



How can a skin be used as a life jacket?
It sounds like a riddle.
It isn't. The answer is hiding inside every
orange on your kitchen bench!



WHAT YOU WILL NEED



- Tall clear glass or large jar



- Water



- 2 oranges or mandarins — same size if possible



- Peeler or your fingers to remove the peel



- Bowl or tray to catch drips (optional)



HOW TO DO IT

1

Fill the Glass

Fill your clear glass or jar about three-quarters full with water.

2

Make Your Prediction

Look at both oranges carefully. They are the same fruit. Write down what you think will happen when they go into the water.

3

Test the Unpeeled Orange

Gently lower one whole, unpeeled orange into the water. Watch carefully. What happened?

4

Test the Peeled Orange

Now peel the second orange completely. Place the peeled orange into the same water. Watch carefully. What happened?

5

Change a Variable

Now investigate like a real scientist! Try a different citrus fruit, thicker or thinner peels, salt water instead of fresh water, or different sized oranges. Make a prediction. Test it. Record your results.



THINK LIKE A SCIENTIST



What happens if you add salt to the water?



Do lemons float the same way?



Does a thicker peel change the result?



Make a prediction. Test it. Record your results. What did you discover?



THE SCIENCE BEHIND IT

Orange peel contains tiny air pockets trapped inside the rind. These air pockets can change how dense the orange is compared to water. When you remove the peel, you remove many of those air pockets. That changes how the orange behaves in water. Write below whether you think each orange will float or sink.

Unpeeled Orange:

I think it will

(float / sink)

Peeled Orange:

I think it will

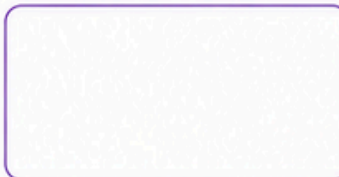
(float / sink)



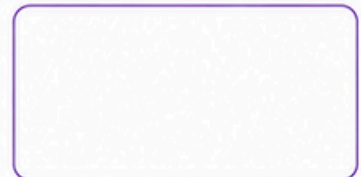
RECORD YOUR DISCOVERY

Draw what happened when you tested each orange.

Unpeeled Orange



Peeled Orange



What did you discover? _____