

Active Science Learning

Professional Development and Support for Hands-on Science

Active Science Learning [ASL] is a professional development and support project committed to making hands-on, inquiry-based science available to all students – in particular girls, African Americans, Latinos and kids from communities that are under represented in the science [STEM] work force.

Active Science Learning can assist schools to.....

- Analyze [unpack] the Science Standards (NGSS, Mass 2016),
- Identify rigorous, higher order learning objectives and assessments,
- Develop or select appropriate and engaging curriculum and resources,
- Fully integrate the *science practices* into classroom instruction.



Active science is engaging, collaborative, project-based and **fun**. Iterative and age-appropriate investigations are the most effective way to build interest in science and the scientific mode of thinking. **Active science** encourages a love of scientific investigations for its own sake, and nurtures creativity, collaborative problem solving, critical thinking, as well as the skill of communicating ideas and findings to others.



Active **Science** is extended investigations and problem solving in engineering and science disciplines. It provides first-hand and direct experience of relationships, patterns and phenomena in the physical world.

Active Science **Learning** builds students' understanding of processes and relationships in the physical world as well as their commitment to the *science practices* now incorporated in most science standards for K-12 education. Experiences and insights based on direct interactions with “hands-on materials” are a strong foundation for lasting cognitive learning in the sciences.

ASL is directed by Charlie Hutchison who has promoted active science in elementary, middle school and afterschool classrooms for over 20 years. Charlie co-authored the *Design It!* and *Explore It!* afterschool STEM curriculum series and directed the *National Partnerships for AfterSchool Science [NPASS 2005 – 2014]* funded by the National Science Foundation

Charlie Hutchison holds an Ed. M (1990) from the Harvard Graduate School of Education and a BA, Human Ecology (1982) from College of the Atlantic in Bar Harbor, Maine.