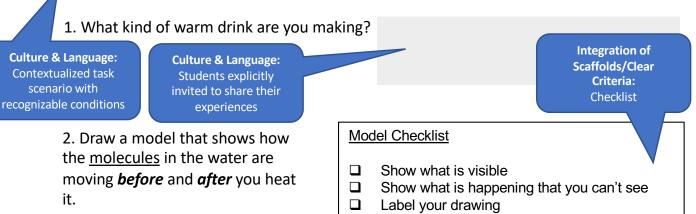
Directions: Read the story below and use it to draw and explain a model about energy. You may use all your linguistic resources to do so, and write your response in any language.

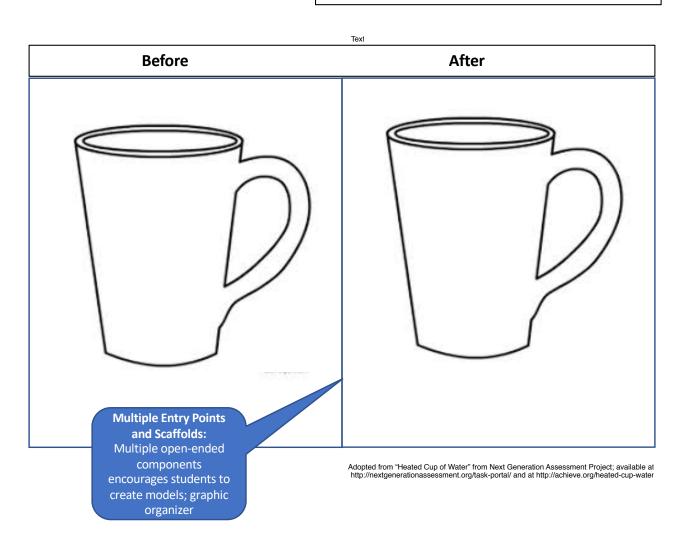
Instrucciones: Lea la historia a continuación y úsela para dibujar y explicar un modelo sobre la energía. Puede utilizar todos sus recursos lingüísticos para hacerlo y escribir su respuesta en cualquier idioma.

Language: Task instructions in English & Spanish, students explicitly invited to translanguage

Culture &

Imagine you heat a cup of water in the microwave to make a warm drink. You heat the water for about one minute, so it does not steam or boil.





3. In the grey space below, explain what happens when you heat the liquid in the cup.

Explanation Checklist

- □ Explain <u>how the molecules move</u> *before* and *after* you heat the liquid in the microwave.
- Explain how the motion of the molecules in the liquid relates to the <u>temperature</u> *before* and *after* you heat the liquid.
- Explain how the motion of the molecules relates to <u>kinetic</u> and thermal energy.

Alignment and Rigor: Grade-level academic vocabulary and cognitively challenging components

Multiple Entry Points: Open-ended components; encourages students to include written explanation with their models

> Adopted from "Heated Cup of Water" from Next Generation Assessment Project; available at http://nextgenerationassessment.org/task-portal/ and at http://achieve.org/heated-cup-water

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Instrucciones: Lea la historia a continuación y úsela para dibujar y explicar un modelo sobre la energía. Puede utilizar todos sus recursos lingüísticos para hacerlo y escribir su respuesta en cualquier idioma.

Imagine you heat a cup of water in the microwave to make a warm drink. You heat the water for about one minute, so it does not steam or boil.

1. What kind of warm drink are you making?

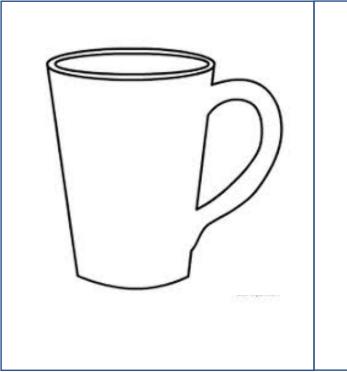
2. Draw a model that shows how the <u>molecules</u> in the water are moving **before** and **after** you heat it.

Model Checklist

- □ Show what is visible
- □ Show what is happening that you can't see

After

Label your drawing





Adopted from "Heated Cup of Water" from Next Generation Assessment Project; available at http://nextgenerationassessment.org/task-portal/ and at http://achieve.org/heated-cup-water

Before

3. In the grey space below, explain what happens when you heat the liquid in the mug.

Explanation Checklist

- □ Explain <u>how the molecules move</u> *before* and *after* you heat the liquid in the microwave.
- □ Explain how the motion of the molecules in the liquid relates to the <u>temperature</u> *before* and *after* you heat the liquid.
- □ Explain how the motion of the molecules relates to <u>kinetic</u> <u>and thermal energy</u>.

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