

Bicycle Education in the Classroom

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Winthrop University and Eat Smart Move More York County

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Why Teach about Bicycling at School

- Fewer children bike or walk to school
- Carpooling for short distances
- Increasing childhood obesity
- Physical inactivity and health
- Lifetime activity
- Can't assume children have the knowledge or skill



How Did We Get Here?

- Small grant funding from ESMMSC \$3,000 to ESMMYC
- ACHIEVE grant to City of Rock Hill: \$40,000
- Increased City of Rock Hill facilities
- Healthy South Carolina Initiative Funding 2013
 - ESMMYC received \$87K for 17 months funding for Implementation
 - Bicycle Curriculum one of the grant deliverables
 - 2nd round of HSCI \$78K, countywide bicycle routes



ACHIEVE
Healthy Communities

ACTION COMMUNITIES FOR HEALTH, INNOVATION & ENVIRONMENTAL CHANGE

Rock Hill Cycling Facilities

Goirdana Velodrome



Novant Health BMX Track



Photos: Rock Hill PRT website

Mayor's Bike Ride 2011

Rock Hill, SC



Building Momentum





Making connections....



Bicycle-Pedestrian Task Force



Rationale behind Bike Curriculum

- Get kids active
- Help promote the healthy choice as the easy choice
- Utilize new local amenities
- Support local initiatives to make cycling more accessible
- Weather is usually cooperative
- Prime age group



Development of Bicycling Curriculum

- Healthy SC Initiative Funding to Eat Smart Move More York County
- Use other national resources
- Develop tailored lessons for middle school or late elementary
- Using SC state standards
 - Dr. Kathy Davis, Winthrop University Physical Education
 - Ms. Pattie Starnes, Ebenezer Elementary, Rock Hill
 - Mr. Tom Bell, City of Rock Hill Parks, Recreation, and Tourism
 - Ms. Danielle Center, HSCI Project Coordinator
 - SC Safe Routes to School
 - Mr. Robert White, York County SafeKids
 - Dr. Janet Wojcik, Winthrop University Exercise Science

Examples of Educational Standards

- **Standard 1** – Demonstrates competence in motor skills and movement patterns needed to perform a variety of physical activities.
 - **Grades 6-8: Benchmark 1.4** – The student will demonstrate the basic skills that one uses in an outdoor pursuit (for example, adjusting the seat height for biking, launching a canoe).
- **Standard 2** – Demonstrates an understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performing of physical activities.
 - **Grades 6-8: Benchmark 2.5** – The student will identify selected physical-activity experiences for social, emotional, and health benefits (for example, jogging to reduce stress, walking with a friend for social interaction).

Examples of Educational Standards

- **Standard 4** – Achieves and maintains a health-enhancing level of physical fitness.
 - **Grades 3-5: Benchmark 4.3** – The student will select and participate in physical activities that develop and appropriately maintain each of the five components of health-related physical fitness.
- **Standard 5** – Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
 - **Grades 6-8: Benchmark 5.2** – The student will work cooperatively with a group to establish and achieve group goals in competitive as well as cooperative settings.

10-Week Lesson Outline (Weeks 1-4)

<p><u>Lesson 1</u></p> <p>Focus: Bicycle Safety Pre-Test Bicycle Helmet Fitting</p> <p>Learning Tasks: Helmet Fit/Helmet Fit Guide Triangle Tag</p> <p>Assessments: Written Pre-Test, Student demonstration of helmet/bike fit</p>	<p><u>Lesson 2</u></p> <p>Focus: Basic Bike Fit ABC Quick Check</p> <p>Learning Tasks: Safety check of bikes Demonstration of check – pairs Start/stop techniques (power pedal)</p> <p>Assessments: ABC Quick Quiz</p>
<p><u>Lesson 3</u></p> <p>Focus: Starting/Stopping & Traffic Rules</p> <p>Learning Tasks: Red Light/Green Light Biking Traffic Rules – Stopping Traffic Mix – Bicycle Control</p> <p>Assessment: Teacher Questions – Traffic Rules</p>	<p><u>Lesson 4</u></p> <p>Focus: Bicycle Handling Skills</p> <p>Learning Tasks: Starting/Stopping Drill Straight Line Drill Scan/Signal/Turn Drill Quick Stop Drill Avoidance Weave Drill</p> <p>Assessment: Teacher Questions</p>

Weeks 5-8

<p><u>Lesson 5</u></p> <p>Focus: Rules of Road/Riding with Traffic</p> <p>Learning Tasks:</p> <ul style="list-style-type: none">Riding with Traffic SimulationOptional Advanced Activity <p>Assessment:</p> <ul style="list-style-type: none">Journal Writing – Parental Permission	<p><u>Lesson 6</u></p> <p>Focus: Navigating the Cycling Environment</p> <p>Learning Tasks:</p> <ul style="list-style-type: none">Signaling PracticeStreet Crossing PracticeDriveway PracticeIntersection Practice <p>Assessment: Discussion of Traffic Rules</p>
<p><u>Lesson 7</u></p> <p>Focus: Navigating/Being Visible</p> <p>Learning Tasks:</p> <ul style="list-style-type: none">Navigating the Best RouteBeing Seen By DriversWhere Drivers Look <p>Assessment: Journal Writing</p>	<p><u>Lesson 8</u></p> <p>Focus: Bike Parking and Locking</p> <p>Learning Tasks:</p> <ul style="list-style-type: none">Principles – Locking/ParkingApplication – Locking/Parking <p>Assessment: Journal Writing</p>

Weeks 9-10

Lesson 9

Focus: Riding on a Multi-use Path

Learning Tasks:

Review of Rules – Multi-Use Path

Application – Path Riding

Assessment:

Three-Minute Paper – Rule Differences

Lesson 10

Focus: Bicycle Rodeo/Post-Test

Learning Tasks:

**Stations – Helmet Fitting, Bicycle Fitting,
Wheel Shop, Following Rules, Ride Right,
Safe Places to Wheel**

Assessment: Post-Test of Unit

Getting Bikes--Possibilities

- All students bring their own
- Students bring own with supplements from another source
- Bikes at the school: donations, fundraising
- Mobile resources
 - Thanks Rock Hill PRT!
- Helmets
 - Thanks SafeKids!



What Does It Take to Implement?

- Buy-In at the School
- Champion(s) at the School
- Ability to access bicycles
- If a travel trailer, who will drive it, store it
- Storage facility at school
- Obtaining helmets and other safety items
- Volunteers
 - League of American Bicyclists training
- Paid recreation staff



Skill Levels

- Wide variation
- Some embarrassment
- If some kids cannot ride, are there extra staff?
 - Successful experience
- Some field trips may require ability to ride



Ebenezer Elementary Rock Hill





Ebenezer Elementary Rock Hill







Field Trip



Other Ways to Use Curriculum

- Field Trips that involve biking
 - York County Museum
 - Riverwalk
- After-school programs
 - Boys and Girls Clubs
- Community Events
 - Bike Rodeos
 - Mayor's Rides
 - Festivals
 - Open Streets
- STEAM: incorporate creative writing



In Appreciation to Ms. Starnes, Mayor Echols, and Dr. Davis

Winthrop Physical Education and Ebenezer Avenue Elementary School Collaborate on a Bicycling Curriculum

In the spring of 2013, Kathy Davis wrote a bicycling curriculum for 6th graders that was piloted at Ebenezer Avenue Elementary School by Pattie Starnes, Ebenezer's physical education teacher. Davis, who is Winthrop University's physical education teacher education (PETE) coordinator, designed the two-week curriculum in anticipation of it being used by the entire Rock Hill School District 3 in the near future. The curriculum not only emphasizes bicycle riding skills, but it also contains a large content focus on bicycling and road safety. Starnes is again piloting the unit with a second class this fall in order for Davis and Starnes to collaborate on a final product to be distributed to the entire school district for use by physical education teachers. With the high rate of bicycle injuries in children under the age of 15 across the nation, piloting this new bicycling curriculum is very timely.

Helmets, safety vests and water bottles for the students at Ebenezer were funded by Janet Wojcik's (Winthrop University's exercise science



Pattie Starnes, Mayor Doug Echols, and Kathy Davis at the Giordana Velodrom

References

- *Bicycle Safety: 3rd Through 6th Grade*. The Colorado Department of Transportation & Colorado Safe Routes to School.
- *Bicycle Safety Program Curriculum* (3rd ed.). The Bicycle Transportation Alliance, Safe Routes for Kids & the Oregon Department of Transportation.
- *Pennsylvania Bicycle Education Lesson Plans: 6th Grade*. (2011, August). Pennsylvania Safe Routes to School & the Pennsylvania Department of Transportation.

THANK YOU!!