



## DESIGN A HANDS-FREE HARVEST CONTAINER

### PROBLEM:

Apple harvesting is completed by climbing a ladder, hand picking, and filling bags that are carried over the shoulder.

### CHALLENGE:

Design a machine/container to reduce overall harvest time and make it easier for workers.

### Suggested Materials

- Fabric pieces
- Paper
- Tape or glue
- Yarn
- Popsicle sticks
- Other recycled materials

### QUESTIONS TO CONSIDER:

- How will you keep the apples from bruising?
- How tall is an apple tree?
- How can this reduce worker fatigue from carrying heavy bags, climbing up and down ladders, etc.?

### Fun Fact

The largest apple ever picked from a tree was grown by Chisato Iwasaki in Hirosaki City, Japan. It weighed 4 pounds 1 ounce!

### BEHIND THE SCENES:

Apple blossoms grow in clusters that will then mature into apples. Harvesters have to carry the bags with them and climb ladders to reach the apples, picking the apples one at a time. Once the bags are heavy and full, they climb down the ladder and carefully empty their bags into containers that are attached to a tractor.