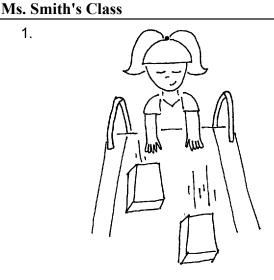
1.



Tina dropped both boxes at the same time down the slide. What can Tina say about this activity?

- (A) The first box and second box are identical.
- (B) The first box is heavier than the second box.
- (C) There is no friction acting on the boxes.
- (D) One box falls faster than the other.
- 2. Marta has 3 bags that are all the same size. She fills 1 with bananas, 1 with apples and 1 with raisins. If she fills each bag so it is full, which bag will have the most pieces of fruit in it?
 - (A) The bag with the raisins.
 - (B) The bag with the bananas.
 - (C) The bag with the apples.
 - (D) They will all be about the same.
- 3. Alex measured the size of an object twice and got different results. What should he do to determine the actual size?
 - (A) Take the result that he liked better.
 - (B) Do the measurement again.
 - (C) Take the average of the two measurements.
 - (D) Take the results from the second measurement.
- 4. Sharon is measuring how much matter is in her box of animal crackers. What measurement is she making?
 - (A) volume
- (C) mass
- (B) height
- (D) temperature
- 5. Fred is 5 feet 7 inches tall. What is Fred's height in inches?
 - (A) 67 inches
- (C) 61 inches
- (B) 65 inches
- (D) 57 inches
- 6. What causes a flood to occur?

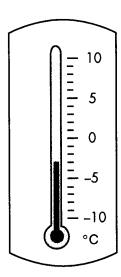
7. Mary wants to find the average width of a fourth grader's hand.



Which is the best unit of measurement for her to use?

- (A) grams
- (C) centimeters
- (B) meters
- (D) kilometers
- 8. What unit of measure should be used to measure a pencil?
 - (A) centimeter
- (C) kilometer
- (B) meter
- (D) foot

9. The thermometer shows that the temperature outside is –3°C.



What would the temperature be if it were 7 degrees warmer?

- $(A) -10^{\circ}C$
- (C) 4°C

 $(B) -3^{\circ}C$

- (D) 11°C
- 10. Which number goes in the [] to complete the pattern?

6, 12, 18, [], 30

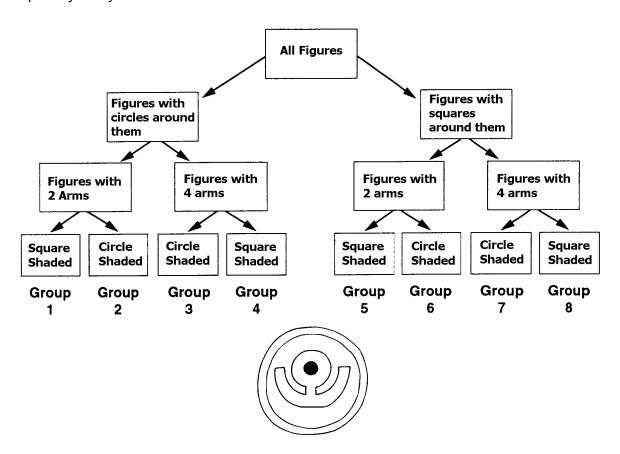
(A) 19

(C)24

(B) 22

(D) 29

11. Billy made up a key for symbols from an ancient civilization.



What group would the symbol above belong to?

- (A) Group 7
- (B) Group 2
- (C) Group 3
- (D) Group 5

12. Jonathan wants to measure the effect of light on certain plants.

Which of the following should he do to make his results more accurate?

- (A) Give more water to the plants that receive more light.
- (B) Put the plants in the same conditions and give them all the same amount of water.
- (C) Put the plants receiving the least amount of light in the best conditions.
- (D) Completely ignore all the plants' conditions and water supply.
- 13. Which of the following is an observation?
 - (A) Beach balls are fun.
 - (B) Butterflies have wings.
 - (C) Chicago is the nicest city in the world.
 - (D) Television is boring.
- 14. Which way does the compass needle *always* point?
 - (A) West

- (C) North
- (B) South
- (D) East

15. Base your answer to the following question on the picture graph below.

CARTONS OF EGGS SOLD LAST MONTH

Farm A O O O
$Farm B \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
Farm C O O
Each \bigcirc = 100 cartons

According to the graph, how many cartons of eggs were sold altogether by farms *A*, *B*, and *C* last month?

(A) 13

(C) 1300

(B) 130

- (D) 3000
- 16. A large magnet is slowly moved toward an object on a table. The object moves away from the magnet. The object is most likely
 - (A) an iron nail
- (C) another magnet
- (B) a piece of paper
- (D) a copper coin

17. Base your answer to the following question on the chart below.

DISTANCE FROM MINNEAPOLIS

City	Number of Miles
Luverne	205
Virginia	193
Moorhead	231
Morris	149

Which city is closest to Minneapolis?

(A) Luverne

(C) Moorhead

(B) Virginia

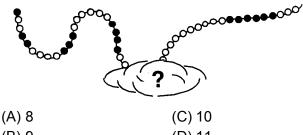
(D) Morris

18. The toy store made a survey of favorite toys. The results are below.

Number of V	otes/			
Action figures	JH	Ж	Ш	
Stuffed animals	JH			
Dolls	Ж	Ж	Ж	
Video games	JHI	Ж	Ж	III
Building blocks	JHI	1		
Cars, trucks, and trains	ᄣ	Ш		

Which statement about the survey is true?

- (A) Stuffed animals and action figures received the fewest number of votes.
- (B) Dolls and action figures received the most votes.
- (C) Most children voted for dolls and building blocks as their favorite toys.
- (D) Half of the total votes were for video games and dolls as the favorite toys.
- 19. If the patterns of the black and white beads continue, how many total beads are hidden?



- (B) 9 (D) 11
- handling a plant you have never seen before?

 (A) Only handle it for a few minutes.

20. What would be the safest thing to do when

- (B) Put gloves on before touching it.
- (C) Wash your hands before touching it.
- (D) Wash your hands after tocuhing it.

21. Jan, Tom, Dick, and Ana each use a sponge to make identical wet streaks on the class chalkboard. Each person stands 1 meter from his or her wet streak and does a different activity. Jan, Tom, and Dick record the time it takes their own wet streak to dry.

CHALKBOARD DRYING TIMES

Person	Activity	Time it takes wet streak to dry	
Jan	Nothing 1 min, 50 seco		
Tom	Wave hands at wet streak	1 min, 5 seconds	
Dick	Aims hot hair dryer at wet streak	25 seconds	
Ana	Aims electric fan at wet streak		

Predict how long it takes Ana's streak to disappear. Explain the reasons for your answer.

22. Vincent was breeding colonies of bacteria to use in a science experiment. The table below shows the number of bacteria he had over a 3 week period.

BACTERIA POPULATION

Week	Bacteria
1	54
2	72
3	90
4	

At this rate, how many bacteria will Vincent have by Week 4?

(A) 108 bacteria

(C) 92 bacteria

(B) 99 bacteria

(D) 110 bacteria

23. Ricky decided to grow a sunflower plant over the summer. He planted the sunflower seed in a large pot with soil and placed it in a sunny spot outside his house. Ricky poured a gallon of water on his sunflower each day for three weeks. The sunflower never grew.

What is the best explanation for the death of the sunflower seed?

- (A) The sunflower was snowed on since it was placed outdoors.
- (B) There wasn't a place for the sunflower to grow.
- (C) The sunflower seed was overwatered.
- (D) The plant did not get enough light or air.

24. Look for a pattern. Describe the pattern and write the missing numbers to complete the table.

Α	В
2	10
5	13
8	16
11	
	22

25. Courtney was reading an entry in an animal research journal.

> A dog can be an obedient house pet as well as a friendly companion. After a few weeks training my golden retriever, Summer, I have had no trouble getting her to respond to my command. She can sit, roll over, and hand me her paw. Not to mention that I get great exercise walking and playing fetch with her, too. Summer really is a man's best friend.

What is the best sentence to summarize what Courtney read?

- (A) Not to mention that I get great exercise walking and playing fetch with her, too.
- (B) After a few weeks training my golden retriever named Summer, I have had no trouble getting her to respond to my command.
- (C) She can sit, roll over, and hand me her paw.
- (D) A dog can be an obedient house pet as well as a friendly companion.
- 26. An astronaut on the moon weighs about one-sixth of his weight on Earth. This is because
 - (A) astronauts lose mass when they are on the moon
 - (B) the moon has a weaker force of gravity than the Earth
 - (C) there is no atmosphere on the moon
 - (D) the moon is so far away from the Earth
- 27. When David pushes the button by his front door, the doorbell rings inside the house. What energy is he using to create the sound?
 - (A) heat

(C) nuclear

(B) chemical

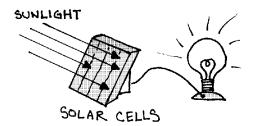
- (D) electrical
- 28. Which object would reflect the most light?
 - (A) cloth

(C) mirror

(B) wood

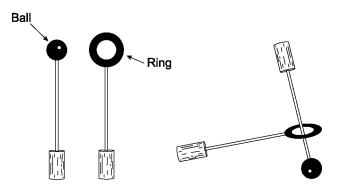
(D) construction paper

29. Solar cells can capture energy from our Sun and transfer this energy for many practical purposes.



List in the corect order the energy exchanges shown by the diagram above.

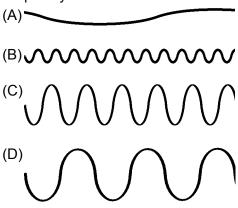
- (A) Light \rightarrow Electrical \rightarrow Light
- (B) Light \rightarrow Mechanical \rightarrow Light
- (C) Electrical \rightarrow Mechanical \rightarrow Light
- (D) Light \rightarrow Electrical \rightarrow Mechanical
- 30. Burt used a spoon to stir soup that was cooking on his stove. Which type of spoon will stay the coolest while he stirs?
 - (A) an iron spoon
- (C) a wooden spoon
- (B) an aluminum spoon (D) a silver spoon
- 31. Tasha has the two objects drawn below. One is a metal ring on a stick and one is a metal ball on a stick. The ball can just squeeze through the ring.



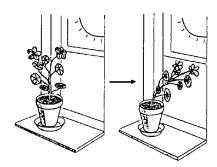
If Tasha heats the metal ball, she will probably notice that

- (A) the ball will contract and pass through the ring more easily
- (B) the ball will gain mass and become heavier
- (C) the ball will expand and not fit through the
- (D) the ball will be magnetized and be attracted to the ring

32. Which of the following waves has the highest frequency?



- 33. Which of the following waves is not visible to normal human eye?
 - (A) red light
- (C) ultraviolet light
- (B) violet light
- (D) blue light
- 34. Which one of the activities below would be the best example of the force of friction being used?
 - (A) heating water on the stove
 - (B) hitting a baseball
 - (C) rubbing your hands together
 - (D) making ice cubes
- 35. Ronald put his plant on the windowsill inside his kitchen. Over time, the plant started to bend towards the window.



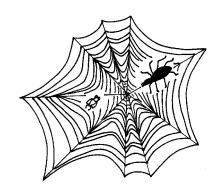
What most likely caused Ronald's plant to bend?

- (A) the plant was stimulated by the sun
- (B) the plant was stimulated by the air
- (C) the plant wanted to be outside
- (D) the plant just happened to turn that way
- 36. Which of the following does not grow in the climate of Virginia?
 - (A) palm tree
- (C) peanut

(B) apple

(D) corn

37. The picture below shows a fly trapped on a spider's web.



Which term **best** describes the fly that this spider will consume?

- (A) predator
- (C) prey
- (B) producer
- (D) consumer
- 38. The following is a nutritional facts label.

Honey Nutrition Facts Serving Size 1 Tablespoon Amount Per Serving Calories 60 Calories from Fat 0 Total Fat 0 g Saturated Fat 0 g Cholesterol 0 mg Sodium 0 mg Total Carbohydrate 17 g Sugars 16 g

How many carbohydrates are in 3 tablespoons of honey?

(A) 17g

(C) 51g

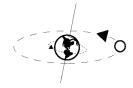
(B) 31g

- (D) 60g
- 39. Darryl is using old cardboard boxes to make new bedding for his hamster. Which term **best** describes what Darryl is doing?
 - (A) wasting
- (C) reusing
- (B) trash buildup
- (D) reheating
- 40. Which activity would a squirrel most likely do in the fall?
 - (A) swim to colder water

Protein 0 g

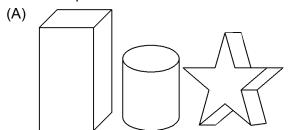
- (B) collect food for the winter
- (C) sleep to get ready to hibernate
- (D) migrate to a warmer climate

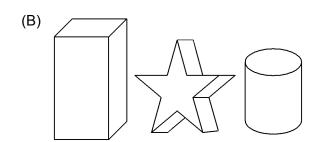
41.

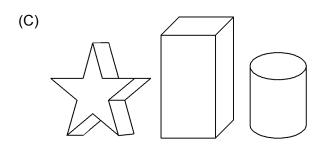


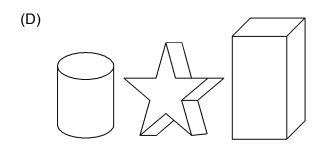
The picture shows the moon circling the earth. The earth is also spinning on its axis. What would happen if the earth spun faster?

- (A) days would be hotter
- (B) days would be less than 24 hours long
- (C) days would be colder
- (D) days would be longer than 24 hours long
- 42. Which of the following shows the blocks in correct sequence from shortest to tallest?

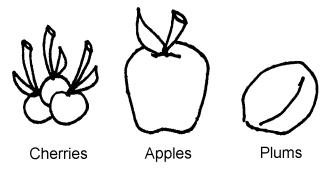




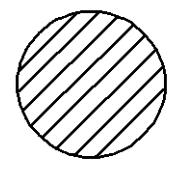




43. There are three boxes of fruit: one with cherries, one with apples and one with plums. If all the boxes are the same size, which one will have the *fewest* pieces of fruit in it?



- (A) The box with the apples
- (B) The box with the plums
- (C) The box with the cherries
- (D) There's no way to tell without more information.
- 44. Base your answer to the following question on the figure below.



Which of the following groups can this figure be classified in?

- (A) Circle shape and striped pattern.
- (B) Circle shape and solid pattern.
- (C) Square shape and striped pattern.
- (D) Square shape and solid pattern.
- 45. A magnet attracts an object placed on a table. The object must contain
 - (A) paper
- (C) glass

(B) iron

- (D) plastic
- 46. One can tell how hot or cold something is by measuring its
 - (A) calories
- (C) energy
- (B) weight
- (D) temperature

Answer Key

1. <u>D</u>

Ms. Smith's Class

2. <u>A</u>

3. <u>B</u>

4. <u>C</u>

5. <u>A</u>

6. Having too much rain in an area.

7. <u>C</u>

8. <u>A</u>

9. <u>C</u>

10. C

11. <u>B</u>

12. <u>B</u>

13. <u>B</u>

14. <u>C</u>

15. <u>C</u>

16. <u>C</u>

17. D

18. <u>D</u>

19. D

20. <u>B</u>

27. <u>D</u>

26. <u>B</u>

28. <u>C</u>

29. <u>A</u>

30. <u>C</u>

31. C

32. <u>B</u>

33. <u>C</u>

34. <u>C</u>

35. <u>A</u>

36. <u>A</u>

37. <u>C</u>

38. <u>C</u>

39. <u>C</u>

40. <u>B</u>

41. <u>B</u>

42. D

43. <u>A</u>

44. <u>A</u>

45. <u>B</u>

46. <u>D</u>

21. Accept answers between 30 seconds and 1 minute. Explanations may vary.

The hair dryer is like a fan but with hot air. Hot air dries wet objects faster than room temperature air. A fan is better than waving one's hand.

22. <u>A</u>

23. C

24. The pattern is that they both increase by 8 and the missing numbers are 14 and 19.

25. <u>D</u>

Eduware Genealogy by Question Displaying UNIT CHAPTER TOPIC SUBTOPIC QUESTION ID

- 1. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / A. Observations / 1. Direct Observation of Basic Properties: 0001138
- 2. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / A. Observations / 1. Direct Observation of Basic Properties: 0001402
- 3. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / A. Observations / 4. Repetition to Improve Precision : 0000433
- 4. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / C. Measurement / 1. Length, Mass, & Volume: 0000526
- 5. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / C. Measurement / 2. Estimating in Metric and English Units: 0001390
- 6. VI. INTERRELATIONSHIPS IN EARTH/SPACE SYSTEMS / 1. Weather & The Sun / B. Weather Patterns / 4. Investigating Weather Factors: 0000254
- 7. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / C. Measurement / 2. Estimating in Metric and English Units: 0000184
- 8. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / C. Measurement / 2. Estimating in Metric and English Units: 0001391
- 9. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / C. Measurement / 6. Measuring Temperature to the Nearest Celsius Degree : 0001337
- 10. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / B. Prediction / 1. Predicting Unseen Member of a Sequence: 0001375
- I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / B. Classification & Sequencing / 3. Using a Classification Key: 0000329
- 12. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / D. Using Variables in Experimentation / 2. Holding Variables Constant : 0000747
- 13. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / D. Inference / 2. Differentiating Observation from Interpretation: 0000750
- 14. II. FORCE, ENERGY, & MOTION / 1. Forces / B. Magnetism / 3. Compasses and Other Useful Applications : 0000631
- 15. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / A. Communication / 1. Constructing Picture Graphs: 0001319
- 16. II. FORCE, ENERGY, & MOTION / 1. Forces / B. Magnetism / 2. Determining the Attraction & Repellance of Magnetic Poles: 0000367
- 17. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / A. Communication / 2. Communicating Data with Written Statements & Numbers: 0001327
- 18. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / A. Communication / 2. Communicating Data with Written Statements & Numbers: 0001352
- 19. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / B. Prediction / 2. Making Predictions Based on Observations: 0001374
- 20. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 3. Scientific Analysis, Inquiry, & Design / B. Classroom Preparation / 1. Using Proper Safety Methods: 0000327
- 21. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / B. Prediction / 2. Making Predictions Based on Observations: 0000072
- 22. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / B. Prediction / 4. Using Patterns to Predict : 0001216
- 23. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / C. Hypothesis / 1. Defining Conditions that Influence Change: 0000930
- 24. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 2. Comprehension & Analysis / E. Interpreting, Analyzing, & Evaluating Data / 3. Predicting Based on Charts: 0001388
- 25. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 3. Scientific Analysis, Inquiry, & Design / A. Outside Research / 1. Condensing Information: 0000701
- 26. II. FORCE, ENERGY, & MOTION / 1. Forces / A. Basic Forces / 2. Understanding Gravitational Pull: 0000113
- 27. II. FORCE, ENERGY, & MOTION / 2. Energy / A. Energy Forms / 1. Distinguishing between Electrical, Mechanical, & Chemical: 0000232

Eduware Genealogy by Question

- 28. II. FORCE, ENERGY, & MOTION / 2. Energy / C. Light / 2. Reflection, Refraction, & Diffraction: 0000213
- 29. II. FORCE, ENERGY, & MOTION / 2. Energy / A. Energy Forms / 1. Distinguishing between Electrical, Mechanical, & Chemical: 0001283
- 30. II. FORCE, ENERGY, & MOTION / 2. Energy / A. Energy Forms / 3. Understanding Heat Flow: 0000185
- 31. II. FORCE, ENERGY, & MOTION / 2. Energy / A. Energy Forms / 3. Understanding Heat Flow: 0000198
- 32. II. FORCE, ENERGY, & MOTION / 2. Energy / B. Sound / 1. Investigating Frequency & Wavelength: 0000918
- 33. II. FORCE, ENERGY, & MOTION / 2. Energy / C. Light / 1. Understanding the Visible Spectrum : 0000823
- 34. II. FORCE, ENERGY, & MOTION / 4. Efficiency / A. Fundamentals / 1. Working against Friction: 0000424
- 35. IV. LIFE PROCESSES / 1. Plant Life / A. Characteristics & Needs / 1. Understanding Plant Necessities: 0000936
- 36. V. LIVING SYSTEMS / 1. Ecosystems / D. Habitats, Niches, & Populations / 3. Understanding Populations & Communities: 0000679
- 37. V. LIVING SYSTEMS / 1. Ecosystems / C. Food Chains & Webs / 1. Distinguishing between Producer, Consumer, & Decomposer: 0000540
- V. LIVING SYSTEMS / 1. Ecosystems / C. Food Chains & Webs / 5. Reading Nutritional Labels : 0001168
- 39. VIII. RESOURCES / 1. Human Management of Resources / A. Conserving, Recycling, & Reusing / 1. Identifying Reusable Resources: 0000606
- 40. VII. EARTH PATTERNS, CYCLES, & CHANGE / 1. Effects of Weather & Seasons on Organisms & Surroundings / B. Impacts on Animal Life / 1. Following Behavioral Changes: 0000537
- 41. VII. EARTH PATTERNS, CYCLES, & CHANGE / 3. The Solar System / A. Motions / 2. The Motions of the Earth, Moon, & Sun: 0000237
- 42. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / A. Observations / 1. Direct Observation of Basic Properties: 0000730
- 43. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / A. Observations / 1. Direct Observation of Basic Properties: 0001407
- 44. I. SCIENTIFIC INVESTIGATION, REASONING, & LOGIC / 1. Experimentation / B. Classification & Sequencing / 2. Grouping Objects Sharing Multiple Attributes: 0001229
- 45. II. FORCE, ENERGY, & MOTION / 1. Forces / B. Magnetism / 1. Distinguishing between Metal & Nonmetal Objects: 0000265
- 46. II. FORCE, ENERGY, & MOTION / 2. Energy / A. Energy Forms / 3. Understanding Heat Flow: 0000111

State Genealogy by Question Displaying STANDARDS QUESTION ID

- 1. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results.
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.1 Knows that in order to learn it is important to observe the same things often and compare them. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. / : 0001138
- 2. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results.
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.1 Knows that in order to learn it is important to observe the same things often and compare them. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. / : 0001402
- 3. Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.2 Knows that when tests are repeated under the same conditions similar results are usually obtained.: 0000433
- 4. Grades 3-5: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.2.1 Determines that the properties of materials (e.g. density and volume) can be compared and measured (e.g. using rulers balances and thermometers).
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. /
 - Grades Pre K-2: H. The Nature of Science / 3: The student understands that science technology and society are interwoven and interdependent. / SC.H.3.1.1 Knows that scientists and technologists use a variety of tools (e.g. thermometers magnifiers rulers and scales) to obtain information in more detail and to make work easier. / : 0000526
- 5. (none) 0001390
- 6. Grades 3-5: D. Processes that Shape the Earth / 1: The student recognizes that processes in the lithosphere atmosphere hydrosphere and biosphere interact to shape the Earth. / SC.D.1.2.3 Knows that the water cycle is influenced by temperature pressure and the topography of the land.: 0000254
- 7. (none) 0000184
- 8. (none) 0001391
- 9. Grades 3-5: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.2.1 Determines that the properties of materials (e.g. density and volume) can be compared and measured (e.g. using rulers balances and thermometers).
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. /
 - Grades Pre K-2: H. The Nature of Science / 3: The student understands that science technology and society are interwoven and interdependent. / SC.H.3.1.1 Knows that scientists and technologists use a variety of tools (e.g. thermometers magnifiers rulers and scales) to obtain information in more detail and to make work easier. / : 0001337
- 10. Grades 3-5: H. The Nature of Science / 2: The student understands that most natural events occur in comprehensible consistent patterns. / SC.H.2.2.1 Knows that natural events are often predictable and logical. Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world. / : 0001375
- 11. Grades Pre K-2: A. The Nature of Matter / 1: The student understands that all matter has observable measurable

State Genealogy by Question

- properties. / SC.A.1.1.1 Knows that objects can be described classified and compared by their composition (e.g. wood or metal) and their physical properties (e.g. color size and shape). : 0000329
- 12. (none) 0000747
- 13. Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world.: 0000750
- 14. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.2 Recognizes various forms of energy (e.g. heat light and electricity). : 0000631
- 15. (none) 0001319
- 16. (none) 0000367
- 17. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.1 Knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.
 - Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world. / : 0001327
- 18. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.1 Knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.
 - Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world. / : 0001352
- 19. (none) 0001374
- 20. (none) 0000327
- 21. (none) 0000072
- 22. Grades 3-5: H. The Nature of Science / 2: The student understands that most natural events occur in comprehensible consistent patterns. / SC.H.2.2.1 Knows that natural events are often predictable and logical. Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world. / : 0001216
- 23. Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world.: 0000930
- 24. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results.
 - Grades 3-5: H. The Nature of Science / 3: The student understands that science technology and society are interwoven and interdependent. / SC.H.3.2.2 Knows that data are collected and interpreted in order to explain an event or concept. / : 0001388
- 25. (none) 0000701
- 26. (none) 0000113
- 27. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.2 Recognizes various forms of energy (e.g. heat light and electricity). : 0000232
- 28. Grades Pre K-2: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.1.2 Knows that light can pass through some objects and not others. : 0000213
- 29. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.2 Recognizes various forms of energy (e.g. heat light and electricity).: 0001283
- 30. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. /

State Genealogy by Question

- SC.B.1.2.6 Knows ways that heat can move from one object to another.: 0000185
- 31. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.6 Knows ways that heat can move from one object to another. : 0000198
- 32. (none) 0000918
- 33. Grades Pre K-2: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.1.1 Knows that the Sun supplies heat and light energy to Earth. : 0000823
- 34. (none) 0000424
- 35. Grades Pre K-2: F. Processes of Life / 1: The student describes patterns of structure and function in living things. / SC.F.1.1.1 Knows the basic needs of all living things.
 - Grades Pre K-2: G. How Living Things Interact with Their Environment / 2: The student understands the consequences of using limited natural resources. / SC.G.2.1.1 Knows that if living things do not get food water shelter and space they will die. / : 0000936
- 36. (none) 0000679
- 37. Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.1 Knows ways that plants animals and protists interact.
 - Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.4 Knows that some organisms decompose dead plants and animals into simple minerals and nutrients for use by living things and thereby recycle matter. / : 0000540
- 38. (none) 0001168
- 39. Grades 3-5: D. Processes that Shape the Earth / 2: The student understands the need for protection of the natural systems on Earth. / SC.D.2.2.1 Knows that reusing recycling and reducing the use of natural resources improve and protect the quality of life.
 - Grades Pre K-2: D. Processes that Shape the Earth / 2: The student understands the need for protection of the natural systems on Earth. / SC.D.2.1.1 Understands that people influence the quality of life of those around them. / : 0000606
- 40. Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.2 Knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment. Grades Pre K-2: F. Processes of Life / 1: The student describes patterns of structure and function in living things. / SC.F.1.1.4 Understands that structures of living things are adapted to their function in specific environments. / Grades Pre K-2: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.1.3 Knows that there are many different plants and animals living in many different kinds of environments (e.g. hot cold wet dry sunny and dark). / : 0000537
- 41. (none) 0000237
- 42. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results.
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.1 Knows that in order to learn it is important to observe the same things often and compare them. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. / : 0000730
- 43. Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results.
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.1 Knows that in order to learn it is important to observe the same things often and compare them. /
 - Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her

State Genealogy by Question

- surroundings. / : 0001407
- 44. Grades Pre K-2: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.1.1 Knows that objects can be described classified and compared by their composition (e.g. wood or metal) and their physical properties (e.g. color size and shape). : 0001229
- 45. Grades 3-5: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.2.1 Determines that the properties of materials (e.g. density and volume) can be compared and measured (e.g. using rulers balances and thermometers).

 Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. /

SC.B.1.2.2 Recognizes various forms of energy (e.g. heat light and electricity). / : 0000265

46. Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.6 Knows ways that heat can move from one object to another. : 0000111

Eduware Genealogy by Category

- 4: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\A. Observations\1. Direct Observation of Basic Properties (1, 2, 42, 43)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\A. Observations\4. Repetition to Improve Precision (3)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\B. Classification & Sequencing\3. Using a Classification Key (11)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\C. Measurement\1. Length, Mass, & Volume (4)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\C. Measurement\6. Measuring Temperature to the Nearest Ce (9)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\B. Prediction\1. Predicting Unseen Member of a Sequence (10)
- 3: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\C. Measurement\2. Estimating in Metric and English Units (5, 7, 8)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\D. Using Variables in Experimentation\2. Holding Variables Constant (12)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\D. Inference\2. Differentiating Observation from Interp (13)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\A. Communication\1. Constructing Picture Graphs (15)
- 2: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\A. Communication\2. Communicating Data with Written Stateme (17, 18)
- 2: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\B. Prediction\2. Making Predictions Based on Observation (19, 21)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\3. Scientific Analysis, Inquiry, & Design\B. Classroom Preparation\1. Using Proper Safety Methods (20)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\B. Prediction\4. Using Patterns to Predict (22)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\C. Hypothesis\1. Defining Conditions that Influence Chan (23)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\2. Comprehension & Analysis\E. Interpreting, Analyzing, & Evaluating D\3. Predicting Based on Charts (24)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\3. Scientific Analysis, Inquiry, & Design\A. Outside Research\1. Condensing Information (25)
- 1: I. SCIENTIFIC INVESTIGATION, REASONING, &\1. Experimentation\B. Classification & Sequencing\2. Grouping Objects Sharing Multiple Attri (44)
- 1: II. FORCE, ENERGY, & MOTION\1. Forces\A. Basic Forces\2. Understanding Gravitational Pull (26)
- 1: II. FORCE, ENERGY, & MOTION\1. Forces\B. Magnetism\2. Determining the Attraction & Repellance (16)
- 1: II. FORCE, ENERGY, & MOTION\1. Forces\B. Magnetism\1. Distinguishing between Metal & Nonmetal (45)
- 1: II. FORCE, ENERGY, & MOTION\1. Forces\B. Magnetism\3. Compasses and Other Useful Applications (14)
- 3: II. FORCE, ENERGY, & MOTION\2. Energy\A. Energy Forms\3. Understanding Heat Flow (30, 31, 46)
- 1: II. FORCE, ENERGY, & MOTION\2. Energy\B. Sound\1. Investigating Frequency & Wavelength (32)
- 1: II. FORCE, ENERGY, & MOTION\2. Energy\C. Light\1. Understanding the Visible Spectrum (33)
- 2: II. FORCE, ENERGY, & MOTION\2. Energy\A. Energy Forms\1. Distinguishing between Electrical, Mech (27, 29)
- 1: II. FORCE, ENERGY, & MOTION\2. Energy\C. Light\2. Reflection, Refraction, & Diffraction (28)
- 1: II. FORCE, ENERGY, & MOTION\4. Efficiency\A. Fundamentals\1. Working against Friction (34)
- 1: IV. LIFE PROCESSES\1. Plant Life\A. Characteristics & Needs\1. Understanding Plant Necessities (35)
- 1: V. LIVING SYSTEMS\1. Ecosystems\C. Food Chains & Webs\1. Distinguishing between Producer, Consum (37)
- 1: V. LIVING SYSTEMS\1. Ecosystems\C. Food Chains & Webs\5. Reading Nutritional Labels (38)
- 1: V. LIVING SYSTEMS\1. Ecosystems\D. Habitats, Niches, & Populations\3. Understanding Populations & Communities (36)
- 1: VI. INTERRELATIONSHIPS IN EARTH/SPACE SYST\1. Weather & The Sun\B. Weather Patterns\4. Investigating Weather Factors (6)

Eduware Genealogy by Category

- 1: VII. EARTH PATTERNS, CYCLES, & CHANGE\1. Effects of Weather & Seasons on Organis\B. Impacts on Animal Life\1. Following Behavioral Changes (40)
- 1: VII. EARTH PATTERNS, CYCLES, & CHANGE\3. The Solar System\A. Motions\2. The Motions of the Earth, Moon, & Sun (41)
- 1: VIII. RESOURCES\1. Human Management of Resources\A. Conserving, Recycling, & Reusing\1. Identifying Reusable Resources (39)

State Genealogy by Category

- 3 from Grades 3-5: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.2.1 Determines that the properties of materials (e.g. density and volume) can be compared and measured (e.g. using rulers balances and thermometers). (4, 9, 45)
- 4 from Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.2 Recognizes various forms of energy (e.g. heat light and electricity). (14, 27, 29, 45)
- 3 from Grades 3-5: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.2.6 Knows ways that heat can move from one object to another. (30, 31, 46)
- 1 from Grades 3-5: D. Processes that Shape the Earth / 1: The student recognizes that processes in the lithosphere atmosphere hydrosphere and biosphere interact to shape the Earth. / SC.D.1.2.3 Knows that the water cycle is influenced by temperature pressure and the topography of the land. (6)
- 1 from Grades 3-5: D. Processes that Shape the Earth / 2: The student understands the need for protection of the natural systems on Earth. / SC.D.2.2.1 Knows that reusing recycling and reducing the use of natural resources improve and protect the quality of life. (39)
- 1 from Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.1 Knows ways that plants animals and protists interact. (37)
- 1 from Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.2 Knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment. (40)
- 1 from Grades 3-5: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.2.4 Knows that some organisms decompose dead plants and animals into simple minerals and nutrients for use by living things and thereby recycle matter. (37)
- 2 from Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.1 Knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments. (17, 18)
- 7 from Grades 3-5: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.2.2 Knows that a successful method to explore the natural world is to observe and record and then analyze and communicate the results. (1, 2, 17, 18, 24, 42, 43)
- 2 from Grades 3-5: H. The Nature of Science / 2: The student understands that most natural events occur in comprehensible consistent patterns. / SC.H.2.2.1 Knows that natural events are often predictable and logical. (10, 22)
- 1 from Grades 3-5: H. The Nature of Science / 3: The student understands that science technology and society are interwoven and interdependent. / SC.H.3.2.2 Knows that data are collected and interpreted in order to explain an event or concept. (24)
- 2 from Grades Pre K-2: A. The Nature of Matter / 1: The student understands that all matter has observable measurable properties. / SC.A.1.1.1 Knows that objects can be described classified and compared by their composition (e.g. wood or metal) and their physical properties (e.g. color size and shape). (11, 44)
- 1 from Grades Pre K-2: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.1.1 Knows that the Sun supplies heat and light energy to Earth. (33)
- 1 from Grades Pre K-2: B. Energy / 1: The student recognizes that energy may be changed in form with varying efficiency. / SC.B.1.1.2 Knows that light can pass through some objects and not others. (28)
- 1 from Grades Pre K-2: D. Processes that Shape the Earth / 2: The student understands the need for protection of the natural systems on Earth. / SC.D.2.1.1 Understands that people influence the quality of life of those around them. (39)
- 1 from Grades Pre K-2: F. Processes of Life / 1: The student describes patterns of structure and function in living things. / SC.F.1.1.1 Knows the basic needs of all living things. (35)
- 1 from Grades Pre K-2: F. Processes of Life / 1: The student describes patterns of structure and function in living things. / SC.F.1.1.4 Understands that structures of living things are adapted to their function in specific environments. (40)
- 1 from Grades Pre K-2: G. How Living Things Interact with Their Environment / 1: The student understands the competitive interdependent cyclic nature of living things in the environment. / SC.G.1.1.3 Knows that there are many different plants and animals living in many different kinds of environments (e.g. hot cold wet dry sunny and dark). (40)

State Genealogy by Category

- 1 from Grades Pre K-2: G. How Living Things Interact with Their Environment / 2: The student understands the consequences of using limited natural resources. / SC.G.2.1.1 Knows that if living things do not get food water shelter and space they will die. (35)
- 4 from Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.1 Knows that in order to learn it is important to observe the same things often and compare them. (1, 2, 42, 43)
- 1 from Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.2 Knows that when tests are repeated under the same conditions similar results are usually obtained. (3)
- 6 from Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.4 Knows that people use scientific processes including hypotheses making inferences and recording and communicating data when exploring the natural world. (10, 13, 17, 18, 22, 23)
- 6 from Grades Pre K-2: H. The Nature of Science / 1: The student uses the scientific processes and habits of mind to solve problems. / SC.H.1.1.5 Uses the senses tools and instruments to obtain information from his or her surroundings. (1, 2, 4, 9, 42, 43)
- 2 from Grades Pre K-2: H. The Nature of Science / 3: The student understands that science technology and society are interwoven and interdependent. / SC.H.3.1.1 Knows that scientists and technologists use a variety of tools (e.g. thermometers magnifiers rulers and scales) to obtain information in more detail and to make work easier. (4, 9)

Date _____

Name	Class
1	28
2	29
3	30
4	31
5	32
6.	33
7	34
8	35
9	36
10	37
11	38
12	39
13	40
14	41
15	42
16	43
17	44
18	45
19	46
20	
21.	
22	
23	
24.	
25	
26	
27	