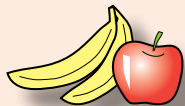




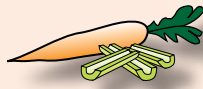
## What Rot!

### Find What You Need...

- Fruits such as bananas and apples
- Veggies such as carrots and celery sticks
- Water
- 2 deep bowls
- Paper plates
- Colored markers
- Vitamin C tablet
- Measuring tools such as rulers or teaspoons
- Knife for slicing (make sure an adult is supervising you)
- Spoon



Fruits



Veggies



Vitamin C tablet



Colored markers



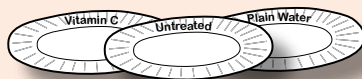
Water



Bowls



Measuring tools



Paper plates



Knife



Spoon

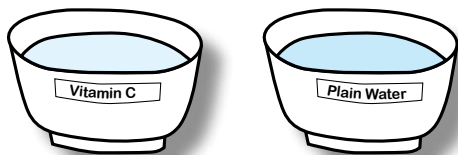
### Can you find ways to keep fruits and vegetables fresh longer?

Just before a space shuttle takes off, a locker with fresh food is loaded on. This locker, which contains foods such as tortillas, bread, rolls, and fresh fruit and vegetables, has no refrigeration. Astronauts must eat the food in this locker within 7 days of taking off. The fresh fruits and vegetables go bad in the shortest time. Astronauts must eat all the fruits and veggies within 2 days of taking off. The fruits

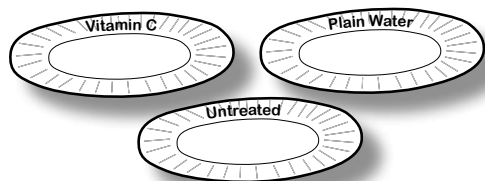
and vegetables turn brown even faster when they are sliced. But slicing the food is a good way for it to travel, because it gets rid of the heavy core and peel and makes it easier to eat. What can you do to the fruits and vegetables to keep them fresh longer, even when they're sliced? Try this experiment to find out.

## Activity Instructions

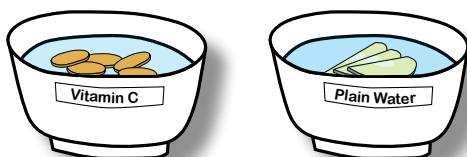
1. Pour water into two small deep bowls. Place a Vitamin C tablet into one, and leave the second as plain water. Label the first one Vitamin C and the second Plain Water. (Hint: If you don't have Vitamin C handy, you can pour in the juice from a whole lemon instead.)



2. Label 3 paper plates with a marker. Label the first plate "Vitamin C". Label the second plate "Plain Water". Label the third plate "Untreated".

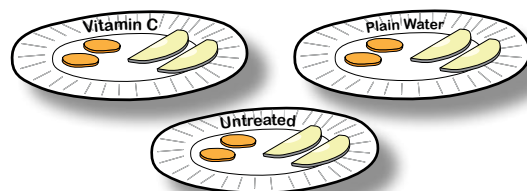


3. Cut a piece of fruit or a veggie into six equal pieces. Place two pieces into each of the two bowls. Make sure that the pieces are completely covered by the water. Place the remaining two slices directly on the plate labeled "Untreated". Leave for about 10 minutes.



4. Remove the pieces of fruit or veggie from the two bowls with a spoon and place each piece on the correct plate.
5. Arrange the pieces so that all of the cut surfaces are exposed to the air.

6. Do this procedure with as many different fruits and veggies as you are testing.



## Conclusions

Which fruits and veggies turned brown the fastest? Which fruits and veggies stayed fresh the longest (took longer to turn brown)? You should have noticed that Vitamin C kept the food fresher. How might this information be used to keep food fresh in space?



## Brain Buster:

If Vitamin C kept food fresh longer, did lemon do the same thing?

Why or why not?

What else can you add to the fruit to keep it fresh?

\* Adapted from the NASA Space Food and Nutrition Guide