

Topic/Unit: Variables / 1 of 10

Essential Ideas/Key Concepts/Focus Questions:

- A pendulum is a mass suspended on a pivot point, free to swing.
- The length of the pendulum determines the number of cycles in a given length of time.
- A variable is anything that you can change that will affect the outcome of an investigation.
- In a controlled experiment only one variable can be changed at a time to determine if it has an affect on the outcome of an investigation.

Goal 1

Key to Multiple Intelligences:	V Verbal-linguistic	M Musical
	L Logical-mathematical	I Interpersonal
	S Spatial	A Intrapersonal
	B Bodily-kinesthetic	N Naturalist

Pre-Learning Activities: (Activities to hook and focus the learner)

- S Hand-out Variables Journal/explain unit briefly
- V&L Introduce Concept Wall "Variables"
- N show the phenomenon

During-Learning Activities: (Activities to help the learner select, organize, and make sense of the information)

- I&B Construct Swingers in groups
- V&L Identify standard release position after
- B&S <sup>Mock Start</sup> Conduct the Swinger test
- L Students brainstorm ways to change system for more swings  
 • Write on notebook paper  
 • mass  
 • Release position  
 • length

Post-Learning Activities: (Activities to help the learner reflect and use the information in new ways)

- V&L Word Bank
- V&L Content/Inquiry chart
- V&L Concept Wall
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