



NSTA Position Statement

Parent Involvement in Science Learning

Introduction

The National Science Teachers Association (NSTA) believes the involvement of parents and other caregivers in their children's learning is crucial to their children's interest in and ability to learn science. Research shows that when parents play an active role, their children achieve greater success as learners, regardless of socioeconomic status, ethnic/racial background, or the parents' own level of education (PTA 1999; Henderson and Mapp 2002; Pate and Andrews 2006). Furthermore, the more intensely parents are involved, the more confident and engaged their children are as learners and the more beneficial the effects on their achievement (Cotton and Wikelund 2001).

Historically, innovations in science and technology have been powerful forces for improving our quality of life and fueling economic development worldwide. To continue to reap the economic and social benefits that accrue from such innovation, as well as to find solutions to challenging problems in the areas of health, energy, and the environment, we must ensure parents and children value science learning and recognize the tremendous opportunities that can arise from being more scientifically and technologically literate and better prepared to participate in the 21st-century workforce.

Parents and other caregivers have a critical role to play in encouraging and supporting their children's science learning at home, in school, and throughout their community. Teachers also play an important role in this effort and can be valuable partners with parents in cultivating science learning confidence and skills in school-age youth. NSTA recognizes the importance of parent involvement in science learning and offers the following recommendations to parents.

Declarations

Children are naturally curious about the world around them. Parents and other caregivers can nurture this curiosity in children of all ages by creating a positive and safe environment at home for exploration and discovery.

- Acknowledge and encourage your children's interests and natural abilities in science, and help them further develop their interests and abilities over time.

- Encourage your children to observe, ask questions, experiment, tinker, and seek their own understandings of natural and human-made phenomena.
- Foster children's creative and critical thinking, problem solving, and resourcefulness through authentic tasks such as cooking, doing household chores, gardening, repairing a bike or other household object, planning a trip, and other everyday activities. Actively engage with your children during mealtime discussions or group games requiring mental or physical skills, or by talking about books they are reading or television programs about science they have

References

- Cotton, K., and K. R. Wikelund. 2001. Parent involvement in education. School Improvement Research Series. Portland, OR: Northwest Regional Educational Laboratory. Available online at <http://www.nwrel.org/scpd/sirs/3/cu6.html>.
- Henderson, A. T., and K. L. Mapp. 2002. *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory. Full report available online at <http://www.sedl.org/connections/resources/evidence.pdf>; conclusion available at <http://www.sedl.org/connections/resources/conclusion-final-points.pdf>.
- Parent Teacher Association (PTA). 1999. Position statement. Parent/family involvement: Effective parent involvement programs to foster student success.
- Pate, P. E., and P.G. Andrews. 2006. Research summary: Parent involvement. Westerville, OH: National Middle School Association (NMSA). Available online at <http://www.nmsa.org/Research/ResearchSummaries/ParentInvolvement/tabid/274/Default.aspx>.

Additional Resources

- Barber, J., N. Parizeau, and L. Bergman. 2002. *Spark your child's success in math and science: Practical advice for parents*. Berkeley, CA: Lawrence Hall of Science, University of California at Berkeley. Also available online at <http://www.lawrencehallofscience.org/gems/GEMSpark.html>.
- Heil, D., G. Amorose, A. Gurnee, and A. Harrison. 1999. *Family science*. Portland, OR: Foundation for Family Science. Information online at www.familyscience.org.