

Answers from the Ice Cube Race activity

- The ice cube in the sun will melt faster because it absorbs the heat energy from the sun.
- To be a fair race, the two ice cubes have to be the same size, otherwise it would be like having a race between two cars on different length tracks!
- The ice cube in the sun would still melt faster than the one in the shade because it is still absorbing the heat from the sun, but it would take a lot longer to melt!

Background information about infrared radiation

Part of the energy waves coming from the sun (the electromagnetic spectrum) is infrared radiation. It is what makes you feel warmer when you stand in sunlight compared to standing in the shade. On a sunny day that could be about 30 degrees higher than the actual air temperature. When infrared radiation strikes an object, that object can reflect or absorb the radiation (or a combination of both). An object that feels warmer when it is in the sun, is absorbing the radiant energy in the sunlight.

Related books for young students

Sun by Steve M. Tomecek (National Geographic Society, 2001)