Name:	Date:	Period:	Page:
Inert	ia and Centripet	al Force	
OBJECTIVE:			
RESEARCH:			
Force:			
Inertia:			
If it's at rest,			
If it's in motion	ana ta ana any kaominina dia kaominina mandri dia mampikana aminina mandri dalam dalam dalam dalam dalam dalam	at the same speed	l and direction.
Newton's First Law of Motion:			
(Know as Law of	)		
Centripetal Force:			
Inertia keeps the object moving the object	in a straight line,	and some other for	ce acts to pull
ACTIVTIES:			
One – Demo of Centripetal Force	with Bucket of W	ater	
Describe what is happening:			

Two - Crash

- 1. Raise one end of the track and place it on 2 books. Place a barrier 3 car lengths from the end of the track (this will stop the car).
- 2. Measure and record the height of the top of the track.
- 3. Make a small clay ball, flatten its bottom and gently sit it on the hood of the toy car. DO<u>NOT</u> press the clay flat against the car.
- 4. Position the car and clay ball at the top of the track. Release the car and allow it to roll down the track and collide into the barrier. Measure how far from the car the clay ball traveled and record it in the data table.
- 5. Use two more books to raise the track further (4 books total). Record the new height and repeat step #4.

Number of Books	Height of Books (cm)	Distance Clay Traveled (cm)
2		
4		

Three – Circular Motion Due to Centripetal Force

1. Let the hanger hang on your index finger and place a penny on the end of the wire (see picture)



- 2. Start to swing the hanger, first slowly back and forth, and then do full loops. This needs a little practice to accomplish keeping the penny on the hanger.
- 3. Make observations about the flight of the penny:
- a. What happens to the flight of the penny when the hanger stops?
- b. What pushes on the penny to keep it moving towards the center of the circle?