



PUZZLE: FILM A PUBLIC SERVICE ANNOUNCEMENT ABOUT CONSERVING ENERGY

STANDARDS & CONNECTIONS: NGSS.3-5-ETSI, NGSS.MS-ETSI, NGSS.HS-LS2-7, CCSS.ELA-LITERACY.SL.II-12.5

SUGGESTED MATERIALS: Cell phone, video editing software, access to the internet, paper, colored markers

BACKGROUND: “A PSA (Public Service Announcement) is a short informational clip that is meant to raise the audience’s awareness about an important issue. PSAs may include interviews, dramatizations, animations and many other types of video and audio content.”ⁱ We use energy every day and everywhere - in our homes, in our businesses, when we travel, etc. Energy sources include solar, wind, water, geothermal, biomass, nuclear, coal, oil, natural gas, electricity, stored energy, and hydrogen.ⁱⁱ There are benefits and drawbacks to every type of energy source.

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.



See if you can team up with your school’s computer and video class to create a PSA together.

ⁱ The Pennsylvania State University. (2018). Public service announcement. Retrieved from <https://mediacommons.psu.edu/2017/02/14/public-service-announcement/>

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