

Hermit Crab Races

Concepts:

Number sense, concepts, operations, and measurement

Sunshine State Standards:

MA.A.3.2.3

MA.B.4.2.2

MA.B.3.2.1

Materials:

- Spreadsheet program
- Hermit Crabs
- Meters Sticks

Student Arrangement:

Students work in small groups

Procedure:

1. Arrange students in small groups.
2. Have students measure the length of the hermit crabs (from one end of its shell to the other).
3. Show students how to measure how far the hermit crab runs in 5 seconds.
4. Students should enter their data into a spreadsheet. Have students calculate the speed of the hermit crabs by entering the formula, distance equals the rate times the time ($d = r \times t$), into the last column on the table.
5. Have students measure the length of their bodies with a meter stick.
6. Using the ratio in the template, have students enter their measurements and predict how fast they can go.
7. Go outside or in a gymnasium. Have half of the class run for 5 seconds. The other half of the class will measure how far the students run with meter sticks.
8. Have students enter their data in their tables in the template. In the last column, have students enter the formula to calculate speed.
9. Have a discussion with the class comparing their speeds to their prediction and to the hermit crab's speeds.

Extension:

- Have students make bar graphs for the data they collect. They can make it with paper and pencil or with a spreadsheet program.
- Have students write paragraphs and/or an essay about their results and the process of the experiment.
- Any animal, bug, rodent, etc. can be used for this experiment- it does not have to be hermit crabs.