

# The \$1,000,000 Orange

**Description**

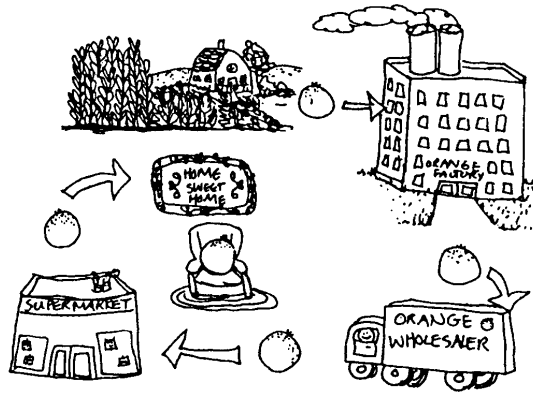
Students make orange “juicicles” to learn the steps and costs involved in food processing from original form to final form.

**Objective**

To demonstrate the increased cost of food as it is processed.

**Materials**

- One orange with price tag
- 1/2 fresh orange per student
- Hand juicer
- Bowl
- Pitcher
- One small paper cup per student
- Masking tape
- One coffee stirrer or juice bar stick per student
- Freezer space
- Knife
- Cutting board
- Measuring cup
- Water



**Preparation**

Draw the following chart on the chalkboard. Have a recorder fill in the chart as the activity progresses.

JOB	PROCESS	MATERIALS	LABOR	ENERGY	COST



What’s the difference between an orange and an orange juice? What steps do you think are taken to make juicicles from oranges? (list on chalkboard) What do these steps involve? (energy, money, labor) If we turned our class into an orange juice factory, how much do you think we would need to charge for a juicicle in order to cover the cost of production? (Record predictions.)



1. Divide the class so that each group of students has a job from item 4.
2. Take the class through the process of making orange juicicles. With each step, discuss the materials, labor, and energy that would be involved.
3. Have the processors at each step determine how much they would charge for their part of the process. The recorder should record this information and then add up the final cost of the orange juicicles.
4. Jobs and steps:

Farmers	Grow and harvest oranges, truck them to processor.
Slicers	Cut oranges in half until there is one half per person.
Juicers	Squeeze orange halves into a bowl.
Blenders	Stir in 1/3 cup of water to the juice of each orange half.
Packagers	Pour mixture into a small paper cup.
Labelers	Put tape on each cup with product name and ingredients label.
Truckers	Carry orange juicicles to freezer.
5. Have students insert sticks into juicicles after 20 minutes.
6. Discuss what price the class would sell their product for in order to pay their costs and make a profit. Why would it be cheaper to buy the ingredients and materials and make it at home?
7. Enjoy the orange juicicles as an afternoon snack.



Why is it more expensive to buy processed foods than unprocessed foods? Name three advantages of buying processed foods. Name three disadvantages. Describe how having so many processed foods affects our society in terms of jobs, costs, energy use, health. Is the cost of food related to nutritional value?



1. Have students research food preparation in other cultures such as that of Native Americans in precolonial times. Compare it with food preparation today.
2. Have students investigate prices of foods in original form and the same product in processed forms. How many processed products can they find for one original food?
3. Have students research the actual breakdown in cost of a food product from farmer to store. Which is the most expensive step? The least? (This will vary for each product, because there are different processing and transporting requirements. Your County Agricultural Extension should be able to provide you with information.)