

# Science Task 1: Heat Transfer

## Materials and Setup

### Item 1

paper cup  
with warm water



(teacher provided)

### Item 2

paper cup  
with warm water



(teacher provided)

ice cube



(teacher provided)

### Item 3

warmer



colder



### Item 5

warmer



colder



### Item 4

warmer



colder



### Item 6

ice



sunny



## Adaptive Instructions

### Item 1

For this item, fill a paper cup with warm tap water that is comfortable to touch.

## Access Limitations

N/A (Not Applicable) (Item 1, 2, 3, 4, 5, 6)

Science Task 1:

Heat Transfer: Item 1

Setup

paper cup  
with warm water



(teacher provided)

Script

Say: *We're going to talk about heat. Here is a cup of warm water. Feel the cup.*

Do: Allow the student to feel the warm cup.

Say: *The warm water makes the cup feel warm.*

Do: Allow the student time to respond.

Record 4 points:

- Student demonstrates **sustained involvement** in the activity; for example, he or she may
- consistently attend to teacher's communication (verbal or signed) and actions;
  - participate with intention in action involving the objects as modeled;
  - imitate (or try to imitate) action involving the objects as objects;
  - shift body movement/eye gaze appropriately as focal point of demonstration changes;
  - make an appropriate vocalization (e.g., an associated sound) in response to objects; and/or
  - demonstrate anticipation or prediction of next words and/or actions.

Record 3 points:

- Student demonstrates **generally maintained involvement** in the activity; for example, he or she may
- generally attend (with infrequent lapses) to teacher's communication (verbal or signed) and actions;
  - touch or point to object(s) as described;
  - sustain gaze toward object(s) during manipulation by teacher;
  - vocalize to show acknowledgment of object(s) during manipulation/exploration; and/or
  - willingly permit (participate in) hand-over-hand exploration of object(s).

Record 2 points:

- Student demonstrates **intermittent/irregular involvement** in the activity; for example, he or she may
- intermittently attend to teacher's communication (verbal or signed) and actions;
  - move toward/reach for the object(s) presented;
  - touch the object(s) presented; and/or
  - look at the object(s) presented, shifting gaze at least sometimes as appropriate.

Record 1 point:

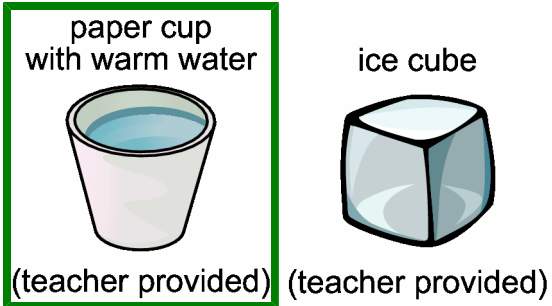
- Student demonstrates **fleeting awareness** of, but little/no involvement in, the activity taking place; for example, he or she may
- only fleetingly attend to teacher's communication (verbal or signed) and actions;
  - exhibit a momentary change in movement, vocalization, and/or respiration in response to teacher and/or object(s);
  - open or move eyes toward teacher and/or object(s); and/or
  - permit guided touch/grasp of object as initially presented.

Record N:

Student does not demonstrate any awareness of the object(s) or involvement in the activity taking place or may refuse to engage in the activity at any level.

## Heat Transfer: Item 2

### Setup






### Script

Do: Allow the student to touch the outside of the cup and touch the ice cube.

Say: **Show (tell) me, which is warmer: the cup of water** (indicate the cup of water) **or the ice cube** (indicate the ice cube)?

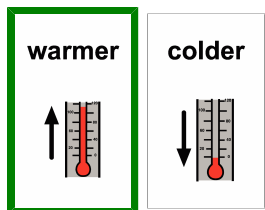
**TRY 1**

|   |   |          |   |           |
|---|---|----------|---|-----------|
|  | → | Record 1 | → | Next Item |
|  | → | Record 0 | → | Next Item |
|  | → | Record N | → | Next Item |

Science Task 1:

Heat Transfer: Item 3




Setup



Script

Say: **Show (tell) me, what will happen if we pour the warm water into a cold cup? Will the cold cup become: warmer** (indicate the warmer card) **or colder** (indicate the colder card)?

**TRY 1**

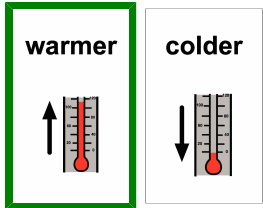
|   |          |   |             |
|---|----------|---|-------------|
|  → | Record 1 | → | Next Item → |
|  → | Record 0 | → | Next Item → |
|  → | Record N | → | Next Item → |

The 'TRY 1' section is a grey header. Below it is a table with three rows. Each row starts with a circular icon (Correct, Incorrect, or N) followed by a right-pointing arrow. The second column contains a white box with the text 'Record 1', 'Record 0', or 'Record N'. A right-pointing arrow follows each box, leading to a white arrow labeled 'Next Item'.

Science Task 1:

Heat Transfer: Item 4




Setup



Script

Say: **Show (tell) me, what will happen if we put a spoon in the warm water? Will the spoon become: warmer** (indicate the warmer card) **or colder** (indicate the colder card)?

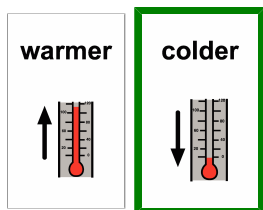
**TRY 1**

|   |   |          |   |           |
|---|---|----------|---|-----------|
|  Correct   | → | Record 1 | → | Next Item |
|  Incorrect | → | Record 0 | → | Next Item |
|  N         | → | Record N | → | Next Item |

Science Task 1:

Heat Transfer: Item 5




Setup



Script

Say: **Show (tell) me, what will happen to the temperature of hot water if we leave it sitting out all day? Will it become: warmer (indicate the warmer card) or colder (indicate the colder card)?**

**TRY 1**

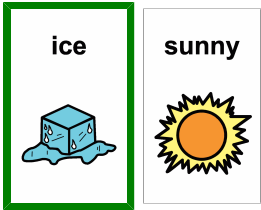
|   |   |          |   |           |
|---|---|----------|---|-----------|
|  | → | Record 1 | → | Next Item |
|  | → | Record 0 | → | Next Item |
|  | → | Record N | → | Next Item |

The 'TRY 1' section contains a table with three rows. Each row starts with a circular icon (Correct, Incorrect, or N), followed by a right-pointing arrow, a rectangular box containing a record number (Record 1, Record 0, or Record N), another right-pointing arrow, and a 'Next Item' button with a right-pointing arrow.

Science Task 1:

Heat Transfer: Item 6

Setup






Script

Say: **Show (tell) me, how can we cool off the water faster: put ice cubes in it** (indicate the ice card) **or put it in the sunlight** (indicate the sunny card)?

At the completion of the task say: **We're finished talking about heat.**

**TRY 1**

|   |   |          |   |           |
|---|---|----------|---|-----------|
|  Correct   | → | Record 1 | → | Next Item |
|  Incorrect | → | Record 0 | → | Next Item |
|  N         | → | Record N | → | Next Item |

The 'TRY 1' section is a grey header. Below it is a table with three rows. Each row starts with a circular icon (green for 'Correct', red with a slash for 'Incorrect', and orange for 'N'), followed by a right-pointing arrow, a white rectangular box containing the text 'Record 1', 'Record 0', or 'Record N', another right-pointing arrow, and a white arrow-shaped button labeled 'Next Item'.

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