

Statement of Purpose

This upcoming year, schools across the state of Ohio will be working to learn, understand, and implement the revised Ohio Academic Content Standards set by the Ohio Department of Education. When reviewing the revised standards this year, teachers quickly began to conclude that these standards were far from revised; they were more like brand new. As Ohio pushes us to change from teaching width into teaching depth, teachers are struggling to understand how to take the simplified content standards and provide the depth needed to help students achieve higher levels of academic success.

These revised standards presented by the Ohio Department of Education work to meet four different cognitive learning demands in the science content (NAEP, 2008). The first cognitive demand requires students to solve science-based engineering or technological problems through application of scientific inquiry. The second cognitive demand requires students to use the various levels of scientific inquiry in an effort to demonstrate science knowledge. Interpreting and communicating science concepts is the third cognitive demand. Finally, recalling accurate scientific facts, concepts, and relationships is the final cognitive demand. In teaching the given science content by the Ohio Department of Education, teachers will find that they will be integrating these four cognitive learning demands throughout their entire science curriculum.

For this project, I chose to take one out of the three given science topics in the second grade Ohio Academic Content Standards. The topic I chose for the project was the atmosphere. This topic presents itself as a very broad target area and leaves many teachers puzzled as to how to address this on a second grade level; especially since the atmosphere has never been included in second grade standards in the past. My curriculum design will work to break this topic down into parts that will help teachers present the needed curriculum in smaller, manageable chunks

that will provide the depth needed for academic success. The essential question for this project is, “What is the atmosphere, and how does it affect me?”

From a global perspective, the topic of the atmosphere truly impacts each of our own lives daily. As we progress through life, we realize the importance of the atmosphere and the deep need to understand it in order to best handle its daily affects in our lives. So much we do is dependent on its ever-changing environment impacts that face us daily. It is very important that students begin to understand it so that they then have the ability to understand its impact in all areas of life.

Through this curriculum design, students will be given the opportunity to facilitate their learning through active, engaging projects as well as experiences that will prove to be meaningful and relevant to their own individual lives as well as provide them with the ability to easily adapt within a society. Not only will students learn about the atmosphere and its properties, but they will also learn about its weather-related changes, and the dangerous affects of contamination and pollution in our environment (Ohio Department of Education, 2011). This will help our students grow into responsible and environmentally conscious citizens in the future.

This curriculum design is based on a “backward design” approach, similar to the Wiggins and McTighe Backward Design (Chiarelott, 2011). This design is appropriate for the grade level because it places larger emphasis on the children’s learning and development as opposed to content-specific standards and outcomes. It is very important to present this curriculum in a way which is meaningful, relevant, and developmentally appropriate for these younger-aged children. Some of the content is very academically intense and must be presented in a more child-friendly way. In this approach, I first identified the desired results, then determined the acceptable evidence, and ended by planning the learning experiences and instruction.

The curriculum design is also a standards-based curriculum design (Chiarelott, 2011). In today's educational society, teachers must allow the Ohio Academic Content Standards to drive their curriculum. My project follows the given topics, content standards, and expectations for learning that are outlines by the Ohio Academic Content Standards.

References

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