

LESSON PLAN FOR VIDEO SESSION

OBJECTIVE

The objective for this lesson is to provide stimulus and experience such that students will begin thinking and exploring their thoughts on forces, friction in particular and motion as related to forces in general. This is not meant to get all students to the stage where they can articulate Newton's laws by any means at all. I just want to begin their thinking on the line of classical mechanics. There will be a deliberate attempt to tease out some classical misconceptions about forces and motion.

It is not intended to achieve all of this in this one time slot but a follow up lesson will bring out and develop understandings.

PROCEDURE

1. Huddle (students sit close and informally at the front of the class) for discussion of the question " what is the natural state of matter"

2. Demonstration of trolley coming to rest and a mass which is pushed along a bench top coming to rest.

Focus on the natural state of motion for all bodies.

3. Question whether forces are necessary to keep bodies moving and whether forces are needed to stop bodies from moving.

4. Introduce friction as that force which stops bodies from moving.

5. Ask WHAT FACTORS DETERMINE the size of the force of friction.

6. Ask where friction is useful and where it is a nuisance.

7. PRAC TIME.

8. Huddle time again to discuss results and agree on conclusions.
