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February 23, 2010

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Statement of Purpose

The fifth grade science curriculum in the state of Ohio covers a lot of information in just one year. This is also the first year in which science is a part of the Ohio Achievement Assessments (OAAs), previously known as the Ohio Achievement Tests. The combination of having the first science OAA and the high amount of material to cover has made it necessary for teachers to be well organized and very familiar with the fifth grade science curriculum. Not only do fifth grade teachers need to cover all of the new material, but they must also review third and fourth grade standards if they want their students to pass the OAAs.

Science plays a very important role in developing educated and well-rounded citizens of the world. The field of science betters the lives of every person on the planet. It is in science where students learn the importance of the environment around them. The students in my fifth grade class learn extensively about alternative energy, conservation, and technological breakthroughs. Well-rounded citizens need to have a strong foundation in science so that they can better understand the world they live in.

According to Daniel Brenner (2009), the United States is experiencing a shortage in the number of professional engineers and technologists. We need to address this need starting at the elementary school level. Science needs to be approached from an inquiry based curriculum. Students need to be engaged both mentally and physically. The more the students take learning into their own hands, the more they will appreciate the subject matter. Not everyone is going to belong to a profession that needs a strong science background. However, in today’s world of global warming and evolution arguments, it is important that all people are well educated in the field of science.

The most successful unit in science that I have experienced is not a unit in the traditional sense. I believe a science fair project is extremely beneficial to the success of fifth graders. However, many teachers are often anxious about letting students carry-out their own inquiry-based science projects (Bencze, 2010). Completing a science fair project encompasses many of the standards that need to be covered. The areas of scientific inquiry, scientific ways of knowing, and science and technology fit perfectly in a science fair project. Students must identify a problem, ask questions, perform research, complete an experiment, analyze results, and draw conclusions. The best thing about a science fair project is that many students have fun while learning many important concepts. Recent research supports the notion that students prefer to be challenged rather than spoon-fed in science class (Abu Sbeih, et al., 2009). The thought processes needed to complete the project also translate easily into the problem solving skills they need in the real world.

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