2009 Annual Convening
of Service-Learning Leaders
Maryland State Department of Education

Service-Learning Unit

Vehicle Safety

Primary Subject: Science

Grade Level: 8th

Additional Subject Area Connections:
Math, Language Arts, Art

Unit Title: Vehicle Safety

Type(s) of Service: * Advocacy*

Unit Description:
While students are studying the interactions of force and motion they will research the impact of safety belts and child restraints on human fatalities. The students will then develop and implement a plan to promote the use of vehicle safety devices in their community.

Potential Service-Learning Action Experiences: Advocacy- Create and implement a plan to promote the use of seat belts and child safety seats in motor vehicles.

Local School System: Dorchester County
LSS Coordinator: Patricia Vickers
LSS Contact Information: Dorchester County Board of Education
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Maryland State Curriculum Indicators Met

Content Title:

Standard 5.0 Physics

Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur

Topic
A. Mechanics
Indicator
2. Identify and relate formal ideas (Newton's Laws) about the interaction of force and motion to real world experiences.
Objectives
b. Demonstrate and explain, through a variety of examples, that moving objects will stay in motion at the same speed and in the same direction unless acted on by an unbalanced force.

Alignment with Maryland's Best Practices of Service-Learning:

Vehicle Safety

1. Meet a recognized community need

Effective June 30, 2008, Maryland law requires children to be in a car seat or booster seat until their 8th birthday, unless they weigh more than 65 pounds or are 4'9" or taller. The law further states that the car seat must fit the child by age, height and weight, and the child must be secured in the seat and vehicle according to the instructions of the vehicle and car seat manufacturers. Students will notify the community of laws effecting seat belt use and child car restraints as well as inform them of the importance of vehicle safety.

2. Achieve curricular objectives through service-learning

b. Demonstrate and explain, through a variety of examples, that moving objects will stay in motion at the same speed and in the same direction unless acted on by an unbalanced force.

Students will utilize the laws of physic to explain the need for safety belts and child restraints.

3. Reflect throughout the service-learning experience

Discuss the relationship between the use of safety equipment and injuries sustained in accidents using the following:
Collect data on injuries sustained in accidents involving passengers with and without the use of safety belts and child restraints.
Collect data on the use of safety belts and child restraints in school parking lot during morning drop off.

4. Develop student responsibility (Students have opportunities to make decisions about the service-learning project.)

Students will research and collect data on injuries sustained in accidents involving passengers with and without the use of safety belts and child restraints.
Students will develop an organized plan and create posters for safely collecting data in the school parking lot.
Students will collect data on the use of safety belts and child restraints in school parking lot during morning drop off.
Students will be responsible for developing brochures to pass out to community members dropping off students in school parking lot to encourage the use of safety belts and child restraints.

5. Establish community partnerships

Contact Maryland Kids in Safety Seats, Dorchester County Sheriff's Office and Maryland State Police for assistance with project. Arrange for guest speakers.

6. Plan ahead for service-learning

Students will develop an organized plan and create posters for safely collecting data in the school parking lot.
Students will have the opportunity to obtain information from and discuss the plan with teachers, parents and community agencies

7. Equip students with knowledge and skills needed for service

Technical knowledge and skills in the areas of physics and math will be addressed through the science and math curriculum. Students will also complete independent research**,** collect organize and interpret data, and use their conclusions to plan informational brochures to be distributed to community members. Data will be collected again after brochures are distributed to asses the impact of the information provided to the community.