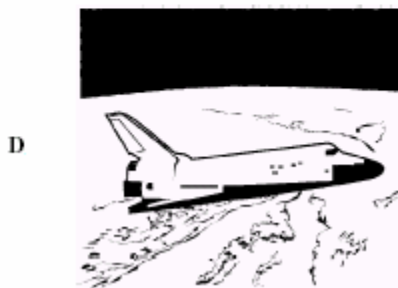
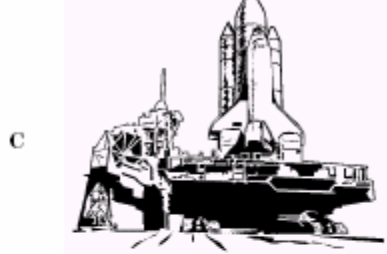
FOSS Module	FOSS Investigation/part	FOSS Assessment
Landforms (Grade 5)	Overview (p. 7) Investigation 2, Parts 1,2 Investigation 3, Parts 1, 2, 3 Investigation 5, Part 3 Science Stories: <i>Real People in the Grand Canyon</i> <i>Rivers and Controlling the Flow</i> <i>Shapes of the Earth</i> <i>The Story of Mount Shasta</i>	Student Notebook Investigation 2, SS# 9 Investigation 3, SS# 11 Investigation 5, SS# 21, 22, 23, 24 Performance Assessment SS #'s 10, 11 End-of-Module Assessment #'s 3, 4, 5, 6, 8, 13

(5.11). The student knows that certain past events affect present and future events. The student is expected to

(B) draw conclusions about "what happened before" using data such as from tree-growth rings and sedimentary rock sequences; and



Which of the pictures below shows what happened just before the shuttle in this picture took off?



FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Environments (Grade 5)	Investigation 3	Investigation 3, SS# 11 End-of-Module Assessment #'s 20, 21
Solar Energy (Grade 5)	Overview Investigation 2 Science Story:	Science Notebook Investigation 2, SS# 9 Investigation 2, SS# 10 End-of-Module Assessment # 14, 18
Models and Designs (Grade 5)	Science Stories: <i>Life on Earth 150 Million Years Ago</i>	
Landforms (Grade 5)	Science Stories <i>Rivers and Controlling the Flow</i> <i>Shapes of the Earth</i>	

**(5.11). The student knows that certain past events affect present and future events.
The student is expected to**

(C) identify past events that led to the formation of the Earth's renewable, non-renewable, and inexhaustible resources.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Earth Materials	Science Stories: <i>Treasure Underfoot</i> <i>Digging It Up</i> <i>Mining for Minerals</i>	
Water	Investigation 2, Parts 1,2 Investigation 3, Parts 1, 2, 3 Science Stories: <i>Ice History</i> <i>Water: A Vital Resource</i> <i>The Power of Water</i>	Science Stories Questions
Landforms	Overview (p.7) Investigation 5, Parts 1, 2, 3, 4 Science Stories: <i>Rivers and Controlling the Flow</i> <i>Scientists in the Canyon</i>	
Mixtures and Solutions	Science Stories: <i>The History of Rubber</i> <i>The Metals</i>	

(5.6) The student knows that some change occurs in cycles. The student is expected to



(A) identify events and describe changes that occur on a regular basis such as in daily, weekly, lunar, and seasonal cycles; and

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Solar Energy (Grade 5)	Science Stories: <i>Shadows</i>	
Ideas and Inventions (Grade 4)	Science Stories: <i>Looking at the Sky*</i>	
Water (Grade 4)	Science Stories: <i>Wet and Dry Places</i>	

* California FOSS Science Stories

(5.6) The student knows that some change occurs in cycles. The student is expected to

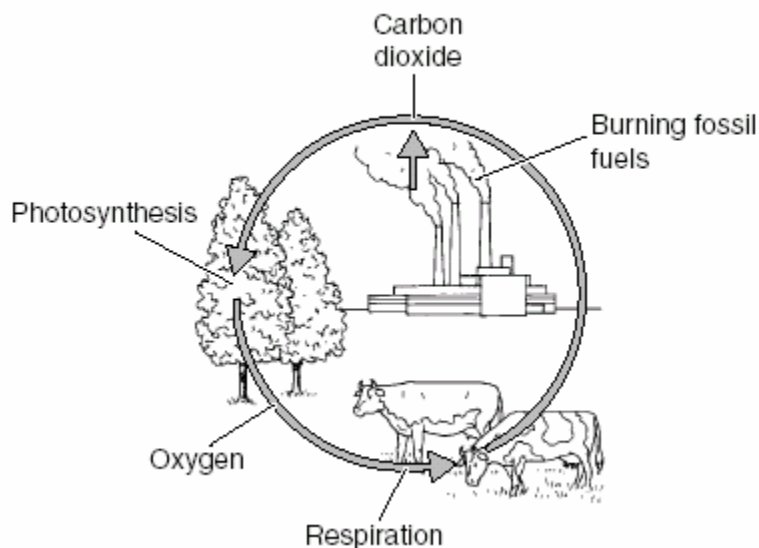


(B) identify the significance of the water, carbon, and nitrogen cycles.



19 Which gas in the air would increase if a large number of trees were cut down?

- A* Carbon dioxide
- B Nitrogen
- C Oxygen
- D Water vapor



An increase in the average level of carbon dioxide in the atmosphere is most likely caused by an increase in the —

- A extinctions of animals
- B plant life on Earth
- C* number of large forest fires
- D number of solar-powered homes

Plants take in carbon dioxide gas and use it to make sugars. Through this process they release oxygen, which animals need. Which of the following activities could decrease the amount of oxygen released into the air?

- A Making sure trees are planted with every new house built
- B Encouraging cities to plan for more parks
- C* Paving more land for roads and parking lots
- D Better controls for air and water pollution

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Water (Grade 4)	Science Stories: <i>The Water Cycle</i>	
Environments (Grade 5)		
Mixtures and Solutions (Grade 5)	Science Stories: <i>The Air You Breathe</i>	

**** Carbon and Nitrogen Cycles are not discussed in FOSS kits.**

(4.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to

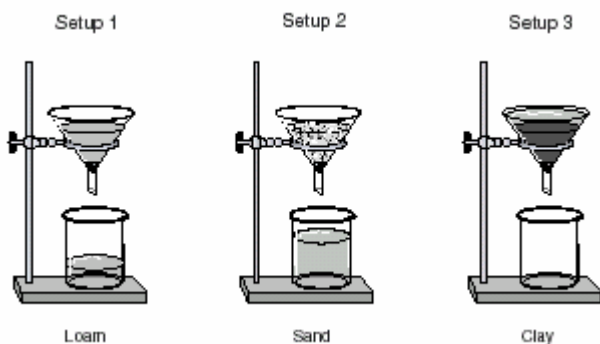


(A) test properties of soils including texture, capacity to retain water, and ability to support life;



3 A student wants to find out which type of soil holds the most water. He uses four identical pots with holes in the bottom. He fills each pot with a different type of soil and waters the pots with the same amount of water. How can he find out how much water stays in the soil in each pot?

- A By planting seeds and measuring plant growth in each pot
- B*** By measuring the amount of water that drains from each pot
- C By observing which soil looks wettest after the water has been added to the pots
- D By feeling the soil before and after adding water to each pot



Three soil samples were tested to see how much water each could hold. The same amount of water was added to each funnel of soil. Very few plants would probably grow in the clay because the water would —

- A*** fail to reach the roots of the plants
- B** become too cloudy
- C** run through the soil too quickly
- D** become poisonous to the plants

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Pebbles, Sand, and Silt (Grade 1)	Investigation 4, Parts 1-3 Science Stories: <i>What is Soil?*</i> <i>Testing Soil*</i>	Journal
Water (Grade 4)	Investigation 4, Part 1	Investigation 4, Part 1 SS # 16 End-of-Module # 2
Environments (Grade 5)	Investigation 1, Part 1 Investigation 3, Parts 1-3 Investigation 6, Parts 1-3	Investigation 1, Part 1 SS# 4 Investigation 3, Parts 1-3 SS# 11 Home School SS# 31 End-of-Module # 16, 22, 25
Landforms (Grade 5)	Investigation 2, Parts 1-2 Investigation 3, Parts 1-3	Investigation 2, Part1 SS# 9 Investigation 2, Part 2 SS# 10 End-of-Module Assessment # 5

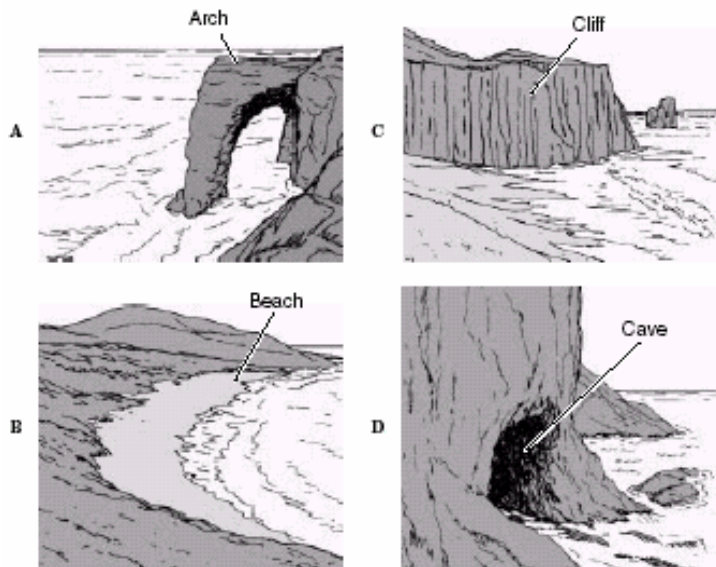
*California FOSS Science Stories

(4.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(B) summarize the effects of the oceans on land; and

Which landform was most likely made by the process of depositing sediments?



FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Water (Grade 4)	Science Stories: <i>Ice is Everywhere</i>	
Landforms (Grade 5)	Investigation 2, Part 1-2 Investigation 3, Parts 1-3 Science Stories: <i>Shapes of the Earth</i>	Science Notebook Investigation 2 SS# 9 Investigation 3, SS # 10 End-of-Module #'s 5, 13

****Deposition and erosion are discussed and investigated thoroughly in the landforms module in the 5th grade. The effects of the water (ice) and oceans are briefly discussed in the science story *Ice is Everywhere* in 4th grade.**

(4.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to

(C) identify the Sun as the major source of energy for the Earth and understand its role in the growth of plants, in the creation of winds, and in the water cycle.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Water (Grade 4)	Science Stories: <i>The Water Cycle</i>	
Solar Energy (Grade 5)	FOSS Stories: <i>The Sun and the Weather</i> <i>Solar Cookers in the Third World</i> <i>Solar Power from the Wind</i>	

(3.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(A) identify and describe the importance of earth materials including rocks, soil, water, and gases of the atmosphere in the local area and classify them as renewable, nonrenewable, or inexhaustible resources;

Which of these is an inexhaustible resource?

- A Coal
- B Gold
- C Trees
- D Wind

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Earth Materials (Grade 3)	Science Stories: <i>Mining for Minerals</i> <i>Identifying Minerals</i>	
Water (Grade 4)	Science Stories: <i>The Water Cycle</i> <i>The Power of Water</i>	
Physics of Sound (Grade 4)	Science Stories: <i>*Energy</i>	
Mixtures and Solutions (Grade 5)	Science Stories: <i>The Air You Breathe</i> <i>A Salty Story</i> <i>Earth Elements</i> <i>The Metals</i> <i>The History of Rubber</i>	
Landforms (Grade 5)	Science Stories <i>Rivers and Controlling the Flow</i>	

***California Version of Science Stories**

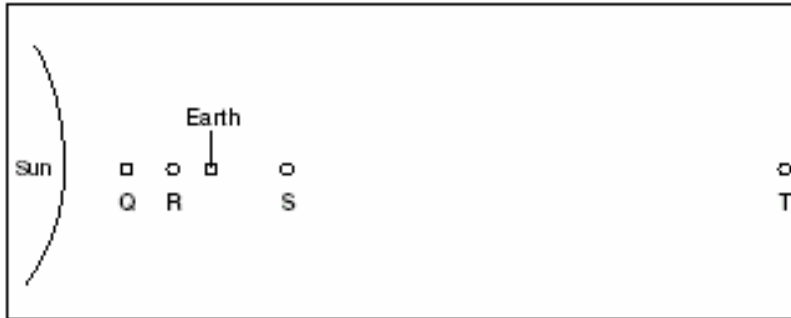
(3.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(C) identify the planets in our solar system and their position in relation to the Sun; and

13 Which two planets are closest to Earth?

- A Mercury and Saturn
- B Mars and Jupiter
- C Mercury and Venus
- D* Venus and Mars



26 Which of these best represents Mars?

- F Q
- G R
- H* S
- J T

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Ideas and Inventions	Science Stories: * <i>Objects in the Sky</i>	
Models and Designs	Investigation 1 Investigation 2	Investigation 1, SS# 4 Investigation 2, SS# 8
Solar Energy (Grade 5)	Math Extension SS #33 Science Stories: * <i>Living With a Star</i> * <i>Terrestrial Planets</i>	

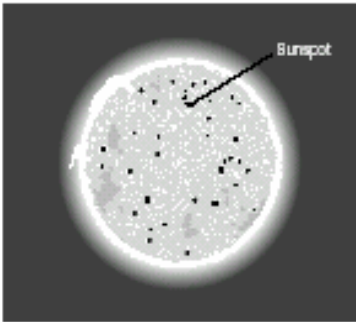
***California Version of Science Stories**

****Astronomy objectives not well developed in Texas version of the FOSS modules. California science stories contain good explanations.**

(3.11) The student knows that the natural world includes earth materials and objects in the sky. The student is expected to



(D) describe the characteristics of the Sun.



22 Sunspots appear to be darker than the rest of the sun's surface because they are —

- F partially hidden from view
- G in the shadow of the sun's corona
- H* cooler than the rest of the sun's surface
- J made of dark-colored minerals

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Solar Energy (Grade 5)	FOSS Overview Science Stories: <i>The Sun</i> <i>Effects of the Sun</i>	

(3.6) The student knows that forces cause change. The student is expected to



(B) identify that the surface of the Earth can be changed by forces such as earthquakes and glaciers.



27 A car will skid more on a wet road than on a dry road. This happens because between the tires and the dry road, there is more —

- A gravity
- B magnetism
- C* friction
- D heat

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Earth Materials	Science Stories: <i>Postcards from the Edge</i> <i>*Where Do Rocks Come From?</i>	
Landforms	Investigation 2, Parts 1-2 Investigation 3, Parts 1-2 FOSS Science Stories: <i>Real People in the Grand Canyon</i> <i>Rivers and Controlling the Flow</i> <i>The Story of Mount Shasta</i> <i>Shapes of the Earth</i> <i>National Parks</i> <i>The Eye of the Needle</i>	Investigation 2, SS# 9 Investigation 3, SS# 11 Science Notebook <i>Rivers and Controlling the Flow-questions to explore</i>

***California version of Science Stories**

(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to

(A) describe some cycles, structures, and processes that are found in a simple system; and

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Solar Energy (Grade 5)	Science Stories: <i>Shadows</i> <i>Building Time Devices</i> <i>Effects of the Sun</i> <i>Differential Heating</i> <i>The Sun and the Weather</i> <i>Solar Power from the Wind</i>	
Landforms (Grade 5)	Science Stories <i>Rivers and Controlling the Flow</i> <i>Shapes of the Earth</i>	

(5.5) The student knows that a system is a collection of cycles, structures, and processes that interact. The student is expected to

(B) describe some interactions that occur in a simple system.

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Solar Energy (Grade 5)	Science Stories: <i>Shadows</i> <i>Building Time Devices</i> <i>Effects of the Sun</i> <i>Differential Heating</i> <i>The Sun and the Weather</i> <i>Solar Power in Homes</i> <i>Solar Power from the Wind</i>	
Landforms (Grade 5)	Science Stories <i>Rivers and Controlling the Flow</i> <i>Shapes of the Earth</i>	

(4.6) The student knows that change can create recognizable patterns. The student is expected to



(A) identify patterns of change such as in weather, metamorphosis, and objects in the sky. Science concepts.



35 About how long does it take Earth to make a complete rotation on its axis?

- A* One day
- B One week
- C One month
- D One year

A sudden change in wind direction, air temperature, and cloud cover most likely signals a change in —

- A climate
- B landforms
- C seasons
- D weather

A student saw the constellation Scorpius in the southern part of the summer sky. In the winter Scorpius was not visible at all. What causes this constellation to disappear from the winter sky?

- A The stars moving away from Earth
- B The solar winds covering the night sky
- C* The revolution of Earth around the sun
- D The orbiting of the stars in the galaxy

FOSS Modules:

FOSS Module	FOSS Investigation/part	FOSS Assessment
Ideas and Inventions (Grade 4)	Science Stories: <i>Looking at the Sky</i>	
Models and Designs (Grade 5)	Science Stories: <i>Scientists and Models</i>	
Solar Energy (Grade 5)	Science Stories: <i>Shadows</i> <i>Building Time Devices</i> <i>The Sun and the Weather</i> <i>*Predicting the Weather</i>	
Landforms (Grade 5)	Science Stories <i>Rivers and Controlling the Flow</i> <i>Shapes of the Earth</i>	

***California version of Science Stories**

Weather concepts are introduced and taught in grade 2 in the FOSS kit called Air and Weather. Weather concepts are reviewed in grade 4 (Water kit) and in Grade 5 (Solar Energy).