Montana Comprehensive Assessment System *(MontCAS, Phase 2)*

Criterion-Referenced Test (CRT)

COMMON CONSTRUCTED-RESPONSE ITEM RELEASE
SCIENCE, GRADE 4

2008

OPI

OFFICE OF PUBLIC INSTRUCTION

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Science

Session 1

Write your answer in the space provided for it in your Student Response Booklet.

27. The desert is a type of environment found in parts of North America, Europe, and Asia.
    a. Describe **two** physical characteristics of the desert environment. You may use drawings.
    b. Identify **two** organisms that live in the desert.

Scoring Guide

Score	Description
4	Student demonstrates, through words or pictures, a thorough understanding of the physical characteristics and organisms in the desert. Response describes two physical characteristics of the desert and identifies two organisms living there. Response contains no errors.
3	Student demonstrates, through words or pictures, a general understanding of the physical characteristics and organisms in the desert. Response provides three of the four required responses to the item. Response contains an error or omission.
2	Student demonstrates, through words or pictures, a limited understanding of the physical characteristics and organisms in the desert. Response provides two of the four required responses to the item. Response contains errors or omissions.
1	Student demonstrates, through words or pictures, a little understanding of the physical characteristics and organisms in the desert. Response provides one of the four required responses to the item. Response is minimal.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

a. The desert has very little rainfall and extreme temperatures with limited plant and animal life (e.g., sand, sand dunes, and rocky soil).

b. Organisms that live in the desert include rattlesnakes, roadrunners, jack rabbits, coyote, lizards, tarantulas, cacti, creosote bush, Joshua tree, Yucca, ocotillo, scorpions, bugs, and tortoises.

Note: When a response contains a drawing, it must be clear enough to demonstrate the concept. Clear drawings do not have to be labeled.

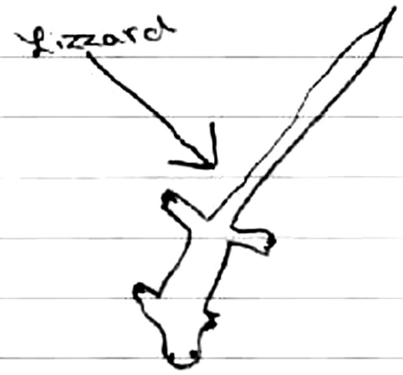
Score Point 4

The desert enviromel is a hot and sandy place It does not have much water. and their are sand dunes. Two aminals or plants that live in the desert are somakes and cactus

Score Point 3

A One of the physical Characteristics of a desert is that people would'nt go there and probley because all the animal's. 2nd Is the the extremley hot climete. ← section A

B



Score Point 2

(A) There would be people in clores like shorts and T Shirs.

There would be animals like a Snake and a Scorpin.

(B)

Score Point 1

A) I have ~~two~~ charteristicks. They are good things.

B) A snake lives in the dessert. A worm lives in the dessert.

Score Point 0

it is good and tasty.
people eat it. shuger lives
in desert.

Science

Session 3

Write your answer in the space provided for it in your Student Response Booklet.

81. Daniel thinks flowers will bloom sooner if they are grown in soil with fertilizer instead of soil without fertilizer. He is designing an investigation to test his idea.

    Describe **three** things Daniel must do to make his investigation a scientific test.

Scoring Guide

Score	Description
4	Student demonstrates a thorough ability to recognize a scientific test and conduct an investigation. Response describes completely three things Daniel must do to make his investigation a scientific test. Response contains no errors.
3	Student demonstrates a general ability to recognize a scientific test and conduct an investigation. Response describes at least two things Daniel must do to make his investigation a scientific test. Response contains an error or omission.
2	Student demonstrates a limited ability to recognize a scientific test and conduct an investigation. Response describes one thing Daniel must do to make his investigation a scientific test. Response contains errors or omissions.
1	Student demonstrates little ability to recognize a scientific test and conduct an investigation. Response describes something relevant to the experimental setup but does not include a necessary control per se. Response is minimal.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Things that Daniel must do to make his investigation a scientific test include:

- use the same type of plant for all parts of the investigation
- use the same type of soil, except for the presence/absence of fertilizer
- give the plants the same amount of water
- make sure the plants get the same amount of sunlight
- make sure the plants experience the same temperature, weather, etc.
- keep the plants in the same location
- use the same type of container for both plants
- make predictions
- keep good records
- repeat experiment
- know how to take care of plants
- make careful observations
- form a conclusion/report
- collect data/research before testing
- scientists work in groups and communicate
- make sure he has clean conditions before testing (no contaminates)

Special Notes

a. Responses that contain “how a plant grows” or “list of materials” should be given one point.
b. Responses containing labeled drawings to show experimental setup, etc., must thoroughly explain concept(s) mentioned in the bulleted list above.

Score Point 4

First Naniel most try a flower in soil with fertilizer and one without. Second Naniel he has to give them the same amout of sunlight and water each day. Thindly, he has to record his observations and take pictures.

Score Point 3

Danial must get soil with fertilizar and get soil without fertilizar to make his investigation a scientific test. Then Danial must gets seeds and put one seed in one pot without fertilisar, and put one seed in the pot with fertilizar. After that Danial must water the seeds and then see what one blooms faster. That is how you would make that a scientific test.

Score Point 2

Daniel can plant a flower with really poor soil,
Daniel can also put a plant in a cup with soil and fertilizer, and he can also put a plant with just soil.

Score Point 1

He will need tow flowers, fertilizer and soil ~~the~~
to mack it scientific

Score Point 0

Daniel must do both things and see what happens.