Bay County Scientist in Residence Project
Lesson Plan

Session 5: Wednesday, March 22 (1-4 PM central)

Topic: Arduino & Coding
Materials Needed: Arduino Genuino IDE software and driver pre-loaded on laptops; robot code for Arduino; pre-assembled robots.

Learning Objectives for Arduino and Coding (from grant application):

1. Students will be able to demonstrate basic coding skills and will know where to find coding resources to answer questions.
2. Students will be able to explain the Hour of Code and Girls Who Code movements and how to get involved.
3. Students will be able to describe the basic functioning of an Arduino microcontroller board.
4. Students can demonstrate how to configure an Arduino to communicate with hardware.
5. Students will be able to define the terms code, Arduino, microcontroller board, robot, voltage, current, motor and sensor.
6. Students will be able to build and operate a basic robot.

Assignments to be completed BEFORE this class:

- Students are encouraged to play with the robot code to make their robot do something different.

Class Outline:

- Students who have edited their code will describe the changes and demonstrate with their robot.
- The Scientist in Residence will assist students with their code and answer questions.
- At the end of class students will complete a post-test to determine how much they have learned during this series of classes.

Post-class Assignments:

- Post something on the Florida Panhandle STEM Programming Facebook page. This can include photos from class, questions, observations or comments. Participants are also encouraged to post on their organization's Facebook page.

This project has been funded under the provisions of the Library Services and Technology Act, from the Institute of Museum and Library Services, administered by the Florida Department of State's Division of Library and Information Services.