

Name: \_\_\_\_\_

Date: \_\_\_\_\_

# BALANCED FORCES?

Look carefully at the two pictures shown. What is different about them?

Think about all the differences that will affect the forces on the canoe.

Circle all these differences in the pictures.

Fill in the information at the bottom of this page.



List all of the differences between the two pictures that have to do with forces.

*The height of the canoe in the water.*

*The extra things in the canoe.*

*The actions of the people (rowing vs not, focused vs not).*

Explain, using science, how the differences above relate to forces.

*The canoe has moved lower because there is more in it. This means that there is more gravity pushing down on the canoe. Although it is lower, that means there will be more buoyancy, so the forces will still be balanced (if they add more, the gravity might be too strong for the buoyancy).*

*In the top picture the people are rowing, which applies a force on the water, which will push the canoe forwards. In the second picture they are not rowing, so the boat would be staying still.*