



PUZZLE: BAKE A TREAT USING HONEY

STANDARDS & CONNECTIONS: NSFACS:8.5.10

SUGGESTED MATERIALS: Access to the internet (for recipes), honey, other ingredients for recipe, oven, baking pans, oven mitts

BACKGROUND: Honey is a natural product made from bees. As bees fly around from flower to flower they collect nectar. When they return back to the hive the nectar gets broken down into simple sugars which are stored inside the honeycomb. The most common form of honey is as a liquid in a bottle or jar, but it can also be enjoyed as a comb, crystallized, and whipped. The nectar of the flowers that the bees gather determines the color, aroma, and flavor. Honey has a handful of uses. It's used as a sweetener in baked goods and provides natural energy. Honey has been used for centuries to suppress coughs and soothe sore throats too.ⁱ

1. IDENTIFY: Share the background information with the students, then share the puzzle to be solved. Determine constraints (e.g., time allotted, space, materials provided, etc.) and divide students into small groups.

2. IMAGINE: Ask a series of questions to help students brainstorm solutions to the puzzle. Encourage students to list all ideas – don't hold back! Before moving on, make sure each group selects a solution that fits within the constraints.

- Ask: *How can you solve this puzzle? Which of your ideas can you build a prototype for given the constraints?*

3. DESIGN: Students diagram the prototype, identify the materials needed to build the prototype, and write out the steps to take. Students describe the expected outcomes.

- Ask: *What steps will you take to create your solution? What do you expect your solution to look like and be able to do?*

4. CREATE: Students follow their design plan and build their prototypes. Monitor their progress and remind them about how much time they have.

5. TEST & IMPROVE: Students evaluate their creation and compare it with the expected outcomes. Students seek areas of improvement and make changes where needed.

6. SHARE: Students share their solution to the puzzle and communicate lessons learned.

- Ask: *What was your biggest takeaway? What would you do differently?*

ADDITIONAL RESOURCES: For more background information on this topic, please visit www.purpleplow.org.



Host a teacher appreciation luncheon and serve your honey treats to the attendees.

ⁱ National Honey Board. (2018) *Honey benefits*. Retrieved from <https://www.honey.com/about-honey/honey-benefits>

ⁱⁱ National Honey Board. (2018) *Honey varieties*. Retrieved from <https://www.honey.com/about-honey/honey-varieties>