

# Orange peel life jacket

## Materials

- 2 oranges
- Tall container filled with water
- Sharp knife for peeling the orange



## Instructions

1. Place one orange in the container of water and notice that it floats.
2. Peel the other orange and put the peel aside. Does this orange float? Does the peel float?

With a group of children you can ask them to predict whether or not the peeled and unpeeled orange will float. Encourage them to observe the different sizes of the oranges, noting that the orange with the peel is larger than the orange without peel.

## What happens?

The unpeeled orange floats, as does the peel, but the unpeeled orange sinks. An object will sink if it has a higher density than water. Density is the amount of mass in a given volume and it is a measure of how tightly packed matter is inside an object. Even though the unpeeled orange is bigger than the peeled orange, it floats because the overall density is lower than water.

## Related activities

Try this experiment with other fruits and vegetables such as lemons and limes. Limes tend to sink whereas lemons float.