

**Title:** How Much Is Enough?

**Section:** Physical Activity

**Investigative Questions:** How much physical activity should kids engage in?  
In what types of physical activity should kids engage?

**Description of Content:**

The purpose of this activity is to allow students to summarize the types of physical activity that they have been engaged in, whether they are meeting personal goals, and whether they are meeting the recommended physical activity guidelines. The minimum guideline specifies that people of this age should participate in physical activity five days a week for a combined time of 60 minutes per day. In addition, they should make sure to participate in a variety of different activities.

“How Much Is Enough?” will also allow students to re-evaluate personal goals and plans for physical activity created in previous BAM.gov projects, both for the short-term and to carry into adulthood. Actions taken as a youth directly influence attitudes towards future behavior, and intentions for future actions, such as adhering to personal physical activity plans. This activity allows students to formulate their intentions to participate in future physical activity. Although students may change the specific activities in which they participate as they grow older, if established at a young age, healthy behaviors will remain their “way of life.”

**Relevant Standards:**

National educational standards that correspond to this activity appear below. Grades 5-8 and grades 9-12 standards are listed to address those middle schools that include ninth grade.

*National Science Education Standards*

Grades 5-8, Standard F

- Regular exercise is important to the maintenance and improvement of health. The benefits of physical fitness include maintaining healthy weight, having energy and strength for routine activities, good muscle tone, bone strength, strong heart/lung systems, and improved mental health. Personal exercise, especially developing cardiovascular endurance, is the foundation of physical fitness.

Grades 9-12, Standard F

- Personal choice concerning physical fitness and health involves multiple factors. Personal goals, peer and social pressures, ethnic and religious beliefs, and understanding of biological consequences can influence decisions about health practices.

*National Health Education Standards*

Grades 5-8

Standard 3

- Students will demonstrate the ability to practice health enhancing behaviors and reduce health risks.

Standard 6

- Students will demonstrate the ability to use goal setting and decision making skills to enhance health.

**Objectives:**

Students will:

- Organize personal information relative to their engagement in physical activities.
- Apply personal physical activity plans and analyze them for sufficiency and deficiency.
- Describe the relationship of recommended physical activity levels to personal health and well-being.
- Create a personal health assessment to determine physical activity strengths and risks.
- Determine their personal reasons to participate in physical activity.

**Ideas Commonly Held by Students:**

These ideas, drawn from the literature, represent some of the ways adolescents think and act with respect to their environment in general, and physical activity in particular. They are important considerations when developing lessons around the activities that follow.

- Intentions are most strongly influenced by attitudes about the behaviors in question, perceived barriers to enacting intentions, and what individuals believe other people would have them do (Ajzen and Fishbein, 1980).
- Students desire to participate in sports and physical activity declines between the ages of 10 and 18 (Ewing and Seefeldt, 1988) and hours spent being physically active decline between grades 6 and 10 (Butcher, 1985).
- Higher physical self-worth relates to more positive feelings about physical activity, but does not directly relate to preference for challenge or physical activity (Smith, 1999).

**Materials:**

Records from previous activities in the physical activity series:

*Active or Not, Here It Comes!*

- Physical activity log
- Answers to analysis questions

*Planning for Physical Activity*

- Physical activity graphs
- Shaded body plans
- Plan for engaging unworked portions of the body

Copies of the Summary of Weekly Physical Activities worksheet (page 9)

Copies of the Physical Activity Summary Essay sheet (page 10)

**Procedure:**

*Engagement (time ~ 10 minutes)*

1. Students should compile all of the materials (i.e., logs, graphs, and written responses to questions) generated as a result of their previous BAM.gov school work on physical activity.

Have students organize their materials into the following categories: quantitative or empirical (i.e., direct observations, such as measurements recorded in physical activity logs), subjective (i.e., students' feelings or opinions, such as written responses to analysis questions), and artifactual (i.e., physical products created by students, such as shaded body plans) categories.

2. Pose these questions to them to pique their interest and prepare them for the next activities: How much physical activity do you do? Is it enough? Is it the right kind?

*Exploration (time ~ 15-20 minutes)*

1. Begin by asking students what their favorite form of physical activity is. Have students support their statements with their physical activity logs, written responses to questions, and graphs from previous BAM.gov physical activity projects.

2. Using either the summary sheet on page 9, or the physical activity calendar found in the BAM.gov Physical Activity section as a tool, have the students summarize the physical activity they have engaged in. For each activity, they will list (a) parts of the body worked, (b) how many times per week they engaged in the activity, and (c) the average amount of time spent participating in each activity per “session.” Please explain to the students that neither the sheet nor calendar needs to be completely filled in.
3. Have the students compare their results with the plans that they previously set when they completed the second BAM.gov physical activity project (“Planning for Physical Activity”).

*Explanation (time ~15 minutes)*

1. Have the students look over their completed summary sheet (page 9) or BAM.gov calendar and identify the number of times per week, and amount of time per session, engaged in physical activities.
2. Explain to them that the recommended minimum guideline for people their age is participation in physical activity five days a week for a combined time of 60 minutes per day. In addition, they should make sure to participate in a variety of different activities.

Ask each student the following questions:

- Did you attain or exceed the recommended level of activity?
  - Did your plans for physical activity that you created in the second BAM.gov project (“Planning for Physical Activity”) include that level of activity? Did you meet your goal?
  - Was your range of activities broad or narrow?
3. Have students provide a final summary statement that includes the answers to each of the above questions.

*Elaboration (time ~20-30 minutes)*

1. Research has demonstrated that the best predictor of future behaviors is the intention to engage in the behavior. Attitudes are composed of reflections on prior physical activities, beliefs about the activity, and feelings about the activity. In order to capture and make evident to students their intentions and attitudes, have them write a brief essay in which they consider the questions that appear on the sheet on page 10.

2. *Note to teachers:* Each of the essay questions asks students to reflect on a component of their attitudes toward physical activity, which affect future intentions and actions. Questions (a) and (b) make clear to students the action they have already taken to engage in physical activity, as well as their own intentions and feelings about those activities. Question (c) address students' beliefs about how physical activity affects them. Question (d) captures their perception of the control they have over their own behavior, and question (e) specifically addresses students' beliefs about what others would have them do. Question (f) allows students to summarize each of these components in terms of intentions to engage in the recommended levels of physical activity. This essay also presents an opportunity to address writing across the goals that might exist in your school's curriculum.
  
3. Upon completion of this summative exercise, and while you evaluate each student's work, share with them an analysis of their intentions to engage in at least the recommended levels of physical activity. If they are falling short of the recommended levels, help them to recognize what they can modify in their lives to attain those goals. Students may see BAM.gov's Physical Activity section, as well as the other sites listed in the "Web Resources" section of this activity, for more information on how they can add physical activity into their lifestyles. Explain to them that even if they currently are not meeting the recommended levels, they have the power to adjust what it takes to meet the goals. When students do reach their goals, encourage them to share their success with others by writing into BAM.gov Braggin' Rights, found in the XTRA's section under Physical Activity.

## Evaluation

Students overall evaluation for this activity can be based on the performance descriptors scheme below.

### Performance Descriptors:

Rating	Performance Descriptor
4	Students organize personal information relative to their engagement in physical activities and fully employ the information in their analyses of sufficiency of their physical activities and plans for physical activity, relating areas of deficiency as well. Students can relate the relationship of meeting the recommended requirements to their personal well-being. Summative essays include detailed information about sufficiency of plans and possible future adjustments to plans for physical activity. Students can clearly articulate a complete set of reasons for participating in physical activities, with their relative importance.
3	Students organize personal information relative to their engagement in physical activities and make limited use of the information in their analyses of sufficiency of their physical activities and plans for physical activity. Students can relate the relationship of meeting the recommended requirements to overall well-being. Summative essays include adequate but not detailed information about sufficiency of plans and offer a few possible adjustments to short-term plans for physical activity. Students can provide a set of reasons for participating in physical activities, but not the relative importance of these reasons.
2	Students make loose organization of personal information relative to their engagement in physical activities and make slight use of the information in their analyses of sufficiency of their physical activities or plans for physical activity. Students cannot relate the relationship of meeting the recommended requirements to overall well-being. Summative essays include adequate but not detailed information about sufficiency of plans and offer no possible adjustments to plans for physical activity. Students provide some specific personal reasons for participating in physical activities, but these reasons are not a complete set and have no relative importance
1	Students attempt some organization of personal information relative to their engagement in physical activities, but the organization does not allow for determination of sufficiency of their physical activities or plans for physical activity. Summative essays address some but not all of the important points that influence intentions to engage in physical activity. Students relate only a few or little in the way of personal reasons for participating in physical activity.

## Web Resources:

[www.bam.gov](http://www.bam.gov)

*BAM!* is brought to you by the Centers for Disease Control and Prevention (CDC), an agency of the U.S. Department of Health and Human Services (DHHS). *BAM!* was created to answer kids' questions on health issues and recommend ways to make their bodies and minds healthier, stronger, and safer. *BAM!* also serves as an aid to teachers, providing them with interactive activities to support their health and science curriculums that are educational and fun.

[www.kidshealth.org](http://www.kidshealth.org)

KidsHealth provides health information about children from before birth through adolescence, presented on separate areas for kids, teens, and parents. The site was created by the Nemours Foundation's Center for Children's Health Media and all of its information is doctor-approved.

[www.nlm.nih.gov/medlineplus/exercisephysicalfitness.html](http://www.nlm.nih.gov/medlineplus/exercisephysicalfitness.html)

MedlinePlus is a site maintain by the National Library of Medicine, National Institutes of Health. The “Exercise and Physical Fitness” page offers many links to web pages with information on physical activity and health.

<http://exchange.co-nect.net/Teleprojects/project/Fitness>

This site allows for an assessment of personal physical activity relative to other students, and the opportunity to participate in a online web-quest to track the results of their physical activity.

[www.cdc.gov/HealthyYouth/physicalactivity/pdf/facts.pdf](http://www.cdc.gov/HealthyYouth/physicalactivity/pdf/facts.pdf)

CDC’s physical activity and the health of young people fact sheet. Includes links to other related CDC resources.

[www.cdc.gov/nccdphp/sgr/adoles.htm](http://www.cdc.gov/nccdphp/sgr/adoles.htm)

This page provides a fact sheet on adolescents and young adults from the Surgeon General’s Report on Physical Activity and Health.

<http://library.thinkquest.org/12153/basics.html>

This site offers physical activity definitions, as well as information on warming-up before, and cooling-down after, physical activity. In addition, the “Attitude” link offers information on the importance of goal setting.

[www-nehc.med.navy.mil/hp/fitness/index.htm](http://www-nehc.med.navy.mil/hp/fitness/index.htm)

NEHC Physical Fitness Homepage for the Navy Environmental Health Center, Norfolk, VA. Contains links for posters, physical tests, nutrition guides, and physical activity planning guides.

[www.nih.gov/health/exercise](http://www.nih.gov/health/exercise)

This online pamphlet from the National Institutes of Health and the National Heart Lung and Blood Institute offers information on how physical activity can benefit the body, with special focus on the heart and lungs. It also outlines ways to start and maintain a physical activity routine.

[www.cdc.gov/excite/](http://www.cdc.gov/excite/)

The Excellence in Curriculum Integration Through Teaching Epidemiology (EXCITE) site provides a collection of teaching materials developed by the Centers for Disease Control and Prevention (CDC) to introduce students to public health and epidemiology, the science used by "Disease Detectives" everywhere. Students will learn about the scientific method of inquiry, basic biostatistics, and outbreak investigation. EXCITE adapts readily to team teaching across a variety of subjects, including mathematics, social studies, and even history and physical education.

### **Text Correlations:**

Prentice Hall *Science Explorer – Human Biology and Health*, pages 21-28

Glencoe *Teen Health*

Glencoe *Science Voyages*

Southwestern Publishing *Science Probe I*, Chapter 10

### **References:**

Ajzen, I. & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Butcher, J. (1985). Longitudinal analysis of adolescent girls' participation in physical activity. *Sociology of Sport Journal*, 2, 130-143.

Ewing, M. E. & Seefeldt, V. (1988). *American youth and sports participation*. North Palm Beach, FL: American Footwear Association.

Smith, A. L. (1999). Perceptions of peer relationships and physical activity participation in early adolescence. *Journal of Sport and Exercise Psychology*, 21, 329-350.



### Summary of Weekly Physical Activities

Activity	Parts of the Body Worked	Times per Week	Average Duration of Each Session
			___ minutes
			___ minutes
			___ minutes
			___ minutes
			___ minutes
			___ minutes
			___ minutes
			___ minutes
			___ minutes

## Physical Activity Summary Essay

**Please write an essay in which you consider the questions below.**

- a) What physical activity goals did you set for yourself? Did you meet them? Why or why not? How does this make you feel?
- b) Did the goals you set meet the recommendations? (People your age should participate in physical activity five days a week **or more**. You should try out different types of activities, and spend a total of 60 minutes **or more** being physically active each day.)
- c) What do you now know about the impact of physical activity on your body and how it may affect how you see yourself?
- d) What types of things do you think would help you to get the recommended amount of physical activity?
- e) What do the people close to you think about your level of physical activity? Is it important or unimportant to them that you are physically active?
- f) Now that you know more about physical activity, what will you do about your own activity level?