

ALL SYSTEMS GO!

ALERT 2ND AND 3RD GRADE STUDENT CRITICAL/CREATIVE THINKING TAKE HOME PROJECTS

NAME: _____ PROJECT DUE DATE: _____

CHOICE 1:

Student Task: Create a representation of an existing system.

Check List:

1. Select a system that is interesting to you.
2. Complete research to better understand the workings of that system.
3. Draw or create AND label a model of that system including what each element is and its role in the system (B, E, I, O, ↔)
 - ☐ boundary (B)
 - ☐ elements (E)
 - ☐ inputs (I)
 - ☐ outputs (O)
 - ☐ interactions (↔)
4. Write a paragraph describing how the system works.
5. Select one element of the system to remove, and write a paragraph describing the changes that would occur in the system with that element removed. Think about the interactions that will be affected and how that changes the output of the system.
6. Use your expertise to present your work and describe your system to the class.

CHOICE 2:

Your Task: Imagine and design an original system.

Check List:

1. A system is a group of parts that work together to make a meaningful whole. Brainstorm:
 - ☐ What is the meaning or function of your system? What comes from it? (output)
 - ☐ What parts are involved in your system? (elements)
 - ☐ What determines what is inside and outside the system? (boundary)
 - ☐ What is entering the system in order to make it work? (inputs)
 - ☐ What parts of the system work together to make the system function? (interactions)
2. Draw or create AND label a model of that system including what each element is and its role in the system (B, E, I, O, ↔).
 - ☐ boundary (B)
 - ☐ elements (E)
 - ☐ inputs (I)
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 - ☐ interactions (↔)
3. Write a paragraph describing how your system works.
4. Use your expertise to present your work and describe your system to the class.

CHOICE 3:

Your Task: Create a poster entry for the [2020 Youth Conservation Poster Contest](#)
Where Would We BEE Without Pollinators

☐ Use the 2020 Poster Contest Information Pages to **closely follow** rules and recommendations to create a poster entry telling your family and friends how and why it is important to practice good conservation habits in your watershed!

CHOICE 4:

Your Task: Create and conduct an original survey project to present in class.

Check List: (possible online resource-<https://www.mathsisfun.com/data/survey-conducting.html>)

1. Create an original and interesting survey question. Original and creative survey questions move past "What is your favorite _____? Or What type of pet do you own?".
2. Conduct your survey by asking family members, close friends, community members (with parental support and permission) to gain at least 15 responses.
3. Organize your results.
4. Present your results (using at least one graph/chart/ or table).
5. Write a descriptive summary of your survey experience explaining your survey process, any challenges or surprises you encountered, and your survey results.

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