

THE SCHOOL DISTRICT OF PHILADELPHIA
Office of Parent, Family, Community Engagement
& Faith-Based Partnerships



Preparing for **Parent**
PSSA **Handbook**
for Student
Success



Parents Are Our Partners
THE SCHOOL DISTRICT OF PHILADELPHIA

Preparing for **PSSA**

Parent Handbook for Student Success

This handbook was created by the Office of Parent, Family, Community Engagement & Faith-Based Partnerships – an office which coordinates parent and community engagement initiatives at the School District of Philadelphia.

Some of the programs and initiatives sponsored by our office include:

- Parent University (see the back cover for more information);
- Parent and Family Resource Center;
- Parents 'R Equal Partners Program (PREP);
- Title I Parent Advisory Council.

Our office also:

- Supports the work of school-based school improvement support liaisons and bilingual counseling assistants;
- Provides technical assistance and training to School Advisory Councils;
- Collaborates with organized parent groups, community and faith-based organizations;
- Promotes parent and community engagement across the District;
- Provides targeted programs and supports for multilingual families.

To learn more about the programs and services we offer, please call us at 215.400.4180 or visit our Parent and Family Resource Center at 440 N. Broad Street, Philadelphia, PA 19130.

To visit us online go to the District's website: www.philasd.org and click "Parent Engagement" quick link inside the green box titled "PARENTS".

Numerous studies have shown that parent engagement has a real and tangible effect on student success. When parents are engaged in their child's education, children have better grades, better attendance, higher graduation rate and are more likely to proceed to post-secondary studies. Education World offers the following suggestions on how parents can help their children succeed:

- Talk to your child daily about school activities and experiences.
- Stay in touch with your child's teachers, even when no problems exist.
- Broaden your child's understanding of the world by visiting malls, museums, parks, zoos, universities, sports stadiums, theaters, farms, and local landmarks. Always discuss what you've seen during your trips.
- Make learning relevant: encourage kids to count money; make shopping lists; calculate costs, sales prices, and taxes; read menus and newspapers; and write letters.
- Designate a specific time and place for homework.
- Read to your child daily and encourage independent reading. Make frequent trips to the public library.
- Set goals that are challenging but attainable.
- Visit the school regularly and become involved in school activities as often as possible.
- Become familiar with your child's curriculum and its required skills and goals.
- Be aware that your attitudes about school and teachers influence your child's attitudes.

We are also encouraging parents to be supportive and positive. Teach your child the value of self esteem and caring for others. Set high expectations and help your child reach them. If something goes wrong, defer your judgment and problem solve together. Help your child build resiliency: coping with failure and learning from it is a key to success.

Help your child distinguish blame from responsibility. Blame makes us look at the past with no power to change things; it undermines our motivation and self esteem. Responsibility implies the ownership of results – it is forward looking and builds initiative and self esteem. Refrain from placing blame and encourage your child to take responsibility for his or her actions.

2012 TESTING CALENDAR

Assessment	Dates	Grade(s)
PSSA Grade 12 Retest in Math, Reading, Science and Writing	October 22 - November 2, 2012	12
PSSA Math and Reading PSSA-M Math and Reading	March 12 - 23, 2012	3 - 8, 11 4 - 8, 11
Math and Reading Make-Ups	March 26 - 30, 2012	As Needed
PSSA Writing	April 16 - 20, 2012	5, 8, 11
PSSA Science PSSA-M Science	April 23 - 27, 2012	4, 8, 11 8, 11
Writing and Science Make-Ups	April 30 - May 4, 2012	As Needed
PASA Math and Reading	February 13 - March 23, 2012	3 - 8, 11
PASA Science	May 1 - 25, 2012	4, 8, 11
NAEP (in selected schools)	January 23 - March 2, 2012	4, 8, 12

It is extremely important that students come to school on all the dates assigned for PSSA testing. Please make sure that on all the testing dates your child comes to school on time, well rested and ready to take the test.

Pennsylvania System of School Assessment Performance Level Descriptors

Below are general descriptions of the performance level descriptors. Each grade level and subject has specific descriptions, which can be found on the Pennsylvania Department of Education (PDE) website at <http://www.education.state.pa.us> (from the menu on the left hand side select "Programs," "O to R," "Pennsylvania System of School Assessment," "Item and Scoring Samplers").

- **Below Basic** – seldom demonstrates grade-level appropriate concepts/skills for a particular subject/task.
- **Basic** – at times demonstrates some grade-level appropriate concepts/skills for a particular subject/task.
- **Proficient** – routinely demonstrates a variety of grade-level appropriate concepts/skills for a particular subject/task.
- **Advanced** – consistently demonstrates an in-depth understanding of the grade-level appropriate concepts/skills and uses sophisticated strategies to solve a task.

Helpful Hints for Parents: How to Help Your Child Improve on PSSA

The most important way to help improve your child's academic performance is to be supportive and reflect a positive outlook about test-taking and school in general. Negative outlooks can sometimes be transferred to children and could inadvertently affect academic performance.

There are many ways you can help your child perform better on standardized tests. Remember, test preparation is a long-term, ongoing activity that can easily be part of everyday life.

Daily activities to help prepare your child to take a test:

- Discuss your child's academic performance with him or her – ask your child, "How are you doing in school?"
- Encourage your child to ask questions about the things he or she does not understand – there is no such thing as a stupid question!
- Show interest in your child's school and homework, checking to make sure it is complete. Homework can be an indicator of weak skills and a time to improve them.
- Provide a quiet and comfortable study place for your child.
- Communicate with your child's teacher.
- Encourage your child to make a commitment to do well in school and set goals. Support the commitment.



Math tips:

- **Discuss the types of jobs that use math skills.** Children often ask, "Why do I have to learn algebra?" It's important for them to realize that math is an important part of everyone's life. Carpenters and builders use mathematical equations to make sure buildings are square, and carpet and floor layers use math to determine the amount of flooring space and necessary materials. A store clerk needs to know math to determine how much change to give customers or how many supplies to buy. There are countless jobs that rely on math.
- **Talk math.** You'd be surprised at the many opportunities available. For example, at the grocery store, ask your child which item costs less. Many stores advertise discounts with a percentage off. Ask your child what the sale price is if the item is 30% off.
- **Talk money.** Many children receive an allowance. If your child does, ask him or her how much the allowance would be next year with a 5% increase. Talk with your teens about ways to save money for college, a car or other major purchase items. Discuss your daily expenses like rent, mortgage, utilities, car payments, groceries and clothes. Your child can make a chart and discuss ways to save money in each area.
- **Bake a cake.** Baking incorporates math concepts like measurement, volume and time. Kids need to know how to measure ingredients using the proper measurement tool, determine the size of the baking dish and decide which bowl will hold all of the ingredients. It's also important to know how long to bake!
- **Practice using a calculator.** Many standardized tests, including different sections of the PSSA, allow the use of calculators. Encourage your child to practice with the calculator before the test. ▶▶▶

Helpful Hints for Parents: How to Help Your Child Improve on PSSA (continued)

Other tips:

- **Car travel.** Car rides are a great opportunity for children to improve reading and math skills. The best part is that they won't know they are "learning" and it can help make the time fly by! Have children call out the different license plates they see, and keep a written tally. They can chart the results and calculate the percentages, create bar graphs or draw pie charts. There are also many new words to learn while traveling. Billboards and road signs can often introduce children to new words – work with your child on pronunciation and definition. Every journey, trip or vacation, regardless of distance, introduces new ideas and objects your child can use to enlarge his or her vocabulary.
- **Flashcards.** There are plenty of colorful, ready-made flashcards on the market, or you can get creative and make your own. Your child's teacher can provide you with an age-appropriate word list and all you need are 3" x 5" index cards. You can include math vocabulary terms such as "triangle – a figure with 3 sides" or math problems " $4 + 8 = 12$ ". Work with your child and his or her teacher to develop a list of words or math problems that are challenging. Seeing, saying and learning new words and ideas are important for children of all ages and grade levels.

Reading tips:

Research supports the fact that children who are read to at home perform better in school. Reading is a learned behavior – not just a basic skill.

- **Read with your child.** It's never too early to start reading together, and you can never read too much. Reading nurtures young children and develops an interest in language, words and communication. No



matter your child's age, consider reading one book together every month, and use it as a springboard for conversations. As this activity becomes a routine, it will help develop your child's reading skills.

- **Encourage your child to build their own library.** Children love to collect stuffed animals, comic books, autographs and baseball cards, so why not promote collecting books! A personal library will introduce your child to a world of resources. If possible, include a visit to a local bookstore during a shopping trip.
 - **Provide your child with magazines about their individual interests.** Magazines are available for children of all ages and all areas of interest. Younger children can learn basic skills from magazines, and older children can read about current events and get other information. Talk to your child about the magazines and articles they read.
 - **Visit your local library.** There are nearly 440 public libraries in Pennsylvania that have individuals on staff who are experts in children's literature and are willing to share titles and project ideas. The best part about a library – you can borrow books for free!
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Helpful Hints for Parents: How to Help Your Child Improve on PSSA (continued)

Test preparation:

- **Cramming the night before the test is not an effective way to study.** Studying for tests should be done days, or even weeks, in advance. Your child should simply review test materials the evening before the test. Do all you can to ensure your child relaxes and eats a healthy dinner the night before the test as well. Start the test day off with a nutritious breakfast. Children who are tired are less able to cope with the strain of a test and may perform poorly.
- **Do not put added pressure on your child.** By placing too much emphasis on your child's test scores, he or she might be more likely to fear failure and more likely to become anxious when taking the test – increasing the chances for mistakes. Relieve your and your child's test-taking anxiety by presenting a positive outlook. Your child will sense your optimism and have increased self-confidence.

Frequently Asked Questions

Q: What is PSSA?

- PSSA stands for Pennsylvania System of School Assessment – a statewide assessment in mathematics, reading, writing and science administered each year in all Pennsylvania school districts and charter schools to measure students' achievement of Pennsylvania's Academic Standards.

Q: What is the purpose of the PSSA?

- Provide students, parents, educators and citizens with an understanding of students' and schools' performance.
- Determine the degree to which school programs enable students to attain proficiency in academic standards.

Q: Who must take the assessment?

Except for a very few students who meet specific criteria for participation in an alternate assessment, all students are included in the assessments as outlined below:

- Reading and Mathematics – Grades 3, 4, 5, 6, 7, 8 and 11
- Writing – Grades 5, 8 and 11
- Science – Grades 4, 8 and 11

Q: How long do the assessments take?

- The entire reading and mathematics assessments take approximately six to seven hours to complete. Completing the entire writing assessment takes approximately four to six hours. The science assessment takes two to four hours.
- Normally assessments are administered over several days. Your school should inform you about the assessment schedule.

Q: What can parents do to make sure their child is ready on the day of the test?

- Mark down test days on your calendar so you and your child are both aware of testing dates.
- Make sure that your child is in school during the testing. Do not plan any doctor, dental or other appointments on test dates.
- Don't be overly anxious about test scores, but encourage your child to take the test seriously.
- Let your child relax for a few hours before bedtime and make sure that your child gets enough sleep on the night before the test.
- Ensure that your child eats a healthy breakfast and avoids heavy foods the morning of the test.
- Encourage your child to listen carefully to test directions and ask questions when unclear.
- Calm your child by encouraging him/her to try their best on the test.

Test-Taking Tips for Students

- **Keep up with class assignments and homework.** Your schoolwork will help prepare you for tests.
- Get **plenty of sleep** the night before the test.
- Eat a **healthy breakfast** the day of the test.
- Bring a book or something to read quietly in case you finish the test early.
- During the test, **read the directions carefully.** If you don't understand the directions, raise your hand and **ask your teacher** to explain them.
- If you come across a question that you can't answer, **skip the question and go back later to answer it.** You can also make a guess by eliminating any answers that you think are incorrect.
- Reread questions and answers. Go back to the text to find the correct answer.
- **Read each possible answer choice before choosing your final answer.**
- **Look over your answers to make sure you filled in the correct choices.**
- When you finish the test, look through its pages to make sure you answered all of the questions.
- At the end of the test, do something quiet. Remember, some of your classmates might still be taking the test.
- **Don't worry! Just do your best.**

Strategies for Answering Multiple Choice Questions

- **Read each question carefully.** Don't assume you know the answer before you understand what is being asked.
- **Each multiple choice question** (in any subject area – Reading, Mathematics, Writing or Science) is worth **one point.**
- If you don't know the answer to a multiple choice question, use the process of elimination outlined below.
- If you are stuck on a question, move on and return to it later.
- **Take your time and answer all questions. No response is the same as an incorrect response.**

Process of Elimination – Where to Start When You Are Not Sure

The eliminating strategy is a helpful strategy for answering multiple choice questions.

Before looking at the answer choices, try to predict what the correct answer is. When you have difficulty making a prediction, use the eliminating strategy to eliminate wrong answers.

As choices are eliminated, the odds of finding the correct answer increase dramatically. That's how familiarity with different types of wrong answers listed below can help you improve your performance on tests.

The types of wrong answer choices include:

- **Extreme Language Choices**
Eliminate answers that use extreme language (never, always, none, all, best and worst), extreme emotions or passionate reactions.
- **Narrow/Broad Choices**
Some choices refer to one section, not the whole passage, while other choices ▶▶▶

include information that is too broad or general. Eliminate answers that are too broad or too narrow.

- **Accurate, but ... Choices**

Some choices include information that is accurate, but does not answer the question posed. Eliminate choices that are true but do not answer the question.

- **Contradictory Choices**

Eliminate the choices that contradict the passage. Only choose an answer like this if the word "NOT" or "EXCEPT" is in the question.

Reading Assessment

- Reading assessment addresses two major categories of skills involved in the processing of written language: 1) reading and comprehension skills and 2) the ability to analyze and interpret what we read.
- During the reading assessment, students are given a number of passages from fictional and nonfictional genres and are asked to respond to questions about these passages. By answering the questions, students indicate both their comprehension and reading skills, and their analysis and interpretation of fictional and nonfictional texts.

Reading Target Passage Types by Grade

Grade 3 Target Passage Types

- 2 Stories
- 1 Poem
- 1 Informational Text
- 1 Autobiography/Biography or
1 Practical/How-to/Advertisement Text

Grade 4 - 8 and 11 Target Passage Types

(mix varies by grade)

- Story (all grades)
- Poem (all grades)
- Informational Text* (all grades)

- Autobiography/Biography (all grades)
- Practical/How-to/Advertisement Text
- Essay/Editorial (grades 5, 6, 7, 8, and 11)
* *Informational text may include a web page format for grades 6 - 8 and 11.*

Open Ended Questions – Reading

PSSA open-ended items for Reading ask students to organize their responses in a **short, concise manner, focusing on the meaning of the texts** (e.g., summarize, identify, explain and analyze).

Remember that **reading assessment DOES NOT assess students' writing skills.**

Strategies for Answering Open-Ended Questions (Constructed Response)

- **Read** the constructed response or “essay” question **before** you start reading **the passage**.
- **Read the question carefully.** Pay special attention to bulleted reminders.
- **Highlight or underline things you are asked to do**, statements like:
 - Explain the main idea
 - Describe the character
 - Use 3 examples from the passage
- **Keep** the constructed response **prompt in the back of your mind** while you are reading.
- During reading, **mark places in the passage** that you could use in your response.
- **Use the words from the prompt to form your topic sentence.**
- **Answer all parts of the question.**
- Include **details from the passage.**
- Make a personal connection by including your own ideas.
- **Write neatly and clearly.** Use only the space provided.
- Convince your audience that you comprehend the passage.



CUCC Strategy for Reading Directions

C = Circle (highlight) the direction words (action verbs).

Examples: *read, write, list, support, justify*

U = Underline key words after the direction words.

Key words answer questions:
how, what, where

C = Count the number of direction words (1, 2, 3 ...)

C = Check off each item as you complete it. (✓)

EXAMPLE of CUCC Strategy

1✓ Read the story. 2✓ Explain the mood created by the author. 3✓ Use examples from the story to show how the author creates the mood.



TAG IT A "3" Strategy for Open Ended Questions

Turn the question into a statement (1)

Answer the question (2)

Give details, evidence and examples from the text to support your answer (3)

EXAMPLE of TAG Strategy

Give a word or phrase that describes both the student and the school representative. Use at least one example from each editorial to explain your response.

The word that I would use to describe both the student and the school representative is logical. An example of the student being logical is that he said that cell phones are needed for safety. A parent might need to get in touch with a child in an emergency.

The school representative is also logical when he says that cell phones ringing in class will cause disruption since kids will forget to turn them off.

ANALYSIS

- ✓ In the response the student uses words from the prompt to form the topic sentence.
- ✓ The student exactly follows directions given in the prompt.
- ✓ The student provides examples from the text to illustrate her point.

General Scoring Guidelines for Constructed Response Reading Items

3 Points

- The response provides a complete answer to the task, e.g., a statement that offers a correct answer as well as text-based support.
- The response provides specific, appropriate and accurate details (e.g., naming, describing, explaining or comparing) or examples.

2 Points

- The response provides a partial answer to the task, e.g., indicates some awareness of the task and at least one text-based detail.
- The response attempts to provide sufficient, appropriate details (e.g., naming, describing, explaining or comparing) or examples; may contain minor inaccuracies.

1 Point

- The response provides an incomplete answer to the task, e.g., indicating either a misunderstanding of the task or no text-based details.
- The response provides insufficient or inappropriate details or examples that have a major effect on accuracy.

0 Points

- The response is inaccurate in all aspects.
- The response provides insufficient material for scoring.

Mathematics Assessment

What Is on the Test?

There are five Mathematics categories tested on the PSSA in all grades 3-8 and 11:

- ▶ A. Numbers and Operations
- ▶ B. Measurement
- ▶ C. Geometry
- ▶ D. Algebra
- ▶ E. Data Analysis and Statistics

You can find sample math problems and solutions for each grade in the Mathematics Item and Scoring Samplers. Please refer to the "Test Preparation Web Resources" on p. 14 for step-by-step directions.

Math Strategies

Read each question very carefully and answer EXACTLY what is being asked.

ORDER OF OPERATIONS

Please () **Parenthesis**
*(Or other grouping symbols.
Start from the inner most ()'s)*

Excuse Y^x **Exponents**

My x **Multiplication** }
Dear / **Division** }

*(Division or multiplication
in any order.)*

Aunt + **Addition** }
Sally - **Subtraction** }

*(Addition or subtraction
in any order.)*

CRACKING THE MATH CODE

Use Vocabulary Clues to Help You Decide Which Operation to Use

ADDITION	SUBTRACTION
add	are not
altogether	change
and	decreased by
both	difference
how many	fewer
how much	have left
in all	how many didn't
increased by	how many more
more	how much more
plus	less than
sum	remains
together	subtract
total	take away
DIVISION	MULTIPLICATION
cut into	altogether
divided by	by
each group has	double
half / equal parts	each
quotient of	multiplied by
separated	product of
share equally	times
split	

MATH PROBLEM SOLVING TECHNIQUES

- Act out the problem, visualize or use objects
- Draw a picture or diagram
- Make a table or chart
- Make a list
- Guess and check
- Work backwards
- Look for a pattern
- Make it simpler
- Brainstorm

Open Ended Questions – Mathematics

Examples of how open ended items might be phrased:

- Show or explain all your work.
- Show all your work. Explain why you did each step.
- Explain why something is true or false.
- Describe how doing something affects something else.
- Describe how to solve a problem.



TWO COLUMN MATHEMATICS

Strategy for Answering Open Ended Mathematical Questions

1. Read the problem
2. Divide your paper into 2 columns
 - ▶ Label the left column "Work"
 - ▶ Label the right column "Explanation"
3. Number each step of your mathematical work and the corresponding explanation
4. Work across the page
 - ▶ Work step one, write the explanation.
 - ▶ Work the next step, etc.
5. Avoid using numbers in the explanation column
6. Write an answer statement

Adapted by Jeffrey Kodroff © 2003

General Scoring Guidelines for Constructed Response Mathematics Items

4 Points

The response demonstrates a thorough understanding of the mathematical concepts and procedures required by the task.

- The response provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor "blemish" (e.g., missing \$) or omission in work or explanation that does not detract from demonstrating a thorough understanding.

3 Points

The response demonstrates a general understanding of the mathematical concepts and procedures required by the task.

- The response and explanation, as required by the task, are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a general understanding.

2 Points

The response demonstrates a partial understanding of the mathematical concepts and procedures required by the task.

- The response is somewhat correct with partial understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

1 Point

The response demonstrates minimal understanding of the mathematical concepts and procedures as required by the task.

0 Points

The response has no correct answer and insufficient evidence to demonstrate any understanding of the mathematical concepts and procedures as required by the task for that grade level.

- Response may show only information copied from the question.



UNDERSTANDING MATHEMATICAL OPERATIONS

Addition

We use addition when we put different quantities together. Think about it as adding items to a pile. Each time we add another item or several items, we use addition.

Imagine, we have 3 children who brought books to school to donate them to the classroom library. Mary brought 5 books, John brought 2 books and Jeremiah brought 8 books. How can we find out how many books our library got? We need to add all those numbers up: $5+2+8=15$.

Subtraction

We use subtraction when we take something away. Each time we take away an item or a number of items, we subtract.

Now, our classroom library has 15 books. We had two students who borrowed the books. Lisa borrowed 3 books and Aaron borrowed 2 books. How many books do we have now? We need to subtract the books that were taken: $15-3-2=10$

Multiplication

We use multiplication when we add the same number of items several times.

For example, instead of bringing a different number of books, all our kids brought the same number: Mary brought 5 books, John brought 5 books and Jeremiah brought 5 books. How many books did our library get in this case? To answer this question, we could add five three times ($5+5+5$) or we could multiply five by the number of times we have added the same quantity (5×3). The answer is still 15.

Division

Division also relates to a situation when the same quantity is added to itself multiple times, except now we know the outcome

(product). We also either know how many times the addition was performed and we need to learn how many items we had to add each time or we know how many items were added and we need to know how many times we had to add them.

For example, let's imagine we want to get 15 books for our class library, but we only have 3 students who are willing to donate books. We don't want to be unfair, so we decide we want each of them to donate the same number of books. How do we know how many books each student needs to bring? We need to divide 15 into 3 equal parts: $15 / 3 = 5$.

Alternatively, we could have decided that a donation of 5 books would give a student a chance to participate in a raffle. Now we want to determine a number of students who need to participate in order for us to reach our goal of 15 books: $15 / 5 = 3$.

Fractions

A good way to look at fractions is to imagine cutting a cake into equal pieces and then taking some of these pieces. We can cut a cake into 8 pieces and take 3. This will be $3/8$ and we'll still have 5 pieces left ($5/8$). The same thing happens with flour, water, apple juice or any matter you can imagine. We can divide it into equal portions (any number of portions we want) and then take as many as we need.

Remember, we can also cut more than one cake, so if we have $10/8$ it means we have an entire cake and also 2 more pieces.

Decimals

The only difference between fractions and decimals is the number of pieces we are cutting our cake into. If the number of pieces is a multiple of 10, we have a decimal. In

case of decimals we can only cut our cake in 10 pieces, and then cut each piece in another 10 pieces, and so on. So we can have 10 pieces, 100 pieces, 1000 pieces and so on. Since we are using a decimal number system, it is very convenient for us to deal with decimals.

The decimal system allows us to easily convert our $\frac{3}{8}$ of a cake into the decimal fraction: we just need to divide 3 by 8 and we'll get 0.375. It means that if we were only allowed to apply the decimal system to cutting our cake, we would have to cut it into a 1000 pieces and get 375 to get our $\frac{3}{8}$. We can also convert 0.375 to a regular fraction by simplifying the fraction $\frac{375}{1000}$. (To simplify a fraction, we can divide the top (numerator) and the bottom (denominator) by the same exact number. Try 125.)

Percents

Percent (1%) is a special term for $\frac{1}{100}$ or 0.01. Accordingly, 5% is 0.05 and 10% is 0.10 or simply 0.1.

Exponentiation / Raising to the Nth Power

In the same way as adding the same number multiple times can be substituted by multiplication, multiplying the same number many times by itself can be substituted by exponentiation – raising this number (the base) into a certain power (exponent). The exponent is the number of times we need to perform multiplication. Say we have 5 students bringing 5 boxes with 5 books each, we have $5 \times 5 \times 5$ books or 5^3 books (read "5 raised to the third power" or "5 raised to the power of 3").

A great example of exponentiation is interest rates. Imagine we invest at a 5% interest rate. Each year our investment will increase by 5%, so in one year we will have 105% (or 1.05) of the amount we invested. In two years we will have 1.05×1.05 times the original amount. Say we invest \$100. In two years we'll have 100×1.05^2 , in three years 100×1.05^3 and so on.

Root

We always have reciprocal operations in mathematics. We have addition and subtraction, multiplication and division. In the same way we have exponentiation, roots and logarithms.

If we multiplied some number by itself multiple times, and we know how many times we did it and what the result was, we can always find that number. All we need is to take the Nth root, where N is the number of times we performed multiplication.

Imagine you have won a \$250 in a lottery. You think about investing it until you retire and then going on a dream vacation. You believe you'll need \$1,000 to pay for your vacation. It means that in 20 years your \$250 will need to grow 4 times ($\frac{\$1,000}{\$250}$). How can we find out what interest rate will get us to this 4 times increase in 20 years? Very easy: your child's scientific calculator will get you the rate. Press 20 root ($\sqrt[x]{}$) and 4 to find $\sqrt[20]{4}$ (pronounced as twentieth root of four). The answer will be around 1.07. Yes, we need to get at least 7% return on our investment!

Another way to write $\sqrt[20]{4}$ is $4^{\frac{1}{20}}$ or $4^{0.05}$. This means you can use exponentiation (^ button on the calculator) to perform this calculation.

Logarithms

Logarithm is another reciprocal operation for exponentiation. This time we need to find the exponent or how many times we need to multiply the number (base) by itself to get the given result.

Imagine we still have our \$250 and we are determined to turn it into a \$1,000 over the years, but we can only get 5% return on safe investments. How many years will it take us to get to our goal? Again, we are looking for a 4-fold increase ($\frac{\$1,000}{\$250}$). The answer is $\log_{1.05}(4)$ or 28.4 years. (Many calculators will only have natural logarithms, or logarithms with the base of 10. To solve our problem we can substitute $\log_{1.05}(4)$ by $\log_{10}(4) / \log_{10}(1.05)$.)

Writing Assessment

The writing assessment consists of twenty multiple-choice revising and editing questions and three writing prompts.

Written responses to the writing prompts are evaluated from the standpoint of effective application of focus, content development, organization, and style.

The system also includes a conventions scoring guideline which addresses the

student's use of conventions (sentence formation, grammar, usage, spelling, and punctuation). Composition and conventions are scored separately on 4-point scales to indicate the writer's level of proficiency.

You can find sample questions and correct responses for each grade in the Writing Item and Scoring Samplers. Please refer to the "Test Preparation Web Resources" on p. 14 for step-by-step directions.

Writing Assessment Scoring Guidelines

	Focus	Content	Organization	Style	Conventions
	The single controlling point made with an awareness of task (mode) about a specific topic	The presence of ideas developed through facts, examples, anecdotes, details, opinions, statistics, reasons and/or explanations	The order developed and sustained within and across paragraphs using transitional devices including introduction and conclusions.	The choice, use and arrangement of words and sentence structures that create tone and voice	The use of grammar, mechanics, spelling, usage and sentence formation.
4	Sharp, distinct controlling point made about a single topic with evident awareness of task (mode)	Substantial, specific and/or illustrative content demonstrating strong development and sophisticated ideas	Sophisticated arrangement of content with evident and/or subtle transitions	Precise, illustrative use of a variety of words and sentence structures to create consistent writer's voice and tone appropriate to audience	Evident control of grammar, mechanics, spelling, usage and sentence formation
3	Apparent point made about a single topic with sufficient awareness of task (mode)	Sufficiently developed content with adequate elaboration or explanation	Functional arrangement of content that sustains a logical order with some evidence of transitions	Generic use of a variety of words and sentence structures that may or may not create writer's voice and tone appropriate to audience	Sufficient control of grammar, mechanics, spelling, usage and sentence formation
2	No apparent point but evidence of a specific topic	Limited content with inadequate elaboration or explanation	Confused or inconsistent arrangement of content with or without attempts at transitions	Limited word choice and control of sentence structures that inhibit voice and tone	Limited control of grammar, mechanics, spelling, usage and sentence formation

1	Minimal evidence of a topic	Superficial and/or minimal content	Minimal control of content arrangement	Minimal variety in word choice and minimal control of sentence structures	Minimal control of grammar, mechanics, spelling, usage and sentence formation
0	Non-Scorable <ul style="list-style-type: none"> ✓ Is illegible; i.e., includes so many indecipherable words that no sense can be made of the response ✓ Is incoherent; i.e., words are legible but syntax is so garbled that response makes no sense ✓ Is insufficient; i.e., does not include enough to assess domains adequately ✓ Is a blank paper 			Off-Prompt <ul style="list-style-type: none"> ✓ Is readable but did not respond to prompt 	

Science Assessment

The science assessment addresses the four major reporting categories:

- The Nature of Science,
- Biological Sciences,
- Physical Sciences, and
- Earth and Space Sciences.

The proportion of items devoted to each reporting category varies within a grade level. Each reporting category includes Assessment Anchors and Eligible Content available from the Department of Education web site.

- ▶ Go to <http://www.education.state.pa.us>
- ▶ From the menu on the left hand side select "Programs"
- ▶ Click on "Programs O-R"
- ▶ Click "Pennsylvania System of School Assessment (PSSA)"
- ▶ Select "Assessment Anchors"

Apart from open-ended and multiple choice questions in grades 8 and 11, the science assessment also includes science scenarios.

A science scenario contains text, graphics, charts and/or tables, and uses these elements



to describe the results of a class project, an experiment or other similar research. Students use the information found in a science scenario to answer both multiple-choice and open-ended questions.

In science, all scores are based on content only. Spelling and punctuation are not included as part of the scoring process.

You can find sample questions and correct responses for each grade in the Science Item and Scoring Samplers. Please refer to the "Test Preparation Web Resources" on p. 14 for step-by-step directions.

Test Preparation Web Resources

Pennsylvania Department of Education Items and Scoring Samplers

- Mathematics, Reading, Science and Writing Practice
- Sample multiple choice questions
- Sample open-ended questions
- Glossaries

- ▶ Go to www.education.state.pa.us
- ▶ From the menu on the left hand side select "Programs"
- ▶ Click on "Programs O-R"
- ▶ Click "Pennsylvania System of School Assessment (PSSA)"
- ▶ Select "Items and Scoring Samplers"

This is a snapshot of the "Items and Scoring Samplers" web page.

The screenshot shows a web browser window with the URL [http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania_system_of_school_assessment_\(pssa\)/8757/res](http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania_system_of_school_assessment_(pssa)/8757/res). The page header includes the Pennsylvania Department of Education logo and navigation links for PA State Agencies, Online Services, and a search bar. A breadcrumb trail reads: Home >> Programs >> Programs O-R >> Pennsylvania System of School Assessment (PSSA) >> Resource Materials. The main content area is titled "Resource Materials" and features a section for "Getting Ready" 2012. This section lists several resources: a 2011-2012 Assessment Handbook (PDF) updated in October 2011, a webinar recording from October 2011, and two PowerPoint presentations for the 2012 State Assessments. Below this, there is a notice about PSSA-M resources, including a link to "PSSA-M: Assigning Students to the Test and Understanding Participation" (PDF). A prominent heading reads "New for 2011 2012 PSSA Braille Item Samplers" with a note that no new samplers were released for the 2012-2013 school year. The text explains that Braille PSSA Item Samplers are available in contracted Braille format and that tactile graphics are available in PDF format for local embossing. A sidebar on the left contains a "PDE Search" box, a "Log In" section, and a menu with categories like "Department Information", "Newsroom", and "Programs".

Here you can select the subject and grade level you are interested in and download a PDF file. Each file contains sample questions with explanations.

A.1.3.1

2. Leonard started writing factors of the number 9 below, but did not finish.

1, 3, —

Which factor of 9 is missing?

- A 4
- B 5
- C 6
- D 9 *

A	B	C	D
4%	26%	19%	51%

A.1.3.2

3. Which shows only multiples of 3?

- A 43, 53, 63
- B 49, 56, 63
- C 43, 46, 49
- D 61, 63, 66 *

A	B	C	D
14%	7%	21%	58%

A.2.1.1

4. A baker uses 2 cups of wheat flour and 4 cups of white flour to bake a loaf of bread. How much flour in all will the baker use to bake 5 loaves of bread?

- A 10 cups
- B 20 cups
- C 30 cups *
- D 40 cups

A	B	C	D
15%	15%	54%	16%

A.2.1.2

5. Tim bought 2 paintbrushes that each cost \$2.55. He also bought 1 bucket that cost \$1.60. How much did Tim pay in all?

- A \$3.50
- B \$4.15
- C \$6.15
- D \$6.70 *

A	B	C	D
2%	36%	4%	57%

Web Resources (continued)

FamilyNet

- Access your child's up-to-date progress data, attendance, grades and standardized test scores
 - Instructional resources – textbooks, online tutorials and more
- ▶ Go to www.philasd.org
- ▶ On the green box for parents click the "FamilyNet" link
- ▶ If you don't have a FamilyNet account, you can easily create one by clicking "Register for an Account"

Other Resources

BBC Learning

www.bbc.co.uk/schools/students

- Video clips, activities and resources in a number of school subjects

Everyday Math – Parent Connection

<http://everydaymath.uchicago.edu>

- Content, routines and algorithms
- ▶ Click on "Tips and Activities"

First in Math

www.firstinmath.com

- Online Math Practice
- ▶ Your child can get a password from the teacher

ImagineIt

www.imagineitreading.com

- Reading resources for grades K-6

Math Forum @ Drexel

<http://mathforum.org>

- Concept help
- Glossary
- Ask Dr. Math

Mifflin County District Curriculum Links

http://www.mcsdk12.org/curr/standardized_test_preparation.htm

- Practice tests

myTestBook.com

www.mytestbook.com

- Practice answering math, reading and science questions

SpellingCity

www.spellingcity.com

- Spelling and vocabulary resources

Starfall

www.starfall.com

- Reading – early grades

www.abclearningtime.com

www.abclearningtime.com

- Early literacy: games, puzzles and worksheets with a focus on writing

StudyStack

www.studystack.com

- Fun games for vocabulary practice (crossword puzzles, flash cards, scrabble and more)
- ▶ In the search box on the front page type "PSSA," then select the grade and subject to practice from the list returned.

University of Missouri eThemes

<http://ethemes.missouri.edu>

- Resources for all subject areas

TLSBooks

www.tlsbooks.com

- Practice worksheets in all school subjects for elementary students (answer keys provided).

Parent Information and Workshops

Many Philadelphia schools conduct monthly parent workshops to help parents with a variety of school-related subjects, including understanding core curriculum and preparing for PSSA. Please call your school to find out about parent workshops, as well as other parent programs and opportunities for parents to get involved offered by your school.

**Help Make Your School Better – Become
a Member of School Advisory Council!**

School Advisory Councils

SACs

*Imagine Parents and Schools Working
Together for Student Success*

School Advisory Councils (or SACs) are part of the overall leadership structure at each school. Providing a forum for open discussion and problem-solving related to student achievement, SACs give all stakeholder groups (administrators, parents, students, staff, and the larger community) a real voice in school-based decision-making and the power to influence all aspects of the work of the school. SACs promote collaboration and understanding and build support for the school's overall goals as well as individual programs, policies, and initiatives.

School Advisory Councils are comprised of peer-elected representatives from various stakeholder groups at the school, whose main responsibility is to collaborate with the principal on specific matters that affect student achievement and school improvement. Their primary role is to participate in the decision-making process to ensure that the needs of all students are specifically addressed in the school Action Plan and Budget—the two key documents which set the overall education plan for the school.

Recent research suggests that when properly executed, consultative planning contributes to improved school culture and a strong professional learning community. In addition, effective decision-making supports improved classroom practice and student learning.

Extensive research on Chicago Local School Councils has shown that School Advisory Councils positively impact student achievement. There is a strong correlation between schools with effective school councils and those with substantially improved test scores. In addition, studies have found that School Advisory Councils increase accountability and encourage all parents to become more involved in their community.

To learn more about SACs, to get an application or to request help in setting up a SAC at your school, visit our web page at www.philasd.org/sac, e-mail sac@philasd.org or call 215-400-4180 (option 1).

Preparing for **PSSA** Parent Handbook for Student Success

Project Idea & Oversight

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SPECIAL ACKNOWLEDGEMENTS

Rasheeda Boatright,
Teacher at Samuel B. Huey
Elementary School

*for help in creating and
updating this booklet*

Melissa Chizmadia,
Instructional Support Officer,
Academic Division 9

*for sharing instructional
materials and resources used in
this booklet*

*Imagine
2014*



Parents Are Our Partners
THE SCHOOL DISTRICT OF PHILADELPHIA

The School District of Philadelphia's Parent University is directly aligned with the Imagine 2014 Strategic Plan. Research shows that when families are involved in learning, they will play an active role in educational processes.

Parent University will engage parents in innovative and meaningful partnerships for learning. This increase in parental engagement will positively contribute to the child's academic and social success. By offering workshops and classes, Parent University will develop strong professional learning communities to increase student achievement. By partnering with internal District departments, academic institutions, and community and faith-based organizations, Parent University will equip families with additional skills, knowledge and resources.

The goals of Parent University are to:

- Provide parents with evidence-based knowledge, skills and resources to support their children's education and increase student achievement
- Support parents in navigating educational processes to build social capital
- Empower and engage parents through education to support and strengthen families
- Improve collaboration between schools and families
- Increase the percentage of parents who agree that their child's school engages parents effectively and values their input
- Increase the percentage of families who feel they have access to quality school programs
- Increase the percentage of families who grade their school as A or B on the District annual survey
- Provide opportunities and support for parents to achieve their personal academic and non-academic goals
- Promote networking and connection among families and schools.

Please go to www.philasd-parentuniversity.org/ or call 215-400-8180 to learn more about the classes we offer to support our parents.

Parents are Our Partners

SCHOOL REFORM COMMISSION

Chairman

Pedro A. Ramos

Commissioners:

Feather Houstoun

Lorene Cary

Joseph A. Dworetzky

Wendell E. Pritchett



THE SCHOOL DISTRICT OF PHILADELPHIA

Acting Superintendent and Chief Recovery Officer

Tom Knudsen

Chief Academic Officer

Penny Nixon

Deputy Chief Parent, Family, Community Engagement and Faith-Based Partnerships

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