

PUMPKIN BOATS



Did you know that pumpkins make great boats? Every October on Lake Pesaquid, Nova Scotia, the Windsor Pumpkin Regatta takes place, with participants racing across the lake in giant, painted pumpkins.

Try out your own mini version of pumpkin boats to see whether they float or sink! This experiment is fun for everyone. You can try it alone, with your family or friends, or in your classroom.

Materials

- small to medium size pumpkins
- acrylic paint
- paintbrushes
- newspaper
- rocks or other heavy materials that you can use as weights inside the pumpkin
- large bucket, sink or bathtub

Instructions

1. Have an adult slice the top off all the pumpkins except one. Everyone else can then help scoop the flesh and seeds out onto the newspaper.



- Optional step: Paint your pumpkins! Use pictures of pumpkin races to inspire you. Omit this step if you will be using your bathtub to test if they float.
- Fill your bucket, sink, or bathtub to $\frac{3}{4}$ full with water. Gently lower the pumpkins in, one at a time.
- Guess how many rocks or other objects a pumpkin can hold before it sinks. Find out how much weight the pumpkin can hold by adding one rock at a time. Was your guess correct?
- Now guess whether or not a full (untouched) pumpkin will float. Do a test to see if your answer was correct.



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Did you know?

Buoyancy tells us whether something will sink or float! Pumpkins float in water, which means they are buoyant. First, did you notice that your pumpkin pushed some water out of the way to give itself some room? If a pumpkin is less dense than the water it pushes away, then it will float. Your hollowed out pumpkin was “filled” with air, which means it wasn’t very dense. Even the pumpkin that was left untouched had enough air inside it to make it float. You made your pumpkin denser when you added lots of rocks to it, which made it sink. This is because the pumpkin had become denser than the water it was pushing out of the way.

Suggestions

- Take pictures of your pumpkins and create a collage.
- Roast the pumpkin seeds for a yummy snack. See the full Pumpkin Educational Activity Kit for a recipe, <https://ingeniumcanada.org/education/educational-activity-kits/pumpkins>.
- Use your hollowed out pumpkins to carve jack-o’-lanterns.
- Find other objects that can be tested for buoyancy.