**Medicine/Vaccine Container Design Project**

**Teacher notes & discussion questions**

Day 1: Engage students and introduce activity

1. Show drone footage

* *What are some possible uses of drones?*
* *How can drones be used to help people?*
* *What are some limitations of drones?*

1. Discuss how regions of the world are without medical facilities and often don’t have major transportation methods available.

* *How can medicine and vaccines be delivered to remote regions?*

1. Introduce project idea and its objective
2. Brainstorm materials

* *What does biodegradable mean?*
* *What are possible materials that could be used for constructing a container?*

(I supplied Popsicle sticks, masking tape, string, newspaper, cardboard pieces, and cotton balls. Students could bring other items from home)

Days 2-4: Planning, building, initial testing

1. Give time for student groups to plan, build, and test ideas without eggs
2. At end of class, use a few minutes to engage students in a discussion

* *What factors about a material should you consider in order for it to function properly?*
* *What is the function of the container that you are designing?*
* *How can the structure of the container allow it to function?*
* *How can the planned structure of your design be shown on paper?*
* *How can the intended function of your design be shown on paper?*

Day 5: Gallery walk and team presentations

* *How will the structure of your design allow it to function as a protective container?*
* *What will happen to the kinetic energy when the container makes contact with the floor?*

Day 6: Drop Day

Day 7: Analysis/reflection

* *What evidence shows that you were successful (or not)?*
* *How could the Engineering Design Process be continued?*