

Components of Activity

Earth 41& Earth 42

WHAT THIS ACTIVITY IS ABOUT: This activity is about cross-cutting concepts in science.

Crosscutting Concepts represent common themes that span across science disciplines. These concepts identify universal properties and processes found in all the science disciplines.

INSTRUCTIONS:

1. Briefly scan through each paragraph before starting.

2. Carefully read the 1st paragraph. Underline and/or circle key ideas and words.

Circle either YES or NO for each of the cross-cutting concepts on that page that apply.

3. Carefully read the 2nd paragraph. Underline and/or circle key ideas and words.

Circle either YES or NO for each of the cross-cutting concepts on that page that apply

4. Return to the 1st paragraph. Write a brief response for each cross cutting concept marked YES.

At bottom of page, circle the number of the cross-cutting concept which BEST fits the paragraph.

5. Return to the 2nd paragraph. Write a brief response for each cross cutting concept marked YES.

At bottom of page, circle the number of the cross-cutting concept which BEST fits the paragraph.

6. At the bottom of each page, describe WHY you selected that cross-cutting concept as the BEST fit.

7. Complete a VENN diagram on the back page for the two topic paragraphs.

8. Write a 50 word essay. Summarizing your discoveries, ideas, and conclusions about the paragraphs.

Earth 41 Climate Change

Climate change is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e., decades to millions of years). Climate change may refer to a change in average weather conditions, or in the time variation of weather within the context of longer-term average conditions. Climate change is caused by factors such as biotic processes, variations in solar radiation received by Earth, plate tectonics, and volcanic eruptions. (topic) Does this paragraph mention, describe, imply, refer to, or convey:

1. (YES) (NO) any **patterns**?
in what way >> _____

2. (YES) (NO) any **cause and effect**?
in what way >> _____

3. (YES) (NO) a **quantity, numeric scale, or proportion**?
in what way >> _____

4. (YES) (NO) a **system, or organized structure**?
in what way >> _____

5. (YES) (NO) about **energy or matter**? (*Especially flows, cycles, and conservation*)?
in what way >> _____

6. (YES) (NO) the **structure or function** of something?
in what way >> _____

7. (YES) (NO) concepts of **stability and/or change**?
in what way >> _____

Circle the number which BEST represents the paragraph? (1) (2) (3) (4) (5) (6) (7).

Why did you choose this number? >> _____

Earth 42 Our Solar System

Planetologists study the planets of our solar system and beyond. Space probes send photos and data from distant systems. In our own solar system the robot probe Curiosity crawls the surface of Mars to analyze soil samples and transmit data to Earth. (topic) Does this paragraph mention, describe, imply, refer to, or convey:

1. (YES) (NO) any **patterns**?
in what way >> _____

2. (YES) (NO) any **cause and effect**?
in what way >> _____

3. (YES) (NO) a **quantity, numeric scale, or proportion**?
in what way >> _____

4. (YES) (NO) a **system, or organized structure**?
in what way >> _____

5. (YES) (NO) about **energy or matter**? (*Especially flows, cycles, and conservation*)?
in what way >> _____

6. (YES) (NO) the **structure or function** of something?
in what way >> _____

7. (YES) (NO) concepts of **stability and/or change**?
in what way >> _____

Circle the number which BEST represents the paragraph? (1) (2) (3) (4) (5) (6) (7).

Why did you choose this number? >> _____
