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## A Semester of Physics Laboratories by a variety of physicists

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## **ADAPT Laboratory Sequence**

Seq. No.	Title	Physics and Reasoning Concepts
1	International Trade	Metric System, Units Conversions
2	The Planet Puzzle	Density, Ratio Reasoning
3	What Were They Doing? Finding Patterns in Numbers	Classification, Cartesian Graphs, Linear Functions
4	Finding Relationships	Linear Functions, Graphical Analysis
5	Working with Triangles	Ratio Reasoning, Trig. function definitions
6	Induction	Linear Functions, Graphical Analysis
7	Predictability, Measurements & Uncertainties	Error Analysis, Histograms, Linear functions
8	Finding More of Nature's Rules A Variety of Physical Systems	Power Law Functions, Periodic function
9	Four Different Systems	Log-Log Graphs, y = Ax <sup>m</sup> functions
10	Investigations in Optics	Log-Log Graphs, Inverse Square Law, Geometrical Optics
11	Radiation	Semi-Log Graphs, Exponential Functions
12	Reasoning Laboratory: The Puzzle Video	Karplus film, Development of Reasoning, Equal Arm Balance
13	The Intensity of a Light Bulb, The Effects of Blue Filters, The Hitching Post, Rebounding Cart	Exponential Functions, Semi-Log Graphs
14	Newton's Law of Cooling	Exponential Functions, Semi-Log Graphs