

6/11/2010



HKDSE SBA CONFERENCE



Useful Links

- Physics Teachers Professional Development and Resources Sharing Platform

<http://edblog.hkedcity.net/cdiphysics/>

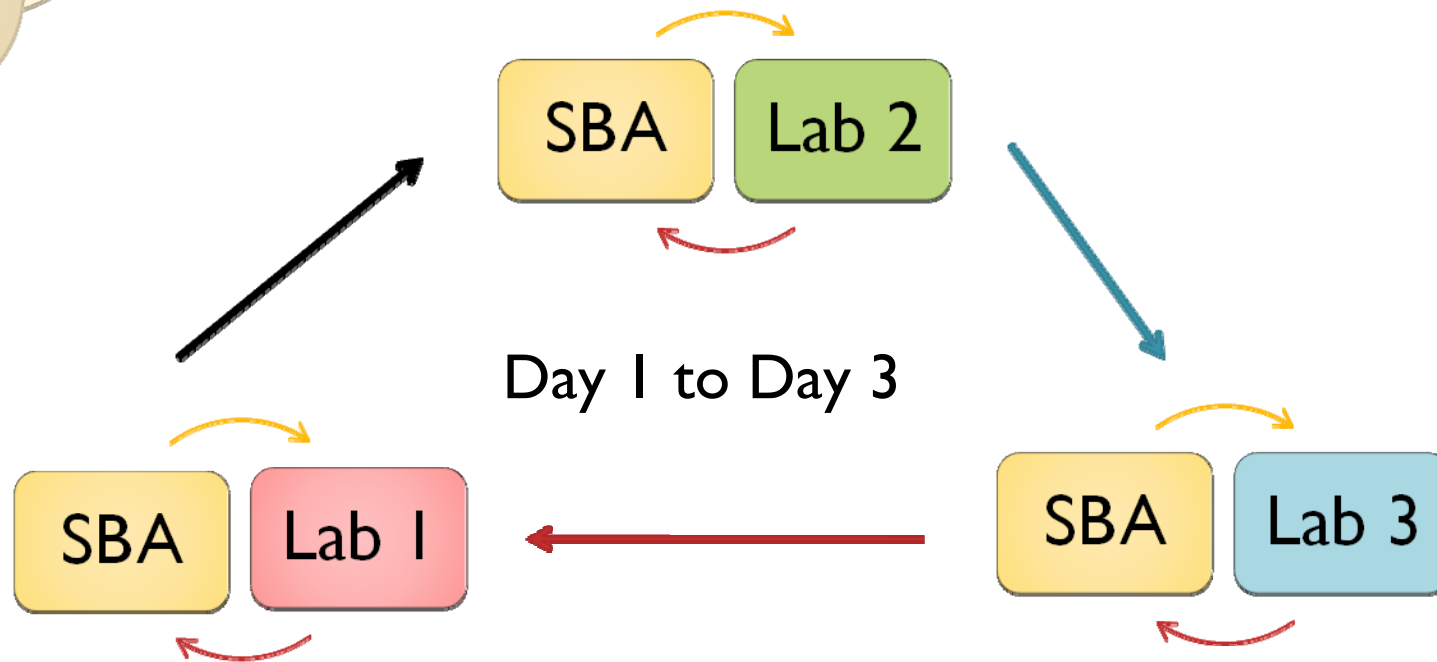
- Science Education - Physics

<http://www.edb.gov.hk/index.aspx?nodeID=3379&langno=2>

Type I – Implementation

Group	Day 1	Day 2	Day 3	
1	✓	Lab 2	Lab 3	
2	SBA			
3	✓			
4	Lab 1	✓	Lab 3	
5		SBA		
6		✓		
7		Lab 2	✓	
8			✓	
9			SBA	
10			✓	

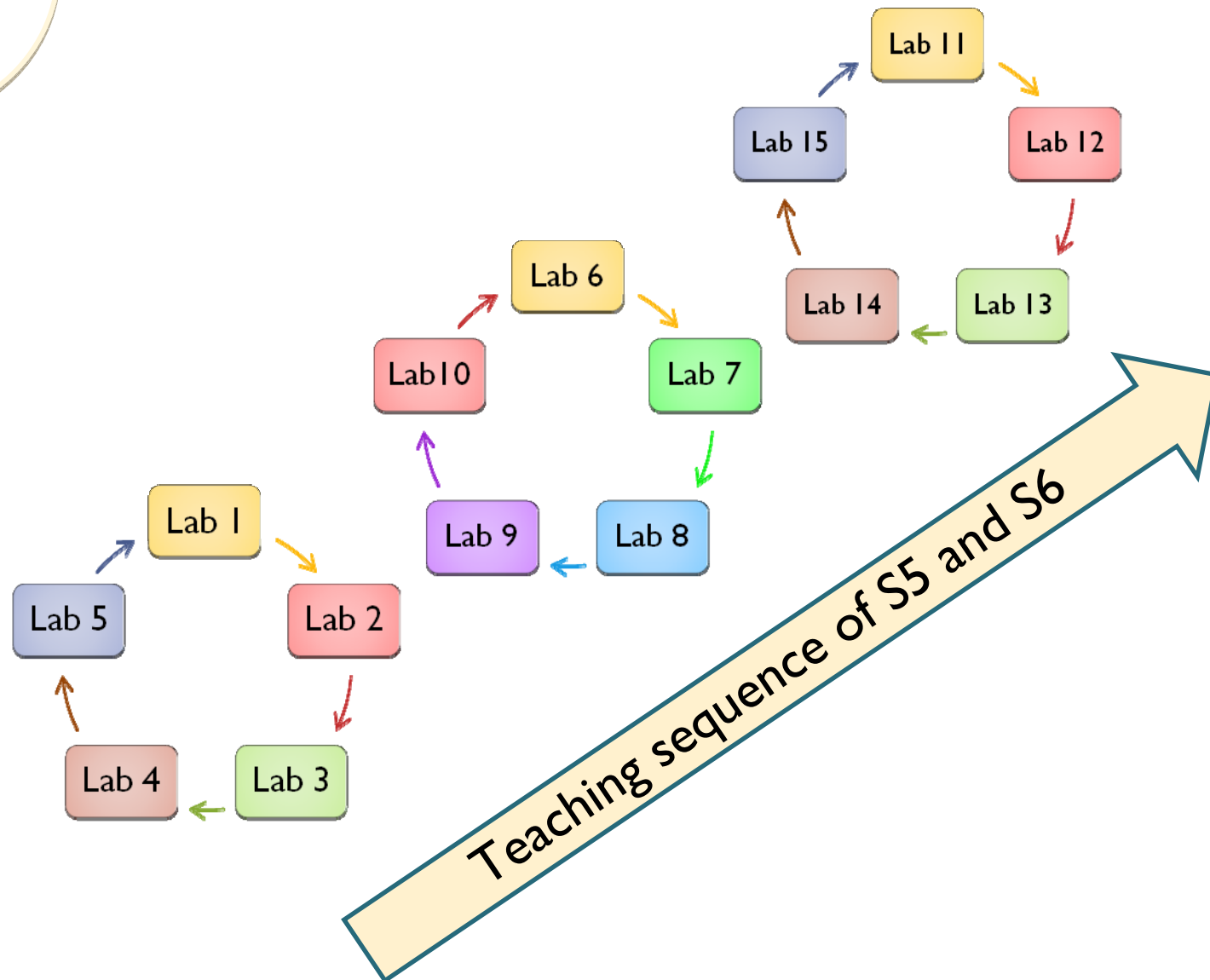
SBA Circles



Type II – Implementation

Group	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5
1	✓				
2	✓				
3		✓			
4		✓			
5			✓		
6			✓		
7				✓	
8				✓	
9					✓
10					✓

SBA Circles



Selection of Practical

Topic	Number of experiments
• Basic Techniques & Process Skills	
1. Heat & Gases	
2. Force and Motion	
3. Wave Motion	
4. Electricity and Magnetism	
5. Radioactivity and Nuclear Energy	
6. Elective Part	
Total	15

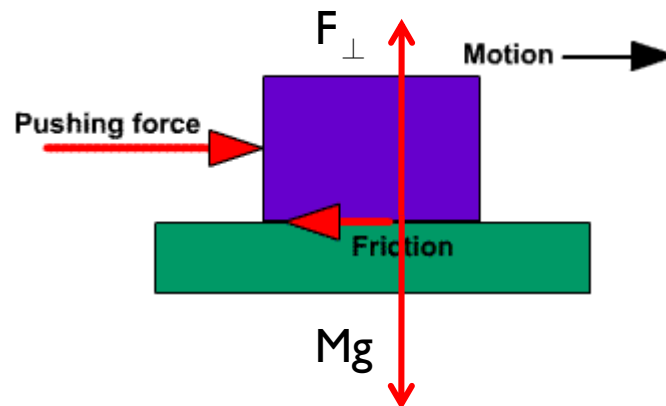
Sliding Friction

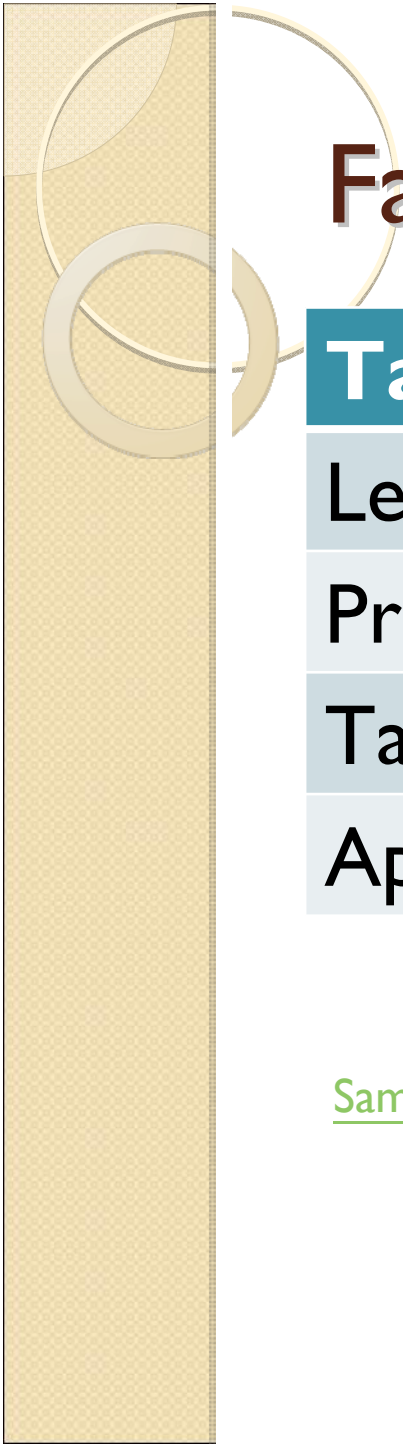
Design an experiment to answer the question:
What factors affect (sliding) friction ?

- Develop each component of the investigation including a hypothesis, procedures, data analysis, and conclusions

Theory

- The force of sliding friction F_f is proportional to the force perpendicular to the surface $F_{\perp}$ (i.e. $F_f = \mu F_{\perp}$)

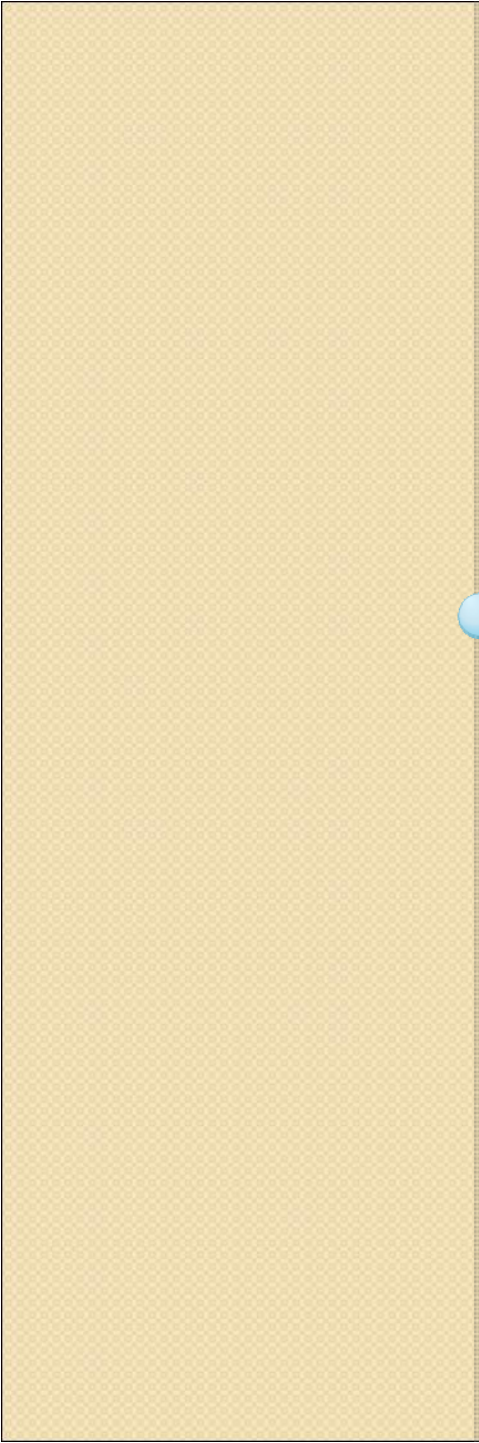




Factors affecting frictional force

Task Sheet	Descriptions
Learning Objective	
Project Aims	
Task	
Apparatus	

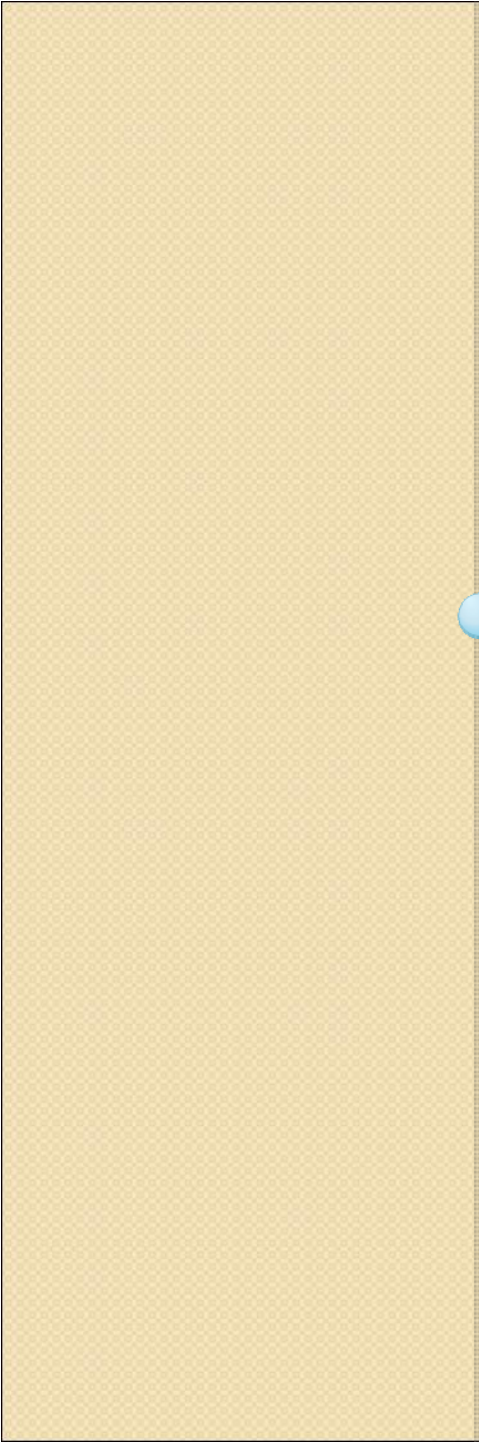
[Sample](#)



Video



MEASUREMENT OF FRICTION



SAMPLE REPORT



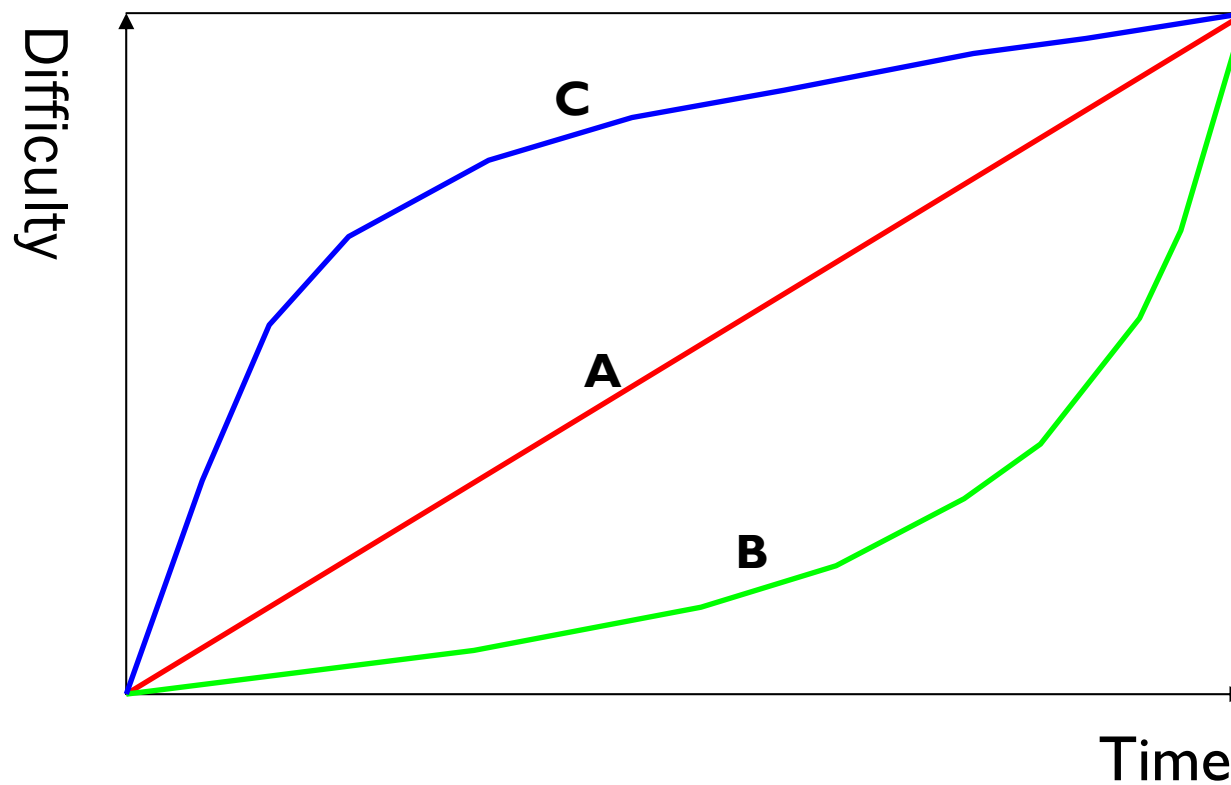
STUDENT'S REPORT

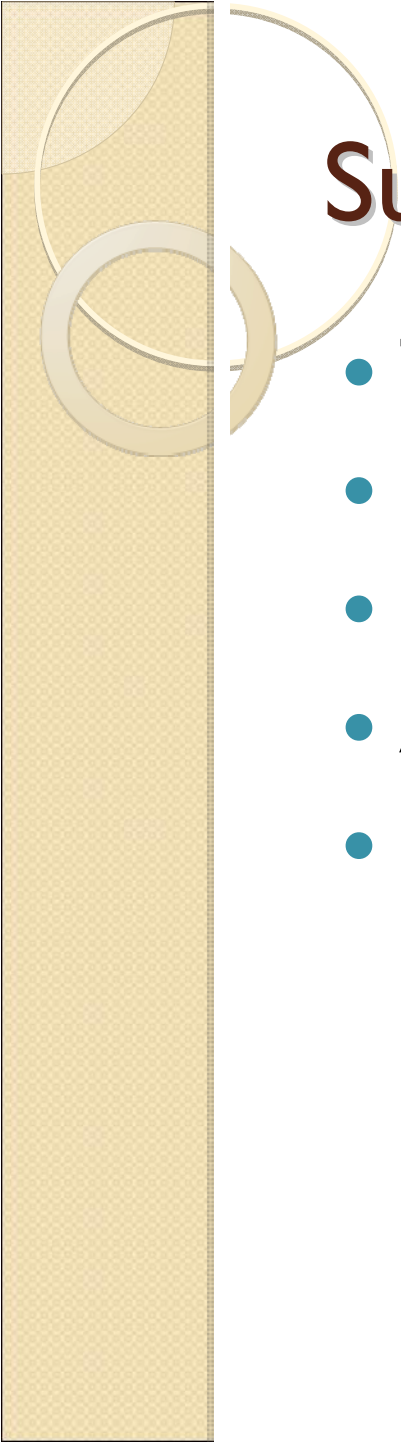
Level of Difficulty

Level	Cookbook	Structured	Guided	Open
Question	✓	✓	✓	
Method	✓	✓		
Solution (Conclusion)	✓			
Student Independence	Lowest	←————→		Highest

Michael E. Fay and Stacey Lowery Bretz, 2008, Structuring the Level of Inquiry in Our Classroom, *The Science Teacher*, Vol.75(5), p.38-42

Learner Diversity





Summary

- Time Schedule
- Selection of Practical
- Learning Objectives
- Availability of Equipment
- DesignTask Sheet



THANK YOU.