Circular Physics investigations with Web, Interactive Physics:
This page found at: http://www.richtherrn.net/physics/circularphysics.htm
or (from school) X:\\Physics\physics\circularphysics.htm

INVESTIGATIONS INTO CIRCULAR MOTION!

0) Finish anything interesting from last time Especially ripple tank and circular motion
Wave observations: waveobserve.htm simulations found wavesims.htm
 to investigate the phenomena of waves waveinteractions.htm

Remind yourself of the relationship between circles and waves with
wavesims/shm/shm.html

Vary length and mass to see the effects on circular motion with
circularMotion/circular3D_e.html
1)WEB QUEST:
        Take notes (IN WORD OR ON YOUR OWN PAPER!)
on each site to make sure you understand the concepts of:

Circular motion = wave= periodic motion 1WL=λ=2πr

Angular vs. linear velocity

Angular vs. linear acceleration

Centripetal acceleration = v^2/r and centripetal force (towards the center)

2)INTERACTIVE PHYSICS: (only at school).. use to demonstrate each (see page in
X:\Physics\physics\CircMotionFiles\index.htm or
http://www.richtherrn.net/physics/CircMotionFiles/index.htm

3) Begin reading Chap 10 (Circular Motion) for notes Fri/Monday. Tue prepare for LakeC!

Use these web sites
°Circular motion tutorials at:
        http://www.physicsclassroom.com/Class/circles/circtoc.html

        All of Lesson One http://www.physicsclassroom.com/Class/circles/U6L1a.html
        All of Lesson Two http://www.physicsclassroom.com/Class/circles/U6L2a.html
        And even Roller Coaster Physics at:
        http://www.physicsclassroom.com/Class/circles/U6L2b.html

        Make sure to answer the quiz questions and also see the animations at:
        http://www.physicsclassroom.com/mmedia/circmot/circmotTOC.html
         including : http://www.physicsclassroom.com/mmedia/circmot/ucm.html
        http://www.physicsclassroom.com/mmedia/circmot/cf.html
        and http://www.physicsclassroom.com/mmedia/circmot/rcd.html
        (Don't worry about lessons on orbits)

°Try and observe Experiment (Java Sim) of a carousel
http://www.physicslessons.com/phe/carousel.htm

ANSWER QUESTIONS FOR:
        Why are the net forces at A & B on the Ferris Wheel equal?
        http://webphysics.davidson.edu/physletprob/ch4_tour/4.1.tour_1.html

        Which correctly shows how the ball breaks from the string? (A-E)
        http://webphysics.davidson.edu/physletprob/ch7_in_class/in_class7_1/mechanics7_1_2.html

        Circular motion on a string applet
        http://webphysics.ph.msstate.edu/javamirror/ntnujava/circularMotion/circular3D_e.html
        Explain why animation 1 is the correct answer for a car that accelerates in a circle, up to a constant speed halfway through.
        http://webphysics.davidson.edu/physletprob/ch8_problems/ch8_6_rotations/rotations_4.html

        How do you get the centripetal acceleration for the rotating puck at
        http://webphysics.davidson.edu/physletprob/ch8_problems/ch8_6_rotations/rotations_5.html

°Explain what is happening at RotationWater.mov
        And
        CentrifugalForceonGlassH2O.mov

°Amusement Park Physics
        http://www.learner.org/exhibits/parkphysics/

Go through all the rides, especially:
Roller Coaster,
Design a coaster
        http://www.learner.org/exhibits/parkphysics/coaster/

Make sure you do the bumper cars
http://www.learner.org/exhibits/parkphysics/bumpercars/