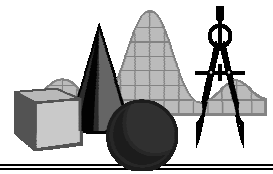


Unit 1 Plan: **Math Toolkit**
 Physics1 Honors@ PalmHarborUniversityHigh



Day	Date	Topic	Assignments (due NEXT day)
1		Introduction Class/Course Policy	Letter Home due tomorrow
2		What is Science? Issue Books	Review Math Handbook (Appendix A) Read Section 1.1
3/4		Scientific Method Notes (<i>see web page</i>) Metric System / Scientific Notation	Read Section 1.2 HW #1: Sci Notation worksheet
5		Measurement / Significant Digits Mini-lab	HW# 2: Mastering concepts 31 – 41 (p. 24):
6		Algebra Review, Dimensional Analysis	HW# 3: 67 – 72 (p. 26) Read Section 1.3
7		Graphing Section 1.3 notes	HW# 4: Practice Problem (p. 18): # 24
8		Review for test; Review Crossword	
9		Unit 1 test	

Note: Homework is due on the day following the assignment, unless otherwise noted.

Objectives / Essential Learnings: (key terms in **bold**)

1. Be able to state what **physics** is. Explain why **physics** is the most basic of the sciences.
2. Outline the steps of the **scientific method**.
3. Recognize the role of **observation** and **experiment** in scientific investigations (what makes “science” science).
4. Distinguish between **hypothesis**, **theory** and **law**.
5. State the **fundamental units** for length, time and mass. Define **derived units**.
6. Identify and use common **metric prefixes**.
7. Be able to do conversion between units.
8. Demonstrate the ability to use **scientific notation** (SN).
9. Add, subtract, multiply and divide using SN.
10. Recognize that all **measurements** have uncertainties.
11. Distinguish between **accuracy** and **precision**.
12. Show you can use **significant digits** and understand their relationship to **precision**.
13. Distinguish between **dependent** (DV) and **independent** (IV) **variables**.
14. Be able to graph data points.
15. Understand how smooth curves drawn thru data points represent the relationship between IV and DV.
16. Recognize **linear**, **inverse** and **quadratic** relationships.
17. Be able to find and interpret the **slope** of the curve.
18. Demonstrate the ability to manipulate algebraic equations.
19. Use **dimensional analysis** to test the validity of an equation.