

## **Elementary teachers report Fun with Science**

### **Issue:**

Elementary school teachers in Boone and Marion counties had been experiencing a decline in the number of students participating in their annual science fair competition. In addition, apathy among students had also been noticed, as a vast number of students didn't realize the need to participate in science fair. In an effort to overcome this apathy and decline in science fair projects schools have invited the Purdue Cooperative Extension Service to conduct an enrichment program focusing on how much fun a science fair project can be.

### **Extension response :**

Extension Educators Tony Carrell and Jeff Jones developed a grade appropriate Fun With Science program that reinforces classroom science education standards and teaches students that science is a part of their every day life. This program also demonstrates how students can use ordinary household items to effectively conduct a science fair experiment.

Specifically, the 30 minute educational program teaches students how to use the scientific method principles to conduct an experiment. The educators demonstrate to students how to identify variables, the need for having a control group when conducting an experiment, methods of data collection, and how to effectively communicate their data collection through graphs, charts, and other means.

In 2008 this program was presented to approximately 1,989 students at Central, Granville Wells, Thorntown, and Harney Elementary Schools in Boone County and Deer Run and Eagle Creek Elementary Schools in Marion County. This program originated in 1998.

Teachers completing the survey instrument for this program reported that participation in science fair in 2008 increased nearly 25% as a result of this enrichment program.

They reported that:

### **Impact:**

- >73.4% of the students were better able to identify variables
- >84.6% realized the need for a control group and using only one variable,
- >75.2% could effectively demonstrate various methods of data collection

>83.1% can more effectively conduct a science fair experiment

>73.8% of them could effectively demonstrate a variety of data collection methods

>67.3% could effectively communicate their data through charts, graphs, written reports, and verbal communication.

One teacher reported "I think that hearing the information in a different way than I might teach it with many different examples helped my students to apply the information I had already introduced in a new and exciting way!" With regards to the most significant impact this program had on their students, one teacher stated "I think it helped them see that there is science going on all around them and that creating a science experiment is not that hard." Another teacher reported "Kids love this time to see how science is used with everyday things. They are motivated to go home and become scientists!!"

Teachers reported that this program helped 89.2% of their students develop their science proficiency skills relating to the scientific method. All of the teachers completing the survey reported that this program supported their classroom instruction and nearly all of them would recommend this program to other elementary teachers.

**Partners:** None

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