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## Science is on the California Schools [Dashboard!](#)

Science in K-12 (especially elementary) has long been recognized as undersupported.

Calls for action have been many! The most recent include:

- [A Blueprint for Action for Equitable K-12 Science Education in California](#), 2022, (from California Partnership for Math & Science Education; CRS is a signatory in support)
- [Call to Action for Science Education](#), 2021 National Academies of Science, Engineering and Mathematics
- [State of Science Education](#), 2023 Report, Science & Technology Action Committee (nonpartisan, Industry Committee)

### Essential Conditions to Support Strong K-5 Science Teaching and Learning

It is important for policymakers, parents and educators to understand that for elementary students to demonstrate proficiency in 5th grade on California's science test, students need to be engaged in science learning starting in TK and K!

*Key Recommendations: Essential elements for strengthening science teaching and learning, summarized from the three major reports listed above:*

- **TIME for science at all grades, starting in Kindergarten (or sooner!)**
  - At elementary, other expectations (math, ELA, PE) can make it difficult to “find” sufficient minutes for science instruction. Superintendents, Boards and Principals need to articulate expectations for time on science AND provide the structural & systemic support necessary.
  - Baseline recommendations: 60 minutes per week K-2; 90-120 minutes per week Gr. 3-5
  - Active science learning provides opportunities to INTEGRATE math, ELA, and science practices concurrently, giving students engaging opportunities to put emerging math and ELA skills to use
- **CURRICULUM that is standards aligned and provides a reasonable pace to accomplish within available time**
  - Lessons that include real-world, hands-on experiential learning
  - Systemic support for preparation and management of materials
  - Systemic support in the implementation of curriculum for inclusive, culturally relevant, active investigations (for example, volunteers, aides, teacher coaches/TOSAs)
  - Dedicated funding for experiences that provide applied, real-world science learning (ie, hands-on laboratory materials &/or field trips)
- **TRAINING for teachers**
  - Planning time is essential in order for teachers to effectively integrate grade level math, ELA practices into science through writing and discussion prompts, data collection, and reasoning/argumentation from evidence, etc.
  - Offer stipends for teachers to participate in science-focused professional development
  - General ed and science specialists – appropriate PD and planning for differentiated needs

- **Ongoing support for collaboration and planning**
  - Districts/schools can build on internal capacity by supporting peer coaches, teacher leaders
  - Provide collaboration time for ongoing improvement, documentation and evaluation of progress, and reflection on best practices
  - Community partners can amplify impact, accelerate implementation, provide sustained support

**Statewide, 5th Grade Science:**

Percent of students within each achievement level

