

In Quest of the Quark:

A Student's First Introduction to Elementary Particle Physics

Villa Park High School
Chemistry Building
March 8, 2014

Goals:

1. Providing support for **education and literacy** through incorporation of current research
2. Promoting **economic independence** through careers in technology and science
3. Promoting **peace and understanding** through overcoming language barriers

- Introduction of staff and their backgrounds and roles:

Workshop Coordinator Greg Mills
Instructor (English) and author Dr. Bartrom-Olsen
Instructor (Spanish) Jeff Morgan
Spanish language Coordinator Ed Howard
Spanish/English Greeter Mike Brunhofer
Electronic Media Coordinator Teri Brooks
Print Media Coordinator Andie Mills

- Round-robin student introductions and any parents present
 - Provision of materials to learners
- Instruction of the seven topics explicated through chapters in the text:

INTRO history of atomic theory, atomic model and periodic table
Ch1: Composite units of Matter and Energy(Fermions and Bosons)
Ch2:The Fermion family(matter)
Ch3: The Boson family(energy)
Ch4: Symmetry of Forces(how matter and energy are related)
Ch5: Symmetry Breaking(matter/energy in stars)
Ch6: Unification of Forces(how it all fits together)
Ch7: Summary, review and glossary of terms
APPLICATIONS: to industry
FOLLOW-UP: question/answer session
ASSESSMENT: short assessment and survey

- optional post-session for any additional questions
 - media interviews



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