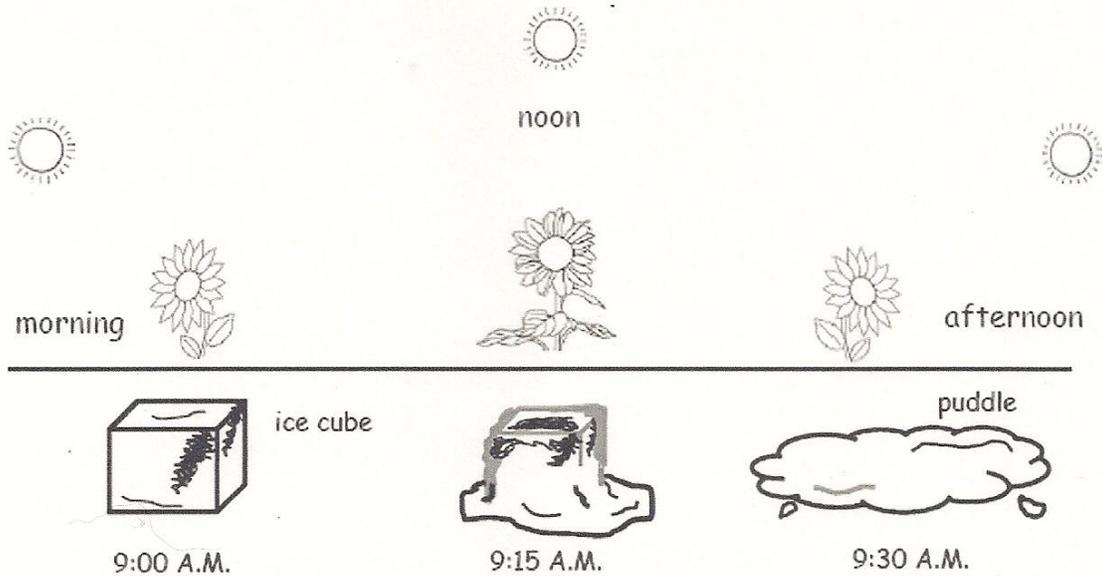


Plant vs Ice Cube Prompt



Both the sunflower and the ice cube above are responding to their environments.

Why then is the sunflower considered biotic (living) and the ice cube abiotic (nonliving)?

Plant vs Ice Cube Response Rubric

Level 4 Response:

Includes reference to all six characteristics, as well as specific mentions of how each item meets or doesn't meet these characteristics.

The ice cube is melting in the heat of the sunlight, while the sunflower is turning its head with the sun's motion as an environmental response. The reason why it moves is to maintain its metabolism. The sunflower is also made of many cells in its leaves, grows from a seed, reproduces to make other sunflowers, and dies. That is why it is biotic. The ice cube does not have any of these additional characteristics of life, so it is abiotic.

Level 3 Response:

Includes reference to all six characteristics in general, while stating which item meets or doesn't meet all six characteristics.

The sunflower is biotic because it demonstrates all six characteristics, not just environmental response. The ice cube is abiotic because it does not have any other characteristics of living organisms.

Level 2 Response:

Includes reference to specific characteristics of life, but doesn't reference the need to meet all six characteristics to be considered biotic.

The sunflower is biotic because it also grows and dies. The ice cube just melts and doesn't grow or die, so it is abiotic.

Level 1 Response:

Defines biotic and abiotic, but doesn't provide evidence for conclusion.

The sunflower is biotic because it is alive. The ice cube is abiotic because it isn't alive.