



PUZZLERS

#21

My Cafeteria Menu



PUZZLE: DESIGN A SCHOOL CAFETERIA MENU (BREAKFAST & LUNCH) FOR ONE MONTH USING MYPLATE GUIDELINES

STANDARDS & CONNECTIONS: NGSS.3-5-ETSI, NGSS.MS-ETSI

SUGGESTED MATERIALS: Paper, colored markers/pens, MyPlate reference information, food magazines, glue

BACKGROUND: Farmers and ranchers are committed to growing and raising healthy, safe food for consumers. They do their part in following state and federal regulations, as well as their own set of protocols for producing healthy food on the farm. As consumers, we have to do our part in caring for and protecting our bodies. Our bodies need the proper fuel to function. This includes a balanced diet of vegetables, fruits, grains, protein and dairy as shown here within the MyPlate guidelines: <https://www.choosemyplate.gov/>.

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.



Ask your school's food service employees to come share their career and how they build the menus.