

Best Practice Vignettes: Agriculture Education

Agricultural Business classes can create a business plan in a student-centered, authentic, collaborative activity:

Economy & Business Vignette

Mrs. Andy's Agricultural Business class has been studying financial statements and records. To practice these skills Mrs. Andy has the class prepare the financial statements and records for the greenhouse Easter lily and bedding plant crops being grown by the Place Science classes. The students keep track of all orders, bills and payments, along with sales and receipts. The students assist in ordering and receiving supplies, along with assisting with plant sales after school. The students prepare income statements, balance sheets, account receivable and accounts payable statements for the greenhouse crops. The students also reconcile their records with the school account.

Once the students have mastered the creation and management of the financial statements and records, Mrs. Andy has the class complete a financial analysis of the greenhouse sales from the prior year. The students prepare a comparative analysis of the income statement and balance sheet. They calculate the percentage of sales per crop listed on the income statement. The students identify potential problems with cash flow based on a review of the cash flow statement. Calculate the return on sales, inventory turnover, and return on owner's equity. The students use the financial information they have gathered to make a financial recommendation of which crops and how many plants should be grown next year.

The following story illustrates the use of scientific concepts and applications. Students learn science concepts and apply skills in the concepts of biology and animal care and management.

Mr. T's year long Large Animal Science class is studying sheep and how to care for and manage them. Students are working in groups of two. The students will be dissecting the stomach of the sheep to determine the stomach components, contents and functions.

Students remove sections of the stomach lining of each compartment and look at them under a microscope. Each section is then researched using at least two sources to determine the function of the section and how it works in concert with other body systems.

Student teams are required to conduct a science fair project looking into the function or contents of a ruminant stomach. The science fair project is conducted using the University of Minnesota AgriScience Fair rules and procedures. One project might be to look at the effects of wormers used in livestock and how resistance can be developed against wormers.

The students then look at how sheep are evolving through traditional breeding and genetic engineering practices. Each group researches and designs a presentation on how sheep produced in the 1950s are different than sheep produced in 2002. The presentation looks into meat production, wool production, milk production and show animals.

Students take a field trip to the University of Minnesota sheep flock in Morris, Minnesota. There the students witness the different research trials that are being conducted. Researchers share with the students how they conduct their research and how trials are developed. Students are also shown how the research is communicated to the industry and general public.