# CoreValueChesterfield County Public Schools

# Lesson Plan Guide

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| **Date:** **06/29/11** | **Subject:****Science/Math** | | | | **Teacher:****Stephens** |
| **SOL/CPR:** **Math 4.13 Perimeter, Science 4.1** | | | **Grade:** **4** | | **Estimated time:****1 hour x 2 class periods** |
| **Objectives:** **Use robot equipped with light sensor to measure the length of a linear path and perimeter of a square.** | | | | | |
| **Assessments:****Students will turn in calculation sheets and graphed data.** | | | | | |
| **Materials/Resources:**  **5 robots (equipped with light sensor and preporgrammed to follow a black line)**  **Stopwatch**  **tape to draw path**  **meter stick to measure** | | | | | |
| **Check and Review:****Teacher will meet with all groups to check for understanding of objective and use of materials needed.** | | | | | |
| **Anticipatory Set:****Use preprogrammed robot to demonstrate the ability to follow a black line around a standard shape (square).** | | | | | |
| **Modeling:** **Demonstrate the robot following a straight path (2meters) and timing the robot using the stopwatch. Show students that distance can be calculated by multiplying speed by time. Work through calucalations together with students taking notes.** | | | | | |
| **Research-Based Strategies Used:** | | | | | |
| Similarities and Differences  Summarizing and Note Taking  Reinforcing Effort and Providing Recognition | | Homework and Practice  Nonlinguistic Representations  Cooperative Learning | | Setting Objectives and Providing Feedback  Generating and Testing Hypotheses  Cues, Questions, and Advance Organizers | |
| **Guided Practice/Check for Understanding:****See modeling.** | | | | | |
| **Independent Practice:****After finding distance of straight path, student will use preprogrammed robot to find perimeter of a square. Students will time robots and then use all data to calculate distance traveled (perimeter). Students will then use a meter stick to measure actual distance.** | | | | | |
| **Closure:** **Groups will share distances to compare accuracy of actual perimeter versus robot calculated perimeter.** | | | | | |
| **Reflections:****Students will complete an individual self assessment.** | | | | | |

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