

Name: _____ Date: _____

Mechanisms of Energy Transfer

Thermal energy transfer can happen between two objects that are in contact with each other, by the flow of material from one place to another, and through electromagnetic waves.

Identify which types of energy transfer are occurring in each of the scenarios below, and predict what will happen in each case. Remember that more than one form of energy transfer can occur in a given situation.

1. Scenario: You place a spoonful of frozen ice cream on your tongue.

(a) Type(s) of energy transfer:

(b) Where will each form of transfer occur?

(c) What will happen and why?

2. Scenario: You place a mug of hot tea on the table in a cool room.

(a) Type(s) of energy transfer:

(b) Where will each form of transfer occur?

(c) What will happen and why?

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Mechanisms of Energy Transfer (*continued*)

3. Scenario: You place a cold metal sphere in a container of hot water.

(a) Type(s) of energy transfer:

(b) Where will each form of transfer occur?

(c) What will happen and why?

4. Scenario: You place a piece of hot rock into a metal container, and then remove all the air from the container.

(a) Type(s) of energy transfer:

(b) Where will each form of transfer occur?

(c) What will happen and why?
