

“Assessment is only as good as the action that arises from it.”

Types of Assessment

| Formative | Summative |
|--|--|
| <ul style="list-style-type: none">▪ Purpose is to guide instruction and promote learning▪ Takes place as an ongoing parts of teaching▪ Used as a basis for “next steps” in learning▪ Judgement depends on the child’s understanding as well as the criteria; so not comparable for different children | <ul style="list-style-type: none">▪ Purpose is to report achievement at a certain point in time, usually at the end of a unit▪ Used as a report to parents other teachers and pupil on point reached in learning▪ Products of assessment (grades, levels, marks, etc.) means the same for all children |

Definitions for Assessment:

Alternative assessment: any type of assessment in which students create a response to a question, as opposed to assessments in which students choose a response from a given list, such as multiple-choice, true/false, or matching. Alternative assessments can include short answer questions, essays, performance assessments, oral presentations, demonstrations, exhibitions and portfolios.

Assessment: the act of collecting information about individuals or groups of individuals in order to understand them better.

Authentic (assessment): assessment tasks that elicit demonstrations of knowledge and skills in ways that resemble “real life” as closely as possible, engage students in the activity, and reflect sound instructional practice.

Evaluation: a judgement regarding the quality or worth of the assessment results. Evaluations are usually based on the multiple sources of assessment information. For example, “The information we collected indicates that students are performing above expectations.”

Indicator: a more specific description of an outcome in terms of observable and assessable behavior. As indicator specifics what a person who possesses

the qualities articulated in an outcome understands or can do. For example, a student may demonstrate his or her understanding of problem solving by finding a solution to a mathematics problem. The solution is an indicator.

Performance assessment: direct, systematic observation of actual student performances and rating those performances according to pre-established performance criteria.

Performance criteria: a description of the characteristics that define the basis on which the response to the task will be judged. Performance criteria are expressed as a rubric or scoring guide.

Rubric: an established and written down set of criteria for scoring or rating students' performance on tests, portfolios, writing samples or other performance tasks.

Scale: the range of scores possible on an individual item or task. Performance assessment items are typically scored on a 4 to 6 point scale, compared to a scale of 2 (right/wrong) on multiple-choice items.

Gong and Ochs (1992) gave the following instructions for designing authentic performance tasks:

Six Components of a Performance Assessment

| Components of Performance | Design Issues |
|----------------------------------|---|
| Assessment Context and Purpose | What is the purpose of the assessment? What information will be gathered? What decisions will be made, by whom? What its relation to curriculum, instruction, etc.? |
| Assessment Task | What is the nature of the task to be done? What does it represent? How does it relate to the curriculum? What types of performances are desired and expected? How extensive is it in scope? How authentic is it? |
| Assessment Performance | How do the persons performing interact with the task, e.g., what are their motivations, what cognitive processes and knowledge are used? What performance, products, or other evidence are produced? |

| | |
|---|---|
| Performance interpretation and evaluation | How will the person's performances be interpreted and evaluated? What constructs, features, or aspects will be focused on? What will be done to ensure the interpretations are accurate and fair? |
| Representation and reporting of results | How will the assessment results be recorded, processed and reported? What will be done to ensure the reports are clear, useful, and accessible to those who need the information? |
| Decisions and further action | What subsequent decisions and actions will be informed by the assessment results? What difference will the assessment information make in terms of what is thought or done? |

Ideas for Assessment:

- Pre/post test survey
- Assessment of science journal/notebook
- Short answer to a question
- Oral presentation
- Demonstration of a science concept through a drawing or skit

Orange County Department of Education
Outdoor Science School
Friday Review

On your poster find and label the underlined items:

Components of an ecosystem:

Non-living things - things that have never been alive. Label four different non-living things (LAWS).

Living Things:

Producers - Can make their own food using the sun's energy. Label two examples of producers.

Consumers - Get their energy from eating other living things. Label three examples of consumers (see below).

Herbivore

Omnivore

Carnivore

Decomposers - Feed on dead organisms releasing nutrients to be used again. Label three examples of decomposers.

Fungus

Bacteria

Invertebrates

How ecosystems work:

Food Chain - How energy moves through the ecosystem. Food chains start with the sun. Show an example of a food chain.

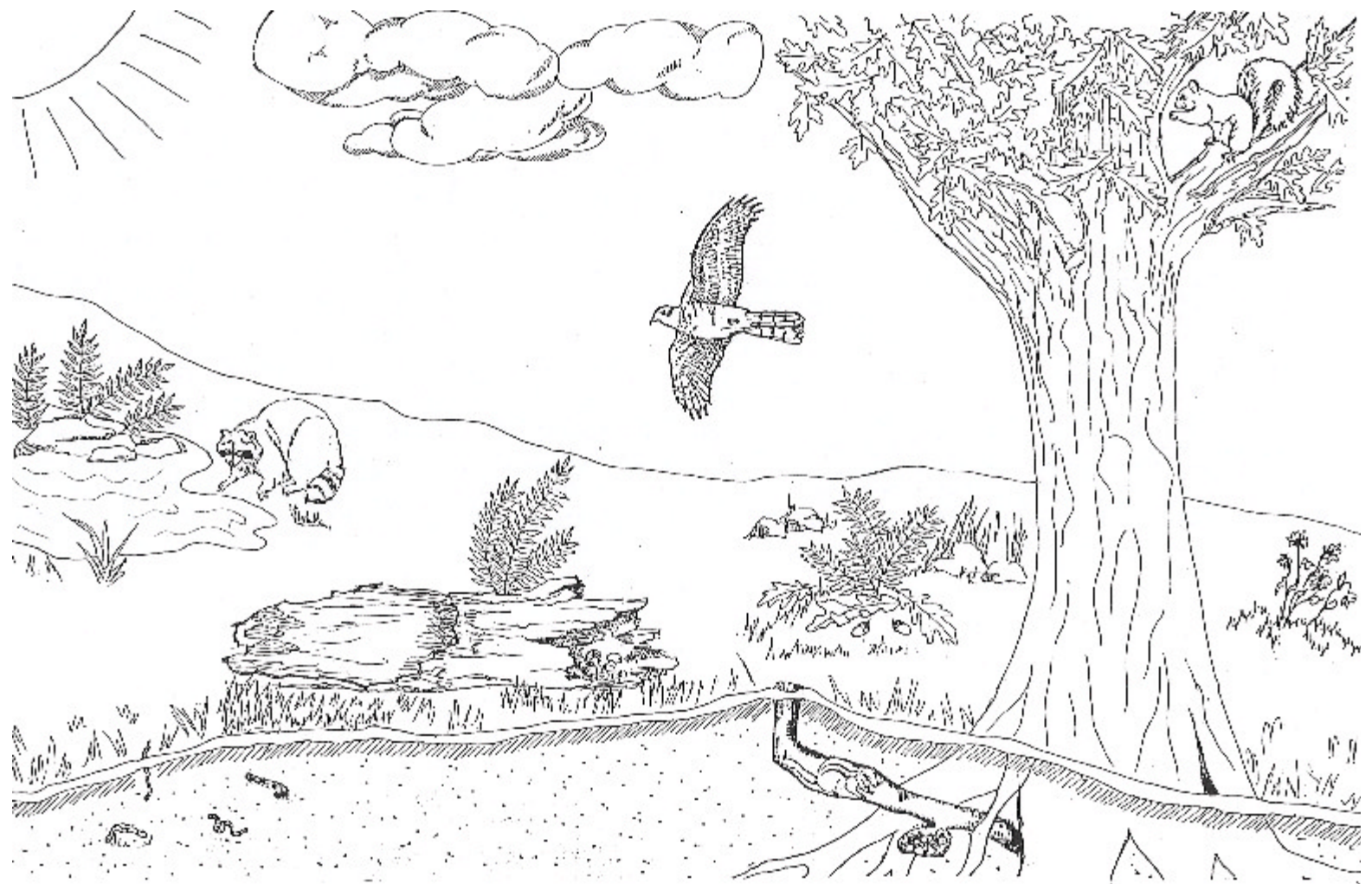
Cycles - Most nonliving things move through the ecosystem in a circle allowing them to be used over and over. Show the Water Cycle.

Interdependence - the web of relationships between parts of the ecosystem. Show examples of the following relationships:

Living and Living

Living and Nonliving

Nonliving and Nonliving



NAME_____

DATE_____

SCHOOL_____

FIELD INSTRUCTOR_____

Science Assessment: Justified Multiple-Choice Question

Directions: Please circle the best answer for each of the following items.
Explain why you chose your answer.

A field class went hiking in the woods.

On their hike they discussed the flow of energy in this ecosystem. Which set show how the energy flows in this ecosystem.

- A. Grain- Hawk- Snake-Mouse
- B. Hawk- Mouse- Snake- Grain
- C. Grain- Mouse-Snake-Hawk
- D. Grain-Snake-Mouse-Hawk

Name _____ Hike Group ___ School _____

1. Green Plants make their own food through the process of photosynthesis by using _____.
 - a. Dirt, worms, and fertilizer
 - b. Sugar, O₂, soil
 - c. Sunlight, water, CO₂
 - d. Gasoline, cereal, water

2. Fog and clouds are examples of which part of the water cycle?
 - a. evaporation
 - b. precipitation
 - c. percolation
 - d. condensation.

3. We can protect our supply of fresh water by_____.
 - a. fixing dripping faucets
 - b. keeping pollutants out of water.
 - c. taking shorter showers
 - d. all of the above

4. The uneven heating of the earth by the sun causes _____.
 - a. air movement (wind)
 - b. earthquakes
 - c. solar eclipse
 - d. day and night

5. The star in the center of our solar system is_____.
 - a. the earth
 - b. north star
 - c. andromeda
 - d. the sun

6. To conduct a scientific experiment first _____.
 - a. draw a conclusion
 - b. develop a question
 - c. conduct experiments
 - d. control variables

7. Which food chain is listed in the correct order?
- sun, plants, herbivore, carnivore
 - carnivore, herbivore, plants, sun
 - herbivore, plants, sun, carnivore
 - herbivore, carnivore, plants, sun
8. Choose the correct definition of erosion.
- heating water and turning it into a gas
 - the process where a plant turns the sun's energy into a food
 - the concept where a living and nonliving thing are connected.
 - the washing and wearing away of land by wind and water.
9. Which of the following geologic occurrences are caused by plate tectonics (the movement of the earth's surface).
- glaciers
 - earthquakes
 - hurricanes
 - forest fires
10. If one hundred acres of woods supports 10 squirrels, and 10 acres is clearcut how many squirrels would it now support?
- 110
 - 9
 - 100
 - 1
11. Which of the following lists includes all of the layers of the earth.
- crust, mantle, core
 - mantle, magma, fault
 - lava, atmosphere, oceans
 - herbivore, carnivore, herbivore

NAME _____

DATE _____

SCHOOL _____

FIELD INSTRUCTOR _____

Science Assessment: Open-ended Question

Directions: This is an open-ended question. Your answer will be judged on how well you show your understanding of science and on how well you can explain it to others. Please write your response in the space below the question and on the back page, if necessary. You may include a picture to help explain your answer.

Neesha put snails and plants together in a jar of pond water. She sealed the jar and placed it under a bright light. After several days she checked the jar and found that the snails and plants were alive and healthy. Explain why they stayed alive.

Name _____

School _____

Date _____

Field Instructor _____

PRE/POST-TEST

1. All communities are made up of _____ and _____.

2. What kinds of factors affect a population of animals?

3. The Solar System consist of _____, _____, _____

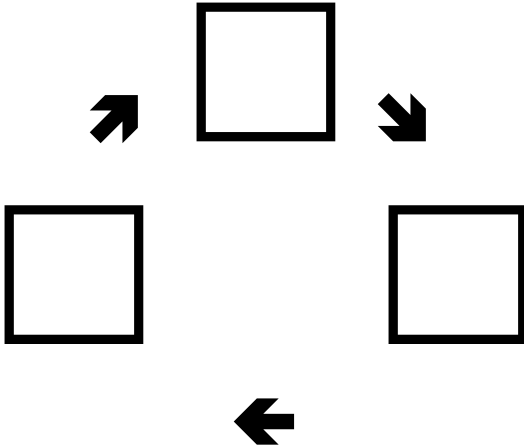
and, _____ that orbit around our sun.

4. Plants convert _____, _____, _____,

to produce _____ and _____.

5. In a plant, xylem and phloem are used to transport _____ and _____.

6. Draw a picture of the water cycle.



7. What is one thing you can do to help the environment? Why?

8. Succession is _____

9. Give 3 adaptations of an owl.

1. _____

2. _____

3. _____

10. What types of weathering reshape the land? _____, _____,

_____ and, _____.

11. Draw an example of a food web.

12. Draw a picture of the energy cycle include producers, consumers, scavengers, and decomposers.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Office of Outdoor Education

STUDENT EVALUATION

1. Circle the number that shows what you think of each of the following parts of the Clear Creek Outdoor Education program:

| | Poor | Good | Great |
|--------------|------|------|-------|
| Naturalist | 1 | 2 | 3 |
| Museum | 1 | 2 | 3 |
| Campfires | 1 | 2 | 3 |
| Cabin Living | 1 | 2 | 3 |
| Crafts | 1 | 2 | 3 |
| K.P. | 1 | 2 | 3 |

2. What was the most important thing you learned at the outdoor school?

3. What was your favorite experience at Clear Creek?

4. What was your least favorite experience?

Please turn over and complete other side.

5. Did you have the opportunity to work together and cooperate with others at the Outdoor Science School? Often Sometimes Never

6. If you could, would you return to Clear Creek? Yes No

7. Name your favorite hike: _____

8. What new way(s) did you learn to take care of our earth?

9. Mark an X in the space that best describes how much you learned about each of the following topics:

| | A Lot | Some | Not Much |
|------------|-------|-------|----------|
| Plants | _____ | _____ | _____ |
| Animals | _____ | _____ | _____ |
| Night Hike | _____ | _____ | _____ |
| Weather | _____ | _____ | _____ |
| Rocks | _____ | _____ | _____ |