

Alliance For Physics Excellence (APEX) Spring Weekend Workshop – Cohort 3 Physics Teacher Institute (PTI) Fluid Activities Schedule Alabama A & M University & The University of Alabama in Huntsville



March 11 – 12, 2016

Day 1 – Friday, March 11, 2016

8:00 – 8:15 AM		Welcome/Greetings/Coffee Announcements	Mohan Aggarwal AA&MU and APEX Leadership Team
8:15 – 9:15 AM		Fluids Activity #1: Volume Units for Regular Solids and Liquids – Page 11	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1 hour)
9:15 – 10:30 AM		Fluids Activity #3: Mass and Volume of Aluminum – Page 33	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1 1/4 hours)
10:30 – 11:00 AM		Fluids Activity #6: Why do cans Float or Sink? – Page 51	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1/2 hours)
11:00 - 11:30 AM		Fluids Activity #6B Elicitation 1: Weighing an Object in Air – Page 53 A4: A Leaky Bottle and the Push by Water at Various Depths – Page 57	(1/2 hour)
11:30 – 12:45 PM	Buffet lunch at the Bevel Center at UAH (75 minutes)		
12:45 – 2:15 PM		Making successful change, monitoring teaching strategies, and the APEX Professional Learning Community	Dennis Sunal, Tara Ray, & Justina Ogodo University of Alabama (1 1/2 hours)
2:15 – 3:45 PM		Fluids Activity #7: Buoyancy Simulation – Page 69	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1 1/2 hours)
3:45 – 4:45 PM		Fluids Activity #8: Buoyancy Can-Can – Page 77	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1 hour)
4:45 – 6:30 PM	000	Fluids Activity #9: Bags and Buoyancy (Collect Data) – Page 81 Mention AP Problems from 2011, 2012, 2013 & 2014 – Page 141 to 152 Do 2013 Problem #1 for homework. – Page 147	Tommi Holsenbeck & Bill Ossenfort AAPT/PTRA (1 3/4 hours)
6:30 PM	Dinner (On Your Own)		

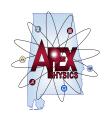
 $\underline{\mathbf{Day 1 (Total = 9 hours)}}$

• Action Research, et cetera = 1 1/2 hours

• Pedagogy = 1/2 hour

AAPT/PTRA = 7 hours

• Technology = 0 hour



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Day 2 – Saturday, April 11, 2016

8:00 - 9:00		Fluids Activity #11: Density Song – Page 99	Jane & Jim Nelson
AM	u	Fluids Activity #9: Bags and Buoyancy (Data Analysis) – Page 81	AAPT/PTRA (3/4 hour)
9:00 – 10:30 AM		Fluids Activity #13: What Happens to a Compressible Fluid Under Pressure? – Page 107	Jane & Jim Nelson AAPT/PTRA (1 1/2 hours)
10:30 - Noon		Fluids Activity #14: Boyle's Law As an Introduction to Carnot Cycle – Page 117	Jane & Jim Nelson AAPT/PTRA (1 1/2 hour)
Noon - 1:00	In House Working Lunch:		
PM	The Cartesian Diver (1/2 hour)		
1:00 - 2:00 PM		Fluids Activity #17: Bernoulli's Equation – Page 131	Jane & Jim Nelson
			AAPT/PTRA (1 hour)
2:00 PM		Horizon Survey and Wrap-up	Mohan Aggarwal AA&MU, HRI and APEX
			Leadership (1/4 hour)

- Day 1 (Total = 9 hours)
- Action Research, et cetera. = 1 1/2 hours
- Pedagogy = 1/2 hour
- AAPT/PTRA = 7 hours
- Technology = 0 hour
- Overall Totals = 14 hours
- Action Research, et cetera = 1 1/2 hours
- Pedagogy = 1/2 hours
- AAPT/PTRA = 12 hours
- Technology = 0 hour

- **Day 2 (Total = 5 hours)**
- Action Research, et cetera = 0 hour
- Pedagogy = 0 hour
- AAPT/PTRA = 5 hours
- Technology = 0 hour