

# 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

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