



**Grades K-5**  
**Common Core Math**  
K.MD.A.1, K.MD.A.2, 1.MDC.4, .2.MD.D.10,  
.3.MD.B.3, 4.MD.B.4, .5.MD.B.2

[www.MaineAgintheClassroom.org](http://www.MaineAgintheClassroom.org)



# Water Quality Monitoring

Developed by the Island Institute, Rockland, Maine  
Revised and formatted by Maine Agriculture in the Classroom

## Activity Description:

Water tests are identified and conducted over time to note changes that may occur. Trends may be identified and results graphed.

## Learning Objectives:

Students will

- Name seven components of water quality
- Explain the seven components of water quality
- Explain how to test for each component

## Materials:

- Water test kit.\*
- Water to test (clean container to hold it in)
- Datasheet.

## Teacher Preparation:

Be familiar with the components of water quality.

## Procedure:

Go through each water quality test, explain its purpose and procedure, and demonstrate how to perform the test and read the results. Record the results on a data sheet. If you choose to monitor water quality on an ongoing basis, you can have participants perform the tests and record data in small groups. You may assign one group to one water test for the duration of the monitoring program so they become “experts” at that test and can track changes over time, or you may have groups perform different tests on a rotating basis so everyone has a chance to perform every test. If you monitor water quality over an extended period of time, it would be interesting to graph the data and look for trends.



The tests you have will depend on the water quality test kit you order, but some commonly tested components of water quality are:

- Temperature
- Salinity
- Dissolved oxygen
- pH
- Turbidity
- Nitrogen (saltwater)
- Phosphorous (freshwater)

Discuss how components of water quality impact the ability of different species to survive in an environment.



The Island Institute used the LaMotte EarthForce Low Cost Estuary & Marine Monitoring Kit available at: <http://www.lamotte.com/en/education/water-monitoring/5911.html>

The LaMotte site will give a list of distributors from which you may order this product. Many schools order from:

**Carolina Biological Supply Co.**

Burlington, NC 27215-3398

Tel: 800-334-5551

Fax: 800-222-7112

Website: [www.carolina.com](http://www.carolina.com)

You will be looking for the **LaMotte Earth Force® Low-Cost Estuary Kit**, item # 652569, cost \$53.50

