

# *The "Do Nothing" Machine*

## *An imaginative place-based activity*

(time varies)

### Objective

Students will use motor skills and creative thinking to construct their own "Do Nothing" machine. This activity encourages young engineers to express themselves, while the facilitator help to draw connections and awareness about stewardship and repurposing our waste.

### Essential Questions

*Choose based on age and interest*

#### Science:

- How can observing nature and being an active citizen help us solve problems?
- What is our role in the environment?
- What methods do engineers and scientists use to solve problems and learn about the world?
- How are form and function related?
- How do we determine if something is 'trash,' and if something is reusable?

#### Art:

- How does art reflect nature as well as shape it?
- Can art serve multiple purposes?

### Materials

- Glue/Tape
- Scissors
- Recyclable construction materials (ex. paper towel rolls, cardboard, water bottles, etc.)
- Disposable construction materials (ex. packaging, non-recyclable plastic, etc.)
- *Optional:* Markers, Crayons, Strings, Twine, etc.

### Background

Students will gain a deeper place-based connection and practice a systems-thinking mindset about the connections between people and the surrounding environment. This activity allows families to explore their interconnected roles and impacts within a place.

#### GRADE LEVEL



PRE-K – 12TH  
GRADE

#### CONNECTIONS TO THE BIG IDEAS OF SUSTAINABILITY



ABILITY TO MAKE  
A DIFFERENCE



PLACE



SYSTEMS



CHANGE OVER  
TIME

#### CURRICULAR CONNECTIONS



SCIENCE:  
SYSTEMS &  
SYSTEMS MODELS



SOCIAL STUDIES:  
PEOPLE, PLACES, &  
ENVIRONMENTS



ART:  
CONNECTING

## Activity

1. Gather supplies; Construction materials can be collected from around the home, or from a neighborhood cleanup (make sure materials are clean, and wash off any dirt/debris).
2. Have your little engineer begin their project. The purpose of their 'machine' is entirely up to them! Assist with cutting and glueing if needed.
3. *Optional:* Older engineers can draw out a 'blueprint' for their machine before building.

*During the Activity: offer ideas for how to use certain materials. Ask questions about the function of each object (Ex. What will this do? How does it affect this other part?).*

## Reflection Questions

*Adapt to age level; these questions spur inquiry and can lead to other questions while motivating creativity and critical-thinking.*

- How can my machine help other people? How can it help the environment?
- What would have happened to the trash if I had not used it?
- What other ways can we reuse our trash?

## Literature Connection

- *The Do-Nothing Machine* by Sharon MacDonald
- *The Dumpster Diver* by Janet S. Wong
- *The Old Red Rocking Chair* by John Sandford
- *What a Waste* by Jess French