What is scale?

In math, scale is the relationship between the size of an object and the size of a larger or smaller model of the object.

For example, many toy cars are realistic scale models of the real thing. If you know the dimensions of the real car, you can calculate the scale of your model. Since the real car is larger, the scale is a reduced size. For example, if the real car is 10 feet long, and the model is 1 foot long, then the model is 1/10 the size of the real car. In other words, the real car is 10 times larger than the model.

In this activity, you'll meet live fiddler crabs and periwinkle snails that live in the marsh at the Virginia Aquarium and scale models of these animals. We'll show you how to determine the scale of the models compared to the real animals.

Once you understand how to do this, you can do a scale study of realistic animal models you might have at home. You can measure your model and then look up the maximum size of the real animal to calculate the scale of the model.

Fiddler Crab

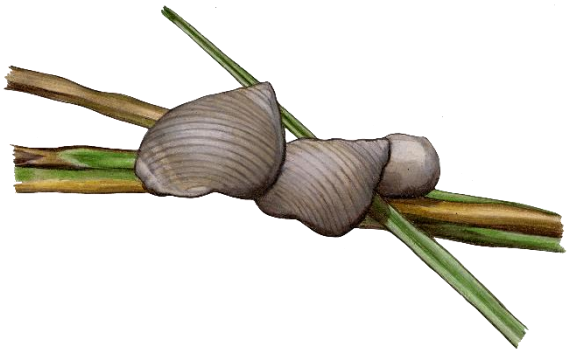
Length of model claw: _____

Length of real claw: _____

How much larger is the model?

Model length ÷ real length = scale

Periwinkle Snail



Length of model shell: _____

Length of real shell: _____

How much larger is the model?

Model length ÷ real length = scale