# About the AP® Physics 1 Summer Institute

This session is designed for both new and experienced teachers.

The tentative time line is as follows:

## Day 1

| AM | Introductions & Expectations  
  | AP Courses Equity & Access, Student Selection  
  | Overview AP Physics 1, Curriculum Framework  
  | FR Exam Format |
| PM | Labs & Activities – Kinematics  
  | Course Audit and Syllabus Development  
  | Writing & Explaining Paragraph Length Responses |

## Day 2

| AM | Free Body Diagrams & System Schema  
  | Multiple Representations Kinematics  
  | MC Exam Analysis |
| PM | Goal-Less Problems & TIPERS  
  | Labs & Activities – Dynamics & Circular Motion  
  | Lab Practicum – Circular Motion |

## Day 3

| AM | Labs & Activities – Rotation  
  | Instructional Planning and Pacing Guides  
  | Instructional Design & Assessment |
| PM | Analysis of Experimental Uncertainty  
  | FR Exam Analysis  
  | Labs & Activities – Rotation, Waves & Sound, Electricity, Energy, Collisions  
  | Lab & Demo Ideas |

## Day 4

| AM | Inquiry-Based Instruction  
  | Labs & Activities – Inquiry  
  | Scientific Argumentation & Peer Review Strategies  
  | Electrostatics |
| PM | Textbooks & Resources  
  | Best Practices: Participant Sharing  
  | Farewell paperwork & workshop evaluation |

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What to bring:

Items you should bring during the week include:

- A device to access the internet (laptop, tablet, etc)
- a graphing calculator
- a copy of your school’s academic calendar
- A short physics demonstration to share with the group at the end of the week (preferably in electronic format)
- highlighter(s)
- comfortable clothes and shoes for walking in the summer heat
- a light sweatshirt or sweater in case you get chilly in the AC

Instructor:

Terri McMurray taught in the North Carolina public school system 26 years. She was a reader for the College Board AP Physics Exam from 2001-2009 and a table leader from 2004-2008. She became a College Board consultant in 2004 and has conducted many one-day workshops and AP summer institutes since then. She is a National Board Certified Teacher with a Master of Education degree in physics. She served on the editorial board of The Physics Teacher and was the first to serve as Pre-College Member-At-Large for the North Carolina Section of the American Association of Physics Teachers (NCS-AAPT). In 2006, Terri received the Walter C. Connolly Award for Excellence in Pre-College Teaching presented by the NCS-AAPT.

Terri has received all of the training offered by the College Board for the new AP Physics 1 and AP Physics 2 courses including Building Students’ Reasoning Skills. She has used an inquiry approach to teaching throughout her career. Terri can be reached at tmphysics@earthlink.net.