



AP® The Water Quality Assessment Package

Grades 7 and up

Order Code 5845-PKG+ | R1 [16]

Combining the Water Quality Educator, [see page 12] and the AP® Environmental Science Water Quality Assessment Curriculum Module [above], the AP® Environmental Science WATER QUALITY ASSESSMENT PACKAGE bundles the curriculum above with the test kits to provide a complete package at a reduced price!

Save \$\$!
Bundled Price

Code 5845-PKG



HEY! There's An App For That!

Includes a Free LaMotte BioPaddles® Colony ID™ Lite App which lets users compare their "unknown" microbe growth on the BioPaddle to a library of photos of "known" microbe colonies. See page 22.



AP® Environmental Water Quality Assessment Curriculum Module

Grades 7 and up

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Use with the Water Quality Educator!

The AP® Environmental Science WATER QUALITY ASSESSMENT MODULE uses the collection and manipulation of data necessary to calculate the WQI as a tool to teach students key STEM-based skills. Instead of directly giving them a math, science, technology, or engineering lesson, it provides data from real life situations that is used in the first four guided activities to develop and learn to solve problems, think analytically and work independently. In the fifth field activity, students apply the skills that they have learned and, with their understanding of water quality and the WQI, collect data to evaluate a local waterway to satisfy Section VI [Water Pollution] of the AP® Environmental Topics Outline.

In four classroom activities, students use actual data from the Kansas River watershed to:

- ▶ analyze and interpret data
- ▶ create spreadsheets
- ▶ calculate the water quality index
- ▶ generate graphs
- ▶ perform statistical analysis
- ▶ communicate accurately
- ▶ access real-time hydrological data
- ▶ observe environmental systems

In a culminating field activity, students access internet sites to identify their local watershed, choose a sampling site on a local waterway, and utilize appropriate techniques to identify their watershed. The Water Quality Assessment Package provides support materials and monitoring equipment to perform chemical and biological analyses to determine the water quality index.



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The following environmental concepts are covered: watersheds, Water Quality Index, physical, chemical and biological water quality parameters, nutrient loading, hydrological variables, watershed ecology, remediation measures, and point-non-point pollution sources. Includes:

- ▶ Nutrient - TTC/MacConkey BioPaddles [Code 5553] for coliform testing
- ▶ Salt/TDS/Temp Tracer [Code 1749] for temperature and TDS determination
- ▶ Teacher Resource CD [included with the Water Quality Index Module] contains:
 - » Teacher/Student guide
 - » water quality test procedures
 - » STEM-based extension activities
 - » PowerPoint presentations and Quick Time iPad/iPod videos
 - » data spreadsheets
 - » glossary
 - » graphics files
 - » chemical reactions