Selected Response Items
Grade 4

(I) Multiple Choice

1. If crickets live in sandy soil, which habitat would be best for its needs?
   A. dessert
   B. forest
   C. grassland
   D. pond

2. What is the main role of decomposers?
   A. break down dead animals
   B. break down living plants
   C. provide food for animals
   D. provide sunlight for plants

3. Which best represents humans?
   A. carnivore
   B. decomposer
   C. herbivore
   D. omnivore

4. Which animal is a scavenger?
   A. crow
   B. fox
   C. hawk
   D. owl

5. What is the correct order of the levels in a food chain?
   A. Consumer – Producer – Decomposer
   B. Decomposer – Producer – Consumer
   C. Decomposer – Consumer - Producer
   D. Producer – Consumer – Decomposer
Use the food chain below to answer the next three questions.
Sun – Plants – Mice – Snakes – Hawks

6. Which organism’s population would most likely decrease soon after the number of mice greatly increased?
   A. hawks
   B. mice
   C. plants
   D. snakes

7. Which best describes the hawk?
   A. decomposer
   B. predator
   C. prey
   D. scavenger

8. Which best describes the mice?
   A. decomposer
   B. predator
   C. prey
   D. scavenger

9. Producers are an important part of the food chain. What are producers?
   A. animals
   B. humans
   C. insects
   D. plants

10. Plants and animals are very important to each other. Animals provide plants carbon dioxide. What do plants provide animals?
    A. chlorophyll
    B. oxygen
    C. photosynthesis
    D. water
11. Which best explains what happened to the population of rabbits that were brought to the island of Australia in the 1800’s?

A. The population decreased because predators moved to Australia.
B. The population decreased because prey moved to Australia.
C. The population increased because there was much food available.
D. The population increased because there was much sunlight available.

12. Which is most likely the cause of small holes starting to form in marble steps and statues?

A. acid rain
B. sunlight
C. wind
D. worms

(II) Completion

1. ___________ always come first in the food chain.
2. In order to survive, an animal must __________ to its environment.
3. A ___________ is the place that provides an organism with food, water and shelter.
4. During the process of photosynthesis, plants use __________, __________, and __________ to make their own food.
5. Polar bears fir is a(n) ___________.
6. Air, water, soil and sunlight are not enough to make a habitat. A habitat also needs ___________ and ___________.
7. Along a food chain, ___________ is passed from one organism to the next.
Unit: Healthy Habitats

(III) Matching

1. _____ food web a. mushrooms, fungi, or mold and bacteria.
2. _____ recycle b. contamination of an environment especially by man made waste.
3. _____ hypothesis c. a plant eating animal
4. _____ decomposers d. how plants and animals in a habitat connect through their food.
5. _____ behavioral adaptation e. returning bottles and newspapers.
6. _____ pollution f. a statement about a possible answer or solution to a problem.
7. _____ herbivore g. wolves hunting in a pack.

(IV) True or False

1. Many food chains make a food web. ______
2. An empty lot is a habitat. ______
3. All food chains start with the sun. ______
4. Plants can survive without light. ______
5. A habitat can recover from a flood. ______
Unit: Light Up Your Life!  
Selected Response

(I) Multiple Choice

1. Which forms of energy are released from a burning candle?
   A. electrical and mechanical
   B. light and heat
   C. magnetic and nuclear
   D. sound and chemical

2. In which direction does light travel?
   A. all directions
   B. back and forth
   C. straight line
   D. up and down

3. Flashlights can be used to make animal shapes on a wall. What happened to size of the animal shapes when the flashlight is moved away from the hands?
   A. disappears
   B. gets bigger
   C. gets smaller
   D. stays the same

4. What part of the eye acts like a movie screen where images focus?
   A. iris
   B. lens
   C. pupil
   D. retina

5. Which mirror makes a small area larger?
   A. concave
   B. convex
   C. flat
   D. opaque
6. When a pencil is dropped into a glass of water the pencil looks like it has cracked in half. What happens to light to make this happen?
   A. It is absorbed.
   B. It is emitted.
   C. It is reflected.
   D. It is refracted.

7. Which type of vision makes nearby objects appear fuzzy?
   A. far-sightedness
   B. irregular
   C. near-sightedness
   D. normal

8. What spectrum of light is seen by humans?
   A. electromagnetic
   B. infrared
   C. ultraviolet
   D. visible

9. What is used to refract light?
   A. microscope
   B. mirror
   C. prism
   D. telescope

10. Why do rainbows appear?
    A. They act like concave lenses.
    B. They act like convex lenses.
    C. They act like mirrors.
    D. They act like prisms.
Unit: Light Up Your Life!

11. When the colours of the rainbow are combined on a colour wheel and spun, what colour is produced?
   A. black
   B. orange
   C. white
   D. yellow

12. If you combine red lenses and yellow lenses what colour will objects appear?
   A. orange
   B. red
   C. white
   D. yellow

13. Plastic cups of different colours are filled with water and placed in direct sunlight. Which coloured cup will show the highest temperature after 60 minutes?
   A. black
   B. blue
   C. red
   D. white

14. What type of object glows in the dark?
   A. electromagnetic
   B. fluorescent
   C. phosphorescent
   D. neon
Unit: Light Up Your Life!  

(II) Completion

1. A red shirt ________ all other colours except red.
2. ________ lenses make objects look bigger.
3. White light can be separated into the colours of the _____________.
4. Light ___________ as it passes from air to water.
5. Light hits an object and is _____________ into your eyes.
6. In a flat mirror, images appear ______________.

(III) Matching

1. _____ transmit a. a block of glass that separates white light.
2. _____ transparent b. electrical energy changing to heat energy.
3. _____ prism c. a lenses that curves inward.
4. _____ retina d. allows light to pass through so that objects can be seen clearly.
5. _____ conversion e. to give or send out energy.
6. _____ concave f. the layer of cells at the back of the eye.
7. _____ emit g. to allow to pass through.

(IV) True or False

_____ 1. A solar water heater is powered by electrical energy.
_____ 2. The colour black does not reflect light.
_____ 3. A shadow is the absence of light.
_____ 4. Cone cells allow use to see shapes only.
_____ 5. An image of a pencil will appear right side up on the retina.
_____ 6. A piece of construction paper is opaque.
_____ 7. Phosphorescent plastic keeps glowing after it has been exposed to light.
I. Multiple Choice

1. Which structure vibrates in your throat to produce the sound of your voice?
   A. esophagus
   B. larynx
   C. tonsils
   D. vocal cords

2. What is always needed for sound to be produced?
   A. electricity
   B. heat
   C. vibrations
   D. waves

3. What do the large flat panels that hang on walls in movie theatres do to sound?
   A. absorb
   B. convert
   C. measure
   D. reflect

4. Which object can force sound in one direction?
   A. amplifier
   B. megaphone
   C. microphone
   D. speaker

5. Why do you hear an echo when you scream under a bridge?
   A. A person is on top screaming back what you screamed.
   B. Cold air makes the sound of the scream come back to you.
   C. The sound bounces off the walls and ceiling of the bridge.
   D. The trucks and cars above sound like your scream.
6. What does a human’s middle ear look like?
   A. rabbit
   B. snake
   C. snail
   D. worm

7. Which produces a high frequency sound?
   A. fire truck
   B. flute
   C. foghorn
   D. tuba

8. Which animal can hear a lower frequency than a human?
   A. bat
   B. dolphin
   C. grasshopper
   D. robin

9. What is the height of a sound wave?
   A. amplitude
   B. cycle
   C. frequency
   D. pitch

10. What do doctors use to see unborn babies inside their mothers’ bodies?
    A. sonar
    B. sonogram
    C. spectrograph
    D. stethoscope
(II) Completion
1. Sound is a form of energy caused by ________________.
2. A fog horn makes a ________ pitched sound.
3. Sound travels ____________.
4. Sound waves move in ____________ directions.
5. Mud, grass and fabric ____________ sound.
6. Objects vibrating faster have a ____________ pitch.
7. Jackhammers cause noise ____________.

(III) Matching
1. ______ vocal cords       a. the ability to make things move
2. ______ energy           b. energy needed to iron your clothes
3. ______ megaphone        c. used to measure frequency
4. ______ soundproof       d. a device that amplifies sound
5. ______ hertz            e. folds in your throat that vibrate and
                           produce sound
6. ______ sign language    f. allowing no sound to escape.
7. ______ electrical       g. communicating using your hands.

(IV) True or False
1. Sound cannot travel through water. ______________
2. Dogs and cats can hear sounds so quiet that humans hear nothing. ______
3. Sound travels faster through water than air. ____________
4. The emptier the room the greater the echo you will hear. ____________
5. The farther sound waves travel, the stronger they get. ____________
6. A crickets ears are located on its back legs. ____________
Unit: Rockhound

(I) Multiple Choice

1. Which properties are used to describe rocks?
   A. cold, warm, thin
   B. color, texture, hardness
   C. heavy, light, smelly
   D. square, fat, round

2. In which type of rock would you expect to find fossils?
   A. aluminum
   B. gemstone
   C. mudstone
   D. zinc

3. How can you show the true color of a mineral?
   A. rub it across porcelain
   B. shine a light on it
   C. test it for magnetism
   D. weigh it on a scale

4. Which substance makes limestone fizz when dropped on it?
   A. lemon juice
   B. lime juice
   C. salt water
   D. vinegar

5. What is limestone most often used to make?
   A. bricks
   B. cement
   C. jewelry
   D. sculptures
6. Why is diamond listed as number 10 on Moh’s Hardness Scale?

A. all other minerals can scratch it  
B. it can scratch all other minerals  
C. it is least valuable  
D. it is most valuable

7. Which mineral is closest to diamond if Mineral D will scratch Mineral B and Mineral C, but will not scratch Mineral A?

A. A  
B. B  
C. C  
D. D

8. Which is an example of erosion by water?

A. avalanche  
B. hurricane  
C. mudslide  
D. tornado
Unit: Rockhound

9. Which is a result of weathering?
   A. heavy rain
   B. jagged rocks on a cliff face
   C. smooth rocks on a cliff face
   D. volcanoes spewing out lava

10. How would you expect rocks in the middle of a lake to look compared to those near the shore?
    A. flatter
    B. lighter
    C. rougher
    D. smoother

11. Which represents where the bigger, heavier rocks settle first in a lake?
    A. where the river enters a lake
    B. on the shores
    C. in the middle
    D. where the lake empties
Unit: Rockhound

(II) Completion

1. Dropping _______ onto a rock will prove whether the rock contains traces of something that was once living.

2. A(n) _______ is a limestone column formed on the ceiling of an underground cave.

3. _____ is the softest mineral and cannot scratch another mineral.

4. The _______ of a rock classifies whether it is shiny.

5. A(n) _______ test tells the true color of a rock.

6. The mineral _______ is also known as table salt.

7. A(n) _______ makes a sudden change to the landscape.

8. _______ is when a mineral splits along a flat, even surface.

9. A(n) _______ is a rock or mineral that can be cut and polished to make jewelry.

10. When ________ gets into concrete and pavement it forces cracks open wider.

(III) Matching

1. _____ weathering
   - E. the breaking down of rocks by wind, rain and snow

2. _____ gemstone
   - H. a mineral that can be cut, polished and used as jewellery

3. _____ erosion
   - B. when Earth materials wash away

4. _____ geologist
   - G. a scientist who studies rocks

5. _____ crystals
   - I. all minerals are made up of these regular patterns

6. _____ hardness
   - J. the ability of a mineral to resist scratching

7. _____ diamond

8. _____ luster

9. _____ fossil

10. _____ mineral