ICT Lesson Plan

Subject	Physics	**Topics**	Motion in a circle
Level	JC1	**Number in class**	25
Time for lesson	40 min	**Type of ICT equipment used**	Easy Java Simulation (EJS)

Preparation
12 laptops pre-installed with the EJS software. 2 laptops per group of 4 to be shared in pairs.

Resources
Motion in a circle EJS
Worksheet B
Visualiser

LESSON 1

Learning Objectives
1. To learn the free body diagram (FBD) of a ball at different positions of the curved track.
2. To determine the minimum height of release (in terms of the radius of the loop) of the ball such that it just loses contact with the track.

Assessment (if any)	**Aspects of SDL/CoL**
Introduction (time) 5 min Recap earlier lesson using Active learning cum Worksheet A to draw the FBD of the ball at different positions of the loop and hump.	
Main activity (time) 15 min 1. Students will read page 1 of worksheet. 2. Students will do Activities 1, 2 and 3 of worksheet to familiarise themselves with the EJS on the laptop. 3. Students will do Activity 4 of worksheet to investigate the forces, velocities of the ball and its path when ball is released at different heights. 4. Students will do Activity 5 of worksheet to find out the minimum height of release (in terms of the radius of the loop) of the ball such that it just loses contact with the track.	SDL CoL CoL CoL
Plenary (time) 20 min 1. Ask some students to present their findings on Activity 4 on the visualiser. 2. Ask groups to check the magnitudes of the forces in each FBD for consistency. Ask why if inconsistent. 3. Ask groups to compare the corresponding forces in the two different H for consistency. Ask why if inconsistent. 4. Ask groups for the answer to Activity 5.	SDL CoL CoL CoL
Homework Ask students to prove theoretically the answer to Activity 5.	SDL