

## PhysicsQuest 2005 Materials List

Below is a list of materials needed to complete the PhysicsQuest activities. Materials marked with asterisk (\*) can be downloaded from this website.

### Activity 1: Soapy Films

- Solid insulated electric wire (1 meter per group)
- Containers with soapy water
- Scissors
- Paper towels
- Markers
- Treasure Map\*
- Bubble Pattern Guide\*
- Angle Guide\*
- Student Worksheet (included in Teacher's Guide)\*
- Challenge Report (included in Teacher's Guide)\*

### Activity 2: Seeing Spots

- Laser pointer (a \$5 keychain or pen laser works great)
- Diffraction grating (500 lines/mm, works best if mounted in cardboard frame)
- Modeling clay (small amount, used to hold grating and laser in place)
- Several pieces of plain white paper
- Protractor
- Meter stick
- Masking Tape
- Chalkboard erasers or talcum powder (optional)
- Student Worksheet (included in Teacher's Guide)\*
- Challenge Report (included in Teacher's Guide)\*

### Activity 3: As the Washer Swings

- 2 metal washers (used as weights)
- String (1.5 meters per group)
- Graph paper
- Metric ruler
- Stopwatch
- Scissors
- Calculator
- Student Worksheet (included in Teacher's Guide)\*
- Challenge Report (included in Teacher's Guide)\*

### Activity 4: Furry Magnets

- 2 bar magnets
- Iron filings
- Plain white paper
- Magnetic Field Line Guide\*
- Student Worksheet (included in Teacher's Guide)\*

- Challenge Report (included in Teacher's Guide)\*