

A Practice-based Health and Fitness Toolkit for Improving Educational Outcomes

July 2017



PUBLIC HEALTH DIVISION

This Toolkit was researched and assembled by the Arlington County Public Health Division, at the request of the Arlington Public Schools Superintendent Dr. Patrick Murphy, by:

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Health and Fitness Toolkit for Schools - Introduction

Healthy Students Are Better Learners

1. Healthier students have better grades, test scores, graduation rates, attendance, improved memory and concentration, and fewer disciplinary problems
2. Schools can influence students' eating and physical activity behaviors; this can improve students' learning and health

The Toolkit is created with a focus on activities which:

1. improve students' health and academic performance;
2. are considered "best practices" by at least one major organization;
3. are already in place in at least one APS school;
4. are practical and easy to implement; and
5. can have measureable results.

The draft Toolkit includes information about research-based best practices that improve both students' educational outcomes and physical health

1. To meet criteria for "best practice", Public Health reviewed a wide range of studies from research institutions as well as publications generated by the Centers for Disease Control and Prevention, American Academy of Pediatrics, Institute of Medicine, and Robert Wood Johnson Foundation.
2. Each of the activities included in the guide was selected by at least one of these groups as a best practice and has credible research showing effectiveness in improving students' educational outcomes.

To identify "best practice" activities for possible inclusion in the Toolkit, Public Health talked with APS administration, principals, and staff; reached out to parents and community members; reviewed individual school websites as well as APS websites such as "Green Scene," "Safe Routes to Schools," and others; and reviewed regional and national websites such as "Girls on the Run." In addition, APS administration surveyed Principals in the spring and summer of 2016 for additional examples.

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*Note: "During School" also includes time in extended day

\$:	Minimal expense		Minimal effort/individual action
\$\$:	Low expense		Low effort/small team
\$\$\$:	Moderate expense		Moderate effort/larger team
\$\$\$\$:	High expense		Prolonged/organized effort

Healthy Eating Best Practices in Schools

The school environment can have a powerful influence on students' eating habits. Included in this Toolkit are best practice activities that highlight ways to:

- ✓ Provide easy access to drinking water
 - Allow access to drinking water fountains, and/or send a note to parents encouraging their children to bring reusable water bottles to school, and/or Inform school maintenance staff if water fountains are not functioning properly
- ✓ Provide a quality school meal program and promote access to and participation in school meals
 - Offer breakfast through alternative service methods (such as breakfast carts, breakfast in the classroom, breakfast after first period, and “grab and go”)
 - Provide nutritious and appealing school meals that comply with the *Dietary Guidelines for Americans*
- ✓ Make classroom celebrations healthier
 - Use nonfood items; or If food is served, make sure to emphasize healthy foods and beverages
- ✓ Implement Farm to School programs
 - Connect students with local farmers for experiential learning
 - Connect farms to the cafeteria to supply fresh, locally-grown produce
- ✓ Provide nutritional information about school meals to students and parents
- ✓ Develop vegetable and fruit gardens
- ✓ Only use healthy vending machines

Where to start

CDC has created an easy-to-use method of identifying policies and practices most likely to be effective in improving healthy eating practices through the “Nutrition Services” module of CDC’s School Health Index. There are only eleven questions in the module, which also includes a concise way to determine priorities based on the project’s estimated importance, cost, time, commitment, and feasibility. For Elementary schools, click [HERE](#). For Middle/High Schools, click [HERE](#).

Examples

- Jamestown Elementary School recently completed the School Health Index and made recommendations for several improvements. **Contact:** Kenwyn Schaffner (Jamestown Principal): (703) 228-5275, kenwyn.schaffner@apsva.us
- Oakridge Elementary School completed all 8 modules of the School Health index, along with an environmental assessment, and made recommendations for cost-effective improvements. Contact the Principal for details. **Contact:** Dr. Lynne Wright (Oakridge Principal): (703) 228-5840, lynne.wright@apsva.us



Title *Access to Drinking Water*

Why Clean water is the healthiest and least expensive beverage

Benefits Access to drinking water throughout the day gives students a healthy alternative to sugar-sweetened beverages.¹ Staying hydrated may also improve student cognitive function.²

When During the school day



Example

- Yorktown High School retrofitted water fountains with a new system to refill water bottles. This student-led initiative helps students stay hydrated and reduce environmental waste. Click [HERE](#) for details.
 - **Contact:** Dr. Raymond Pasi (Yorktown Principal): (703) 228-5400; ray.pasi@apsva.us

- Patrick Henry Elementary School uses a Water Bottle Filling Station to encourage students to stay hydrated during the day.
 - **Contact:** Annie Frye (Patrick Henry Principal): (703) 228-5820, andrea.frye@apsva.us

- Long Branch Elementary School’s PTA recently purchased three Water Bottle Filling Stations to assist students and staff in staying hydrated during the day.
 - **Contact:** Felicia Russo (Long Branch Principal): (703) 228-4223, Felicia.russo@apsva.us

Estimated	
Cost	Difficulty
Per APS	Per APS

¹ Sugar-sweetened beverages are liquids that are sweetened with various forms of sugars that add calories. These beverages include, but are not limited to, soda, fruitades and fruit drinks, and sports and energy drinks. Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010.*

² Centers for Disease Control and Prevention. Water Access in Schools web site. <http://www.cdc.gov/healthyyouth/npao/wateraccess.htm>.



Title *Classroom Celebrations*

Why Classroom celebrations are healthier when the event is celebrated using either healthy foods or non-food choices, unlike past practice of sweets only.

Benefits Using non-food ways to celebrate is the healthiest option, but if food is offered, it should be healthy. High-sugar foods during childhood are associated with increased risk for heart attack and stroke in adulthood.³ Children like to eat what they are used to eating, and research shows that taste preference for fruits and vegetables is one of the strongest reported correlates of fruit and vegetable intake among boys and girls.⁴



When During the school day

Examples

- Jamestown Elementary School implemented a policy to limit unhealthy and outside foods in the classroom as follows: birthdays are not celebrated in the classroom, but food may be brought in for other special events (such as Valentine’s Day) so long as a healthy option is also provided.
 - **Contact:** Kenwyn Schaffner (Jamestown Principal): (703) 228-5275, kenwyn.schaffner@apsva.us
- Nottingham Elementary School implemented a policy to ensure that outside foods intended for shared activities were not brought into the classroom. This policy has the dual advantage of both improving healthy eating and reducing inadvertent exposure to proteins which can trigger allergic reactions in sensitive students. Click [HERE](#) for to see the policy.
 - **Contact:** Mary Beth Pelosky (Nottingham Principal): (703) 228-5290; marybeth.pelosky@apsva.us

Additional Information

- The USDA recommends that all foods and beverages offered to students meet or exceed the USDA’s [Smart Snacks in School](#) nutrition standards.

Estimated	
Cost	Difficulty
\$	

³ http://www.heart.org/HEARTORG/HealthyLiving/HealthyEating/Nutrition/Added-Sugars-Add-to-Your-Risk-of-Dying-from-Heart-Disease_UCM_460319_Article.jsp#.V-BDEDU-Kxg

⁴ <http://www.cdc.gov/mmwr/pdf/rr/rr6005.pdf>, ref 94.



Title *Farms and Orchards*

Why Bringing together students and farmers is a great way to enrich the connection students have with fresh food, and help learn more about healthy eating choices

Benefits Farming activities – whether the farm comes to the school, or students go to the farm – helps students better understand the origins of fresh, healthy food. These opportunities provide fresh food options that students may not have tried before. These activities provide interactive, hands-on learning, with benefits to students, schools and local food producers.⁵



When During the school day

Examples

- Tuckahoe Elementary School 2nd graders recently took a trip to the Markham Apple Orchard to learn about nutrition, healthy snacks, and plant life cycles. Click [HERE](#) for details (see 2nd grade on page 2).
 - **Contact:** Mitch Pascal (Tuckahoe Principal): (703) 228-5288, mitch.pascal@apsva.us
- Jamestown Elementary School pioneered the “Farm-to-School” program in which a local farm brought fresh, seasonal produce and other examples of farming (such as chickens and tractors) to the school and shared them with students. Click [HERE](#) for details.
 - **Contact:** Kenwyn Schaffner (Jamestown Principal): (703) 228-5275, kenwyn.schaffner@apsva.us

Additional Information

- Because of the popularity and value of the “Farm-to-School” program, APS expanded it to all APS schools and hired a coordinator. These programs are coordinated through the APS Office of Food and Nutrition Services, which also helps interested teachers and schools make connections with local agencies/activities including:
 - ✓ Farm-to-school demonstrations
 - ✓ Visiting local orchards
 - ✓ Activities with the Arcadia Center for Sustainable Food & Agriculture
 - ✓ Cooking demonstrations
- **Contact:** Angel McMahan (Farm-to-School Coordinator): (703) 228- 6079, angela.mcmahan@apsva.us or Amy Macloskey (Food and Nutrition Services Manager): (703) 228-1633, amy.maclosky@apsva.us

Stretch Goal

- Schools that are able to increase the frequency of Farm/Orchard experiences may see greater improvement in students’ eating habits, as also help students enjoy the different kinds of fresh foods that occur with each season. See [USDA](#) for more information about “Building Your Farm to School Team.”

Estimated	
Cost	Difficulty
\$ -- \$\$	

⁵ www.countyhealthrankings.org/policies/farm-school-programs
July 2017



Title *Healthy Food Promotion*

Why Eating healthy foods during the school day – especially a healthy breakfast, lunch, and snacks -- improves student health and academic performance.

Benefits Children who are hungry or who live with food insufficiency or insecurity face cognitive, academic, and psychosocial challenges.⁶ Healthy food offered during the school day leads to improved cognitive function, improved attendance rates, reduced absenteeism, and improved psychosocial function and mood.⁷



When During the school day

Existing Policies

- Arlington Public Schools (APS) has been committed for many years to meeting national (USDA) standards for [breakfasts](#) and [lunches](#) served in schools. School [policies](#) and [procedures](#) support this commitment. Access to school meals is supported by a school [policy](#) as well.

Examples

- The APS Office of Food and Nutrition Services provides a variety of nutritious choices for breakfast and lunch each day and menus are planned by a registered Dietician in accordance with the Dietary Guidelines for Americans. The school lunch program is operated under the federally funded National School Lunch program and administered by the USDA and the Virginia Department of Education.
 - **Contact:** Amy Macloskey (Food and Nutrition Services Manager): (703) 228-1633, amy.maclosky@apsva.us
- Barrett Elementary School promotes “Fresh Fruit Fridays” so students experience healthy, fresh fruit during snack time on a regular basis.
 - **Contact:** Dan Redding (Barrett Principal): (703) 228-6288; dan.redding@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$	

⁶ <http://www.cdc.gov/mmwr/pdf/rr/rr6005.pdf>, ref. 62

⁷ [Ibid](#), refs. 73, 185, 186



Title *Information for Parents and Students about Healthy Food Choices*

Why Ready access to information about healthy eating helps parents and students make healthier, more informed choices

Benefits Both CDC and the Institute of Medicine (IOM) highlight the importance of ensuring strong nutritional standards for all foods and beverages sold or provided through schools.^{8,9} The IOM also highlights the importance of “food literacy” and access to information which helps inform healthier choices.

When On-line

Your school menu has now gone digital!
Introducing **Nutrislice**, an online and convenient way to view your child's school lunch menu that has intuitive features and engaging designs. With Nutrislice, you can:

- View nutrition information for each food
- See Carb Counts
- View Allergen Information
- Have access to menus through the Nutrislice mobile app!

Visit apsva.nutrislice.com to see your menu!



Existing Practices

- The APS Office of School and Nutrition Services has breakfast and lunch menus online, so parents and students can see nutrition information, allergen information, carbohydrate counts, and more for served foods. Click [HERE](#) for details.
 - **Contact:** Amy Macloskey (Food and Nutrition Services Manager): (703) 228-1633, amy.maclosky@apsva.us

Existing Policy

- APS has been committed for many years to meeting national ([USDA](#)) standards for meals served in schools. School [policies](#) and [procedures](#) support this commitment.

Estimated	
Cost	Difficulty
Per APS	Per APS

⁸ http://iom.nationalacademies.org/~media/Files/Report%20Files/2012/APOP/APOP_insert.pdf

⁹ <http://www.cdc.gov/mmwr/pdf/rr/rr6005.pdf>



Title *Vegetable/Fruit Gardens*

Why Vegetable/Fruit Gardens are great places for active, hands-on learning about both healthy eating and science

Benefits School gardens serve as an important hands-on opportunity to help students better understand how healthy food is produced. CDC highlights research showing that school gardens used as part of a nutrition education strategy can increase knowledge of healthy foods and increase children’s consumption of fruits and vegetables.¹⁰



When Before, during, and after school

Examples

- Ashlawn Elementary School hosts the “Lawns to Lettuce for Lunch” Program, a unique school-community project to grow vegetables in gardens and yards. The food is both donated to the Arlington Food Assistance Center and eaten by the kids and adults who made it happen. Click [HERE](#) for details.
 - **Contact:** Breonna McClain (Ashlawn Principal), (703) 228-5270, breonna.mcclain@apsva.us
- Jefferson Middle School raised an edible community garden, originally started by a Girl Scout Troop, to serve both the community and school. Click [HERE](#) for details.
 - **Contact:** Keisha Boggan (Jefferson Principal), (703) 228-5900, Keisha.boggan@apsva.us
- Several other APS schools have vegetable and/or fruit gardens, including Discovery Elementary School, Arlington Traditional Elementary School, Campbell Elementary School, Jamestown Elementary School, Nottingham Elementary School, Randolph Elementary School, and H-B Woodlawn Secondary Program.

Additional Information

- See the “Growing Green Schools” project (co-sponsored by APS and FitArlington) [Frequently Asked Questions](#).
- Useful information about gardening projects in and around Arlington can be found [HERE](#).

Estimated	
Cost	Difficulty
\$\$ -- \$\$\$	

¹⁰ http://www.cdc.gov/obesity/downloads/FandV_2011_WEB_TAG508.pdf



Title *Vending Machines in School*

Why Policies that support healthy eating in schools are essential to improving student health and academic performance

Benefits Both students and schools benefit when students have both a better understanding of healthy eating and practice their healthy eating habits on a regular basis. School policies can play a vital role in shaping success. According to the Centers for Disease Control and Prevention, lack of adequate consumption of specific foods, such as fruits, vegetables, or dairy products, is associated with lower grades.¹¹



When During the school day

Existing Policies

- Vending Machines
 - School [policies](#) and [procedures](#) support healthy vending machines

Example

- All APS buildings use “FitArlington Health Vending Machines” thanks to collaborative activities between APS and the Arlington Department of Parks and Recreation to replace 115 individual vending machines with healthier food options. Click [HERE](#) for details.

Stretch Goal

- Vending machines are just one place where students could previously access “junk food.” In 2014 the USDA “[Smart Snacks in School](#)” rule improved the health value of foods at additional settings, but many events and activities – such as fundraisers, events during non-school hours, and others were exempted.¹² As a stretch goal, schools can replace unhealthy foods at these events with:
 - ✓ Healthy foods;
 - ✓ Physical activity events (such as basketball or golf tournaments, bicycle rides, walk-a-thons, dance-a-thons or car washes; or
 - ✓ Auctions of locally-produced or donated items.¹³

Estimated	
Cost	Difficulty
Per APS	Per APS

¹¹ http://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

¹² <http://www.fns.usda.gov/healthierschoolday/tools-schools-focusing-smart-snacks>

¹³ <http://www.cdc.gov/healthyschools/npao/pdf/tips-for-teachers.pdf>

Exercise Best Practices in Schools

The school environment can have a powerful influence on students' exercise and activity habits. In his book “Spark: The Revolutionary New Science of Exercise and the Brain,” author John Ratey describes how the Naperville, Illinois School District used exercise during the school day to dramatically improve fitness AND students' test scores. According to Dr. Ratey, the high school administration was so impressed with the effectiveness of the early morning “Zero Hour” exercise program that it incorporated it into the high school curriculum as a first-period literacy class called “Learning Readiness PE.” Guidance counselors began suggesting that all students schedule their hardest subjects immediately after gym, to capitalize on the beneficial effects of exercise.

Included in detail in this Toolkit are best practice activities that highlight ways to:

- ✓ Promote Safe Routes to Schools
 - Walking to/from school
 - Biking to/from school
- ✓ Support students in participating in sports and exercise activities and programs
 - Can include before/after school programs, intramural sports and interscholastic sports, physical activity clubs, and training/event programs such as “Fun Runs”
- ✓ Maximize recess time
 - Can include encouraging students to play during recess, maximizing aerobic activity during recess, and having staff or volunteers oversee recess (both for safety and to help ensure all kids are participating)
- ✓ Create a physically active classroom
 - Incorporate movement into academic lessons
 - Incorporate short bursts of activity during or between classes
 - Create lessons that require outdoor activities

Where to start

CDC has created an easy-to-use way to identify policies and practices most likely to be effective for increasing exercise through the “Physical Education and Other Physical Activity Programs” module of CDC’s School Health Index. There are only nineteen questions in the module, which also includes a concise way to determine priorities based on the project’s estimated importance, cost, time, commitment, and feasibility. For Elementary schools, click [HERE](#). For Middle/High Schools, click [HERE](#).

Examples

- Jamestown Elementary School completed several modules of the School Health Index and made recommendations for several enhancements. **Contact:** Kenwyn Schaffner (Jamestown Principal): (703) 228-5275, kenwyn.schaffner@apsva.us
- Oakridge Elementary School completed all 8 modules of the School Health index, along with an environmental assessment, and made recommendations for efficient and cost-effective improvements. **Contact:** Dr. Lynne Wright (Oakridge Principal): (703) 228-5840, lynne.wright@apsva.us



Title *Active Indoor Classrooms*

Why Indoor Classrooms are a perfect place for organized exercise – it’s a great way to keep the body and brain in shape while enhancing learning

Benefits Students who are more physically active have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior). The American Association of Pediatrics (AAP) highlights the improved self-esteem which results from increased exercise and activity for children of all weights.^{14,15}



When During the school day

Examples

- Several schools, including Patrick Henry and Barrett Elementary Schools, use “Brain Breaks” help students get more exercise during the day. “Brain Breaks” are short (2-3 min) activities during class. Click [HERE](#) for details.
 - **Contact:** Annie Frye (Patrick Henry Principal): (703) 228-5820, andrea.frye@apsva.us
 - **Contact:** Dan Redding (Barrett Principal): (703) 228-6288; dan.redding@apsva.us

- Oakridge Elementary School recently pioneered “Pedal Desks” and Yoga ball chairs as part of a pilot program to improve kids’ ability to learn while in school. Click [HERE](#) for details.
 - **Contact:** Dr. Lynne Wright (Oakridge Principal): (703) 228-5840, lynne.wright@apsva.us

Additional Information:

- A variety of resources exist for “Brain Breaks” and similar activities students of all ages:
 - ✓ [Move-to-Improve, grades K-3](#) (NYC Public Schools)
 - ✓ [Move-to-Improve, grades 4 - 5](#) (NYC Public Schools)
 - ✓ [Middle School Activity Breaks](#) (Austin, Texas)
 - ✓ [Middle and High School Physical Activity Breaks](#) (Colorado Education Initiative)

Estimated	
Cost	Difficulty
\$-- \$\$\$	

¹⁴ <https://www.healthychildren.org/English/healthy-living/fitness/Pages/Physical-Activity-Better-Health.aspx>

¹⁵ <http://pediatrics.aappublications.org/content/117/5/1834.full?sid=08f49b00-95fa-4a2e-b1a2-0271c130d4c1>



Title *Active Outdoor Classrooms*

Why Outdoor Classrooms are a perfect place for activity and learning

Benefits Students who are more physically active have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior). The American Association of Pediatrics (AAP) highlights the improved self-esteem which results from increased exercise and activity for children of all weights.¹⁶¹⁷



When During the school day

Examples

- Campbell Elementary School uses its Wetlands Learning Lab as an outdoor classroom. Click [HERE](#) for more information about the Lab.
 - **Contact:** Maureen Nesselrode (Campbell Principal): (703) 228-6770, Maureen.nesselrode@apsva.us
- Tuckahoe Elementary School uses outdoor classrooms in all grades, getting students outside for active, hands-on learning and using the outside environment as an important teaching tool. Click [HERE](#) for details.
 - **Contact:** Mitch Pascal (Tuckahoe Principal): (703) 228-5288, mitch.pascal@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$\$	

¹⁶ <https://www.healthychildren.org/English/healthy-living/fitness/Pages/Physical-Activity-Better-Health.aspx>

¹⁷ <http://pediatrics.aappublications.org/content/117/5/1834.full?sid=08f49b00-95fa-4a2e-b1a2-0271c130d4c1>



Title *Biking*

Why Biking to and from school is a great way to increase physical activity every day

Benefits Students and schools benefit when students are active before, during, and after school. According to the Centers for Disease Control and Surveillance (CDC), students who are more physically active tend to have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior).¹⁸

When Before, during, and after school



Existing Policies: APS supports the Safe Routes to School Program through these [policies](#).

Examples

- Patrick Henry Elementary School hosted a “Save the Noggin” campaign to provide bike helmets to students who either didn’t have them or needed new ones. Click [HERE](#) for details.
 - **Contact:** Annie Frye (Patrick Henry Principal): (703) 228-5820, andrea.frye@apsva.us
- Kenmore Middle School has an active Bike Club that is assisted by [Phoenix Bikes](#) and the APS [Safe Routes to Schools Program](#)
 - **Contact** Mr. David McBride, david.mcbride@apsva.us, (703) 228-6804
- Stratford Program implemented a bicycle education curriculum at their school (thanks to generous grants received from VDOT and Strider Bikes)! Balance bikes of various colors were purchased and delivered to the school, where students are taught how to mount/dismount a bicycle; how to start and stop using one’s feet; how to balance, turn, and glide on the bike; and how to get up and down an incline on the bike. Click [HERE](#) for details.
 - **Contact:** Mr. David McBride, david.mcbride@apsva.us, (703) 228-6804
- Other schools have active bicycling clubs and activities, including Carlin Springs Elementary School, Nottingham Elementary School, Swanson Middle School, and H-B Woodlawn Secondary program.

Additional Contacts:

- Phoenix Bikes
 - **Contact:** Meg Rapelye Phoenix Bikes Executive Director): (703) 575-7762
- [Safe Routes to Schools](#) is active in Arlington, and APS has a website (that also describes potential funding opportunities up to \$1000 in Quick Start Mini Grants from Virginia DOT).
 - **Contact:** Lauren Hassel (APS Safe Routes to Schools Coordinator): (703) 228-2132; lauren.hassel@apsva.us

Estimated	
Cost	Difficulty
\$ - \$\$	



¹⁸ http://www.cdc.gov/healthyouth/health_and_academics/pdf/health-academic-achievement.pdf



Title *Exercise Log*

Why Kids learn to measure their existing behavior and use this information to eat healthy foods and exercise more often

Benefits Children, like adults, are more likely to understand their health and fitness if they consciously measure what they are doing. Measuring the baseline is the first step, followed by an increase in healthy eating and exercise activities, combined with positive reinforcement. Noted leadership trainer John E. Jones sums it up perfectly: “What gets measured gets done. What gets measured and fed back gets done well. What gets rewarded gets repeated.”¹⁹



When Before, during, and after school

Examples

- Claremont Elementary School 5th graders keep a “Fitness Log”, measuring minutes of exercise each week whether they are at school, at home, or out in the community. They then work to increase their time and improve their fitness.
 - Jessica Panfil (Claremont Principal): (703) 228-2500; jessica.panfil@apsva.us

Estimated	
Cost	Difficulty
\$ - \$\$	

¹⁹ <https://www.swspitcrew.com/articles/What%20Gets%20Measured%201106.pdf>
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Title *Fitness Programs*

Why Exercise before and after school is a great way to reach the goal of 60 minutes a day

Benefits Students who are more physically active have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior). The American Association of Pediatrics (AAP) highlights the improved self-esteem which results from increased exercise and activity for children of all weights.^{20,21} Participation in extracurricular physical activities is associated with higher grade point averages, lower drop-out rates, and fewer disciplinary problems among students.²²



When Before, during, and after school

Example

- Oakridge Elementary School offers free before school activities for students including soccer, hip hop dance, handball, “Power Up”, and more through the ‘2FIT2QUIT’ program. Click [HERE](#) for details.
 - **Contact:** Dr. Lynne Wright (Oakridge Principal): (703) 228-5840, lynne.wright@apsva.us
- Arlington Science Focus Elementary School offers “Project Fit America”, a national program that helps students build a fit and active lifestyle before, during, and after school through a variety of activities and challenges. In addition, students learn how to track their personal fitness and reach attainable goals. Click [HERE](#) for details.
 - **Contact:** Mary Begley (Science Focus Principal): (703) 228-7670, mary.begley@apsva.us
- Patrick Henry Elementary School offers “Zero Hour PE - 15: Jump Start the Day with Exercise” to help students activate their bodies and brains and get more exercise during the day. “Zero Hour PE” is 10 minutes of high-energy running and games in the gym, 3 times per week. Click [HERE](#) for details.
 - **Contact:** Annie Frye (Patrick Henry Principal): (703) 228-5820, andrea.frye@apsva.us
- Glebe Elementary School offers the “BFF (Be your Body’s Best Friend Forever) Walk, Ride and Roll program, which is a year-long program which focuses on healthy eating, sleeping, and exercise. Students have a healthy food choice to try in the cafeteria on a monthly basis and in the winter a “sleep study” is done by the students tracking their sleep and eating habits for week. Every Friday, students who walk, bike or roll get a ticket punched and at the end of each month they put their ticket in a raffle. The winners get prizes like a session at the trampoline place.
 - **Contact:** Jamie Borg (Glebe Principal): (703) 228-6280, Jamie.Borg@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$	

²⁰ <https://www.healthychildren.org/English/healthy-living/fitness/Pages/Physical-Activity-Better-Health.aspx>

²¹ <http://pediatrics.aappublications.org/content/117/5/1834.full?sid=08f49b00-95fa-4a2e-b1a2-0271c130d4c1>

²² http://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf



Title *Flexibility and Strengthening*

Why Flexibility and strength are both essential aspects of fitness

Benefits Flexibility, Muscular Strength, and Muscular Endurance make up three of the five parts of the Presidential Youth Fitness Program²³ (Aerobic Capacity and Body Composition are the others). The Centers for Disease Control and Prevention recommend that kids age 6 – 17 get 60 minutes of exercise every day, and that on at least 3 days a week they include muscle and bone strengthening activities.²⁴ In addition, the AAP²⁵ strongly supports activities like Yoga and Tai Chi that allow children and youth to improve their strength and flexibility.



When Before, during, and after school

Example

- The Arlington Career Center has incorporated Tai Chi as a regular part of the Health and PE program to promote holistic wellness, mindfulness, and balance. A local Tai Chi master provides a two week class to students each quarter.
 - **Contact:** Margaret Chung (Career Center Principal): (703) 228-5730, margaret.chung@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$	

²³ <https://pyfp.org/resource-library>

²⁴ <https://www.cdc.gov/physicalactivity/basics/children/>

²⁵ <https://www.healthychildren.org/English/healthy-living/emotional-wellness/Pages/Permission-to-Unplug-The-Health-Benefits-of-Yoga-for-Kids.aspx>



Title *Intramural Sports*

Why Being physically active is one of the most important steps to being healthy

Benefits Students and schools benefit when students are active during the school day. According to the Centers for Disease Control and Surveillance (CDC), students who are more physically active tend to have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior).²⁶



When During the school day

- Washington Lee High School implemented Lunch Time Intramurals. During all three lunches, the gymnasium and stadium field are both available and monitored for students use. By providing this additional opportunity, many of students choose to be active during their lunch break therefore helping them lead a healthy lifestyle.
 - **Contact:** Dr. Gregg Robertson (Washington Lee Principal): (703) 228-6200, Gregg.robertson@apsva.us

- Arlington Community High School’s Moving Mavericks is a fitness club that meets every Friday during lunch to play sports {soccer, football, basketball, Frisbee, volleyball, etc.) OR do Zumba (they break into two groups) – members include students and staff. This is a very popular activity weekly (approximately 20+ participants weekly depending on weather).
 - **Contact:** Dr. Barbara A. Thompson (Arlington Community High School Principal): (703) 228-5350, Barbara.thompson@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$	

²⁶ http://www.cdc.gov/healthyouth/health_and_academics/pdf/health-academic-achievement.pdf

Title *Recess*

Why Recess provides students with essential exercise during the school day

Benefits Both students and schools benefit when students have exercise and activity built into the school day, and elementary school recess is an essential part of the CDC-recommended 60 minutes of exercise per day for children.²⁷ Time spent in recess has been shown to positively affect students’ cognitive performance (e.g., attention, concentration) and classroom behaviors (e.g., not misbehaving).^{28,29}



When During the school day

Examples

- Hoffman Boston Elementary School was one of 6 elementary schools that piloted the “Active Recess” program in 2013. The two-year grant was funded by the Virginia Foundation for Healthy Youth to increase children’s activity levels during the school day and combat childhood obesity. Click [HERE](#) for details.
 - **Contact:** Kimberley Graves (Hoffman-Boston Principal): (703) 228-5845; Kimberly.graves@apsva.us
- Taylor Elementary School uses the “Responsive Classroom” approach to recess at the beginning of the school year. The teachers assign and teach specific activities at recess for the first month of school. The school can be sure that everyone knows how to use the playground safely, everyone is included, and children learn group games that they can initiate once the teachers release them from assigned activities. Click [HERE](#) for details.
 - **Contact:** Harold Pellegrin (Taylor Principal): (703) 228-6275; harold.pellegrin@apsva.us
- Barrett Elementary School created “Indoor Recess Kits” to be used on inclement weather days in order to promote movement and activity.
 - **Contact:** Dan Redding (Barrett Principal): (703) 228-6288; dan.redding@apsva.us
- Nottingham Elementary School instituted the “Knights in Motion” running program that takes place every Friday during recess, weather permitting. Knights run laps, earn lap/mile tokens and track mileage. Because 200-300 1st – 5th grade students participate, many parent volunteers help out, and share the success of their children and friends.
 - **Contact:** Mary Beth Pelosky (Nottingham Principal): (703) 228-5290, Marybeth.pelosky@apsva.us
- Gunston Middle School provides extra recess/exercise time for students during the school lunch time.
 - **Contact:** Lori Wiggins (Gunston Principal): (703) 228-6900; lori.wiggins@apsva.us

Estimated	
Cost	Difficulty
\$ -- \$\$\$	

²⁷ http://www.bridgingthegapresearch.org/asset/1d74y4/Supporting_Recess_Elementary_Schools_Oct_2014.pdf

²⁸ http://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

²⁹ <http://pediatrics.aappublications.org/content/131/1/183.full>



Title *Running*

Why Being physically active is one of the most important steps to being healthy

Benefits Students and schools benefit when students are active before, during, and after school. According to the Centers for Disease Control and Surveillance (CDC), students who are more physically active tend to have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior).³⁰



When Before, during, and after school

Examples

- Claremont Elementary School participates each October in the Marine Corps Marathon Healthy Kids Fun Run. This one mile run helps motivate students to train and get in shape. Click [HERE](#) for details.
 - **Contact:** Jessica Panfil (Claremont Principal): (703) 228-2500, Jessica.panfil@apsva.us
- Abingdon Elementary School offers several activities, including Girls on the Run, and also a running club.
 - **Contact:** Joanne Uyeda (Abingdon Principal): (703) 228-6650, joanne.uyeda@apsva.us
- Many APS Schools participate in the “Girls on the Run” Program, including Arlington Science Focus Elementary School, Barcroft Elementary School, Discovery Elementary School, Drew Model School, Key Elementary School, Jamestown Elementary School, Nottingham Elementary School, Long Branch Elementary School, Oakridge Elementary School, Taylor Elementary School, Tuckahoe Elementary School, and Williamsburg Middle School. Click [HERE](#) for more details.

Estimated	
Cost	Difficulty
\$ -- \$\$	

³⁰ http://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

Title *Walking*

Why Walking to school is a great way to increase daily physical activity

Benefits Students and schools benefit when students are active before, during, and after school. According to the Centers for Disease Control and Surveillance (CDC), students who are more physically active tend to have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior).³¹



When Before, during, and after school

Existing Policies

- APS supports the Safe Routes to School Program through these [policies](#).

Examples

- Ashlawn Elementary School uses a “Walking School Bus” to get groups of students safely to school and get more exercise. Click [HERE](#) for details.
 - **Contact:** Breonna McClain, breonna.mcclain@apsva.us, (703) 228-5270
- Nottingham Elementary School uses “Trek to School Tuesdays” and “Walk to School Wednesdays” as ways to increase the number of students getting to school under their own power. Click [HERE](#) for details.
 - **Contact:** Mary Beth Pelosky (Nottingham Principal): (703) 228-5290, Marybeth.pelosky@apsva.us
- Swanson Middle School has worked to earn Silver Certification with the Arlington Transportation Partners through the efforts of staff and students. Well over half of Swanson students walk or bike to school daily and are active participants in Walk and Bike to School Days in both the Fall and Spring.
 - **Contact:** Shannan Ellis (Swanson Assistant Principal): (703) 228-5503, shannan.ellis@apsva.us

Additional Information:

- [Safe Routes to Schools](#) is active in Arlington, and APS has a website (that also describes potential funding opportunities up to \$1000 in Quick Start Mini Grants from Virginia DOT).
 - **Contact:** Lauren Hassel (APS Safe Routes to Schools Coordinator): (703) 228-2132; lauren.hassel@apsva.us



Estimated	
Cost	Difficulty
\$ -- \$\$	

³¹ http://www.cdc.gov/healthyouth/health_and_academics/pdf/health-academic-achievement.pdf



Measuring Progress

Being able to measure progress from baseline to goal is essential for any topic, whether grades, test scores, healthy eating or physical activity. Each student is unique —a child who gets all Bs may have made great progress if last year he/she had all Cs; or may be experiencing a significant problem if last year he/she had all As; or may be unchanged if he/she had all Bs last year too.

For student performance and health, a similar set of measurements that assess baseline and progress will help students, parents, and teachers understand how the student is doing. Numerous data sources already exist within APS that can be used to measure progress for a new or existing activity. Below is an example of how to easily integrate an activity with measurement.

Step 1: Choose an activity from the toolkit.

- Decide on scope and scale (one or several classes, an entire grade, or the whole school)

Step 2: Use Table 1 on page 23 to select at least one Focus Area and one Indicator

Step 3: Select Measurement Strategy

- Compare results to time period in same year before activity began; or
- Compare results to previous year; or
- Compare results to other, similar schools; or
- Compare results to non-participating students in same school (caution: depending on the intervention, parents or others may express concern about their children being “left out” of a program)

Step 4: Measure or obtain baseline indicator(s)

Step 5: Initiate the program

Step 6: Re-measure or obtain indicator(s) as indicated by the Measurement Strategy

Step 7: Compare results to see if anticipated outcomes are met

Estimated	
Cost	Difficulty
\$	

Table 1

Focus Area	Indicator	Anticipated Outcome (HE = Healthy Eating activity; E = Exercise activity)
<u>Academic Performance</u>	<ul style="list-style-type: none"> • Grades • SOLs • Other standardized tests • Graduation data 	<ul style="list-style-type: none"> • Improved grades (HE, E) • improved test scores (HE, E) • graduation rates (E)
<u>Behavioral</u>	<ul style="list-style-type: none"> • Absenteeism • Drop-out data • Disciplinary incidents/detention rates • Suspension data • ATSS data 	<ul style="list-style-type: none"> • Improved attendance/Reduced absenteeism (HE, E) • Reduced repeating of grade (HE) • Reduced drop-out rates (E) • Improved on-task behavior (E) • Reduced behavioral problems (E)
<u>Cognitive skills and attitudes</u>	<ul style="list-style-type: none"> • Grades • SOLs • Other standardized tests • Other tests of cognitive skills 	<ul style="list-style-type: none"> • Improved attention (HE, E) • Improved concentration (HE, E) • Improved memory (HE, E)

Note: Just like grades, each measure can be used both for a single student to track their individual progress, and for the school to track class, grade or school progress.

Measuring Health and Fitness

Student health and fitness indicators can also be measured with the same 7 step process using Table 2 on page 25.

Using FitnessGram

All APS schools already annually measure students' strength, flexibility, muscular endurance, and aerobic capacity in grades 4 - 10 through the FitnessGram process. Several schools also use FitnessGram to measure body composition through measuring height and weight and calculating Body Mass Index (BMI).

- BMI measurement can be controversial and, if done, must be done in a way to protect students' privacy and self-esteem. With these protections, CDC notes that knowing their BMI can increase students' awareness of their health status and allow them to practice behaviors that promote a healthy weight.³²
- The American Heart Association states that measuring BMI is an important screening tool for identifying and reducing childhood obesity,³³ and supports BMI assessment in schools for the purpose of surveillance and to determine the efficacy of obesity prevention and intervention programs.³⁴

Example

- Carlin Springs Elementary School measures Body Mass Index (BMI) along with the standard FitnessGram testing for students in 3rd, 4th, and 5th grades. The height/weight measurement is performed by school PE staff in a confidential setting, and results are sent home to all parents. PE staff reach out to the parents of students needing improvement in any of the 5 areas (Muscular strength/endurance, flexibility, aerobic capacity, and BMI). The measurements are performed in the fall and repeated at the end of the school year to measure improvement. **Contact:** Eileen Delaney (Carlin Springs Principal): (730) 228-6645; Eileen.delaney@apsva.us

- The Cooper Institute developed FitnessGram, the first "student fitness report card," in an effort to improve school physical education programs and children's health.
- It is a health-related youth fitness assessment that utilizes evidence-based standards to measure the level of fitness needed for good overall health.
- FitnessGram is the choice of the Presidential Youth Fitness Program.

³² http://www.bridgingthegapresearch.org/asset/srnnhy/Addressing_Weight_Status_Measurement_Oct_2014.pdf

³³ http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/ChildhoodObesity/BMI-in-Children_UCM_308993_Article.jsp#.VqKu7TbG_zl

³⁴ http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301789.pdf

Table 2

Focus Area	Indicator	Anticipated Outcome
<u>Health and Fitness</u>	<ul style="list-style-type: none"> • FitnessGram results • BMI results • Cafeteria data on purchase and/or consumption of fruits and vegetables • Health and PE SOL results • School Health data • APCYF Asset and YRBS data 	<p><u>Improved Nutrition</u></p> <ul style="list-style-type: none"> • Improved consumption of healthier foods • Improved BMI • Improved knowledge of healthier eating habits • Improved practice of healthier eating habits <p><u>Increased Exercise</u></p> <ul style="list-style-type: none"> • Improved FitnessGram results • Improved BMI • Improved knowledge of health benefits of exercise • Improved practice of healthier exercise habits

Note: Just like grades, each measure can be used both for a single student to track their individual progress, and for the school to track class, grade or school progress.

Examples of Effective Graphics
(Click on each image to go to its website)

