



National Kid Zone Toolkit



Regional / National Program
Implementation Toolkit

REVISED September 2008



National Kid Zone Program Information

PURPOSE: The purpose of the Kid Zone Conference is to increase at-risk students in grades 3-5 interest in Science, Technology, Engineering careers to allow them to excel academically and succeed in college.

INTRODUCTION TO KID ZONE CONFERENCE

THE KID ZONE CONFERENCE is a PROGRAM

Kid Zone Conference is a conference specifically targeted toward at-risk Black students in grades 3 through 5. It is designed to help prepare them for academic challenges in the areas of science, technology, engineering and math. It is hoped that through this program the students will gain an interest in these subjects that allows them to excel academically in their current grade level, and pave the way for future successes in secondary and post-secondary education. The activities are designed to enhance the critical thinking skills of the students and to engage them in the scientific process.

Kid Zone Conference Goals

KZC aims to

- Develop a positive attitude for at-risk Black students towards academic excellence
- Develop a positive attitude towards self
- Stimulate enthusiasm about engineering and science
- Utilize NSBE collegiate and Alumni members as role models

**CONTACTS:**

Title	Name	Email and Phone
National Alumni Pre-College Chair	Carolyn M. Boyd	pci@nsbe-ae.org (309)287.1746
National Pre-College Chairperson	Ashley Boyd	nebpci@nsbe.org
PCI Coordinator, World Headquarters	Franklin O. Moore	pci@nsbe.org 703.549.2207 ext 204
National Kid Zone Co-Coordinator	Layla Wilson Jerrod Henderson	KZone@nsbe-ae.org
Region I Alumni PCI Chairperson /TMAL Coordinator	Kamona Ayres	r1ae_tmal@yahoo.com
Region II Alumni PCI Chairperson	Quentin Washington	region2aepci@gmail.com
Region III Alumni PCI Chairperson	Sharon Douglas	r3ae.pcichair@gmail.com
Region IV Alumni PCI Chairperson	Catherine Carney	catherine.boyd@yahoo.com
Region V Alumni PCI Chairperson	Chrystal Tyler	r5aepcichair@board.nsbe.org
Region VI Alumni PCI Chairperson	Tameka Barrentine	r6aepci@board.nsbe.org
Region I PCI Chairperson	Tia Mone't Johnson	r1pcichair@board.nsbe.org
Region II PCI Chairperson	Elana Cooper	region2pci@gmail.com
Region III PCI Chairperson	Jeremy Magruder	region3pcichair@gmail.com
Region IV PCI Chairperson	Teresa Briggs	r4pcichair@board.nsbe.org
Region V PCI Chairperson	Whitney Pollard	r5pcichair@gmail.com
Region VI PCI Chairperson	Leann Perry	r6pcichair@yahoo.com
National Convention Planning Committee PCI Chair	Jasmine Wall	jwall@nsbecpc.org



Summer Engineering Experience for Kids (SEEK)

The mission of SEEK Camp is "to increase elementary school students' aptitude in math and science and their early interest in pursuing STEM (science, technology, engineering, math) career fields, by having them engage in interactive, team-based engineering projects.

Seek is funded by a \$1 million donation to NSBE from the Battelle Foundation

NSBE, with a membership of more than 25,000, is one of the nation's largest student-managed organizations. The organization created SEEK to address the under representation of blacks in STEM fields and the underachievement of black students in K–12 classrooms. Only about 5 percent of U.S. students receiving bachelor's degrees in engineering in recent years have been black, and only about half of black students in many U.S. cities graduate from high school on time.

The three-week SEEK Camp takes place during the summer months. It is led by NSBE members — black engineering students dedicated to pursuing professional excellence and giving back to the community. These SEEK mentors will be trained by Society of Automotive Engineers (SAE) representatives and Dr. Grace Carroll of Carroll Consulting. The NSBE Pre-College Initiative (PCI) team developed the SEEK Camp experience using a framework based on SAE International's "A World in Motion," an interactive, standards-based curriculum emphasizing student motivation, mentoring, cultural connection and parental involvement.

For more information about SEEK, please visit www.nsbe.org. Or contact: Franklin Moore, NSBE Pre-College Initiative manager and SEEK Camp manager (703.549.2207, ext. 204, fmoore@nsbe.org)



National Kid Zone Technical Bowl Information

The objective of Kid Zone Tech Bowl is to encourage and showcase Academic Excellence and understanding of the fundamental principles various topics covered in State Achievement Tests. Program participation occurs through healthy competition in a “Jeopardy!” style game show format. Questions cover a wide variety of topics, from NSBE History, Riddles, African American Scientists and Inventors history to general math and science curricula from the State Tests. Each team consists of four (4) members 3rd – 5th graders (including at most one 5th grader) and one alternate, who represent their NSBE Chapter. **Regional Kid Zone competitions will be held at the Fall Regional Conferences** and the winning team from each region will compete for the national title at the National Convention.

ELIGIBILITY: Each participating team member must be a current, paid NSBE Jr. member, and must represent a chartered student NSBE Jr. chapter. In addition, each team member must submit an official transcript f to NSBE headquarters.

NATIONAL AWARDS: The six regional chapter team winners will represent their respective regions at the National Competition held at the National Convention. Each regional team will receive complimentary registration and a team travel stipend to attend the National Convention. The top three national teams will be awarded the following cash awards (80% team members/20% chapter):

First place	TBA
Second place	TBA
Third place	TBA

REGIONAL AWARDS: Each team member will receive a certificate of participation. Your region will provide awards to the top three regional teams. The type of award for may vary from region to region. Please consult your Regional Alumni PCI Chair for more information.

***A Portion of the Winnings will go to the Team Chapter.**

DEADLINE: OCTOBER 17, 2008 for Regions I, VI
FOR OCTOBER 10, 2008 for Regions II, V
LOCAL COMPETITON: NOVEMBER 7, 2008 for Regions III, IV

**All deadlines are two weeks before respective FRC's.*

TEAM ENTRY REQUIREMENTS: **MUST COMPLETE ONLINE ENTRY FORM FOUND ON NOL BY SEPT. 26, 2008.**



National Kid Zone Tech Bowl Study Guide

The following link will direct you to various state exam examples <http://www.edinformatics.com/testing/testing.htm>. Students can also obtain practice information from their respective schools. It is the National Alumni Programs Zone's hope that this will help students not only better prepare for the Kid Zone competition but will also improve scores on State Aptitude Examinations.

The following list of categories will be used during the Tech Bowl competition. They also correspond to sections on the practice exams. Please note that only the topics listed here will be included. Some categories will appear more than others (for instance, Mathematics or Science will appear much more often).

- MATHEMATICS
- AFRICAN AMERICAN HISTORY
- NSBE HISTORY
- EARTH SCIENCE
- ENGLISH GRAMMAR
- RIDDLES & BRAIN TEASERS

Abbreviated Rules: Team members will be given pencils and paper. No other reference materials can be used during the competition. Teams will be penalized for wrong answers. Of course, the team with the highest point total at the end of the game wins.



The following describes precisely what teams should know for the competition:

- 1) Teams should know the definition of *any* italicized or bold word in the given sections.
- 2) Teams should also know how to perform each of the tasks/skills stated below.
- 3) Equations will not be given during the question. Hence, teams should *know* the equation that is necessary to perform the tasks below.

Examples for Areas of the competition

MATHEMATICS:

- 1) Times Tables
- 2) Addition Tables
- 3) Subtraction Tables
- 4) Division Tables
- 5) Measurement (length)
- 6) Fractions

AFRICAN AMERICAN HISTORY

- 1) <http://www.blackinventor.com>
- 2) <http://www.infoplease.com/spot/bhmfirsts.html>
- 3) <http://www.swagga.com/inventors.htm>
- 4) <http://www.aaregistry.com>

NSBE HISTORY:

- 1) www.nsbe.org (all content under the about us tab)

EARTH SCIENCE:

- 1) Elements of Weather
- 2) Solar System
- 3) Geographic Features
- 4) Climate Zones
- 5) Rock Formations
- 6) Earth Structure
- 7) Seasonal Changes

ENGLISH GRAMMAR:

- 1) Parts of Speech
 - a) nouns
 - b) adjectives
 - c) adverbs
 - d) pronouns

RIDDLES AND BRAIN TEASERS:

- 1) <http://www.azkidsnet.com/JSknockjoke.htm>



National Kid Zone Technical Bowl Rules

MATCH MANAGEMENT:

Each team will be given 4 pencils and 4 notepads. NO OTHER OUTSIDE AIDS WILL BE ALLOWED. Any team caught using any other aids than the ones provided will be disqualified.

The computer will automatically choose a team to begin the bowl.

The chosen team will then select a category and point value.

The moderator will read each question. Each team will have **5** seconds **after** the question is read to buzz in if they feel they know the correct answer. Either team can buzz in before the moderator reads the entire question. In this case the moderator will stop reading the question once a team has buzzed in.

The team member who buzzes in does not have to be the team member that answers the question.

Once your team has buzzed in and the moderator recognizes your team, your team will have 15 seconds to render a correct answer. If more time is being allotted, it will be denoted on the screen. If the judges feel that that time is not adequate, they may decide to give more time for more lengthy questions.

Team members are encouraged to confer quietly prior to buzzing in as well as during the 5-second answering period.

After each answer is given, the moderator and judges will deem the answer correct or incorrect. The moderator will give verbal conformation of the results to the teams.

If there are any discrepancies between what the teams' answer is and the answer given by the software, the judges will make a decision on the matter. **All judge decisions will be final.**

If a question is answered incorrectly the points will be deducted from the team score.

If the first team to buzz – in answers the questions incorrectly or goes over the 15 second time limit, the opposing team has the option of either buzzing in within 5 seconds and taking 20 seconds to answer, or simply passing on the question.

The last team that answers the question correctly will select the next category and point value of the next question.



The match is designed to last 20 minutes. At the 20-minute point the computer will automatically forward to the final question.

At the end of 20 minutes, each team will be allowed to answer a final question. Each team will see the category first. Then the team has to write down the point value they would like to wager. . **If the team has a positive score, they can wager up double their score value or question value, whichever is higher. If the team has a negative score, the can only wager up to half the point value of the question in this case the final question is worth 500 points.** Once the wagers are given to the judges the question is displayed and each team has 20 seconds to confer and write down their answer. Once the written answers are turned into the judges, the moderator will read the correct answer.

If there is a tie after the final question a quick 10 question lightning round will be conducted and who ever wins that lightning round will win that match.

Both the computer program and a judge will keep track of each team's scores.

All notepads, calculators, pencils, and scratch paper will be collected after each match.

Competing teams will not be allowed in the competition room unless engaged in a competition match. Only non-competing chapter members of teams will be allowed to watch the competition.



PRACTICE PROBLEMS

1. Find the missing multiple:

$$4 \times 3 = 12$$

$$4 \times ? = 24$$

$$4 \times 0 = 0$$

2. What digit goes in the \square to make the problem true?

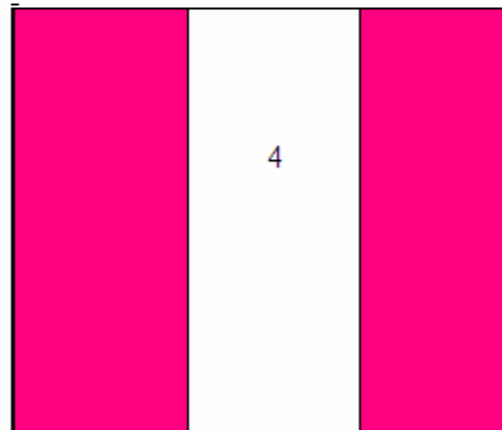
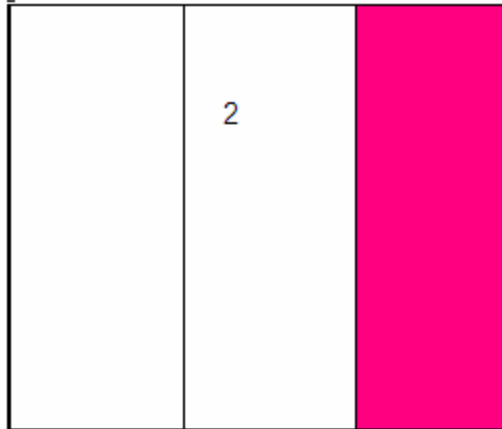
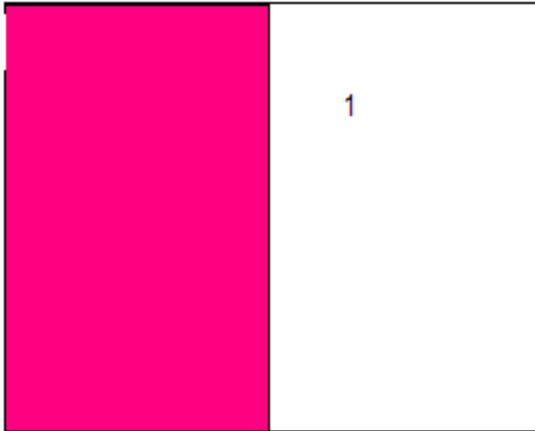
$$\begin{array}{r} 581 \\ +3\square2 \\ \hline 943 \end{array}$$

3. The fish, cat, bird are alike in many ways. One way is that they all have –

- a) legs
- b) hair
- c) lungs
- d) backbones



4. Which of these has $\frac{1}{2}$ of the figured shaded?



5. Which will be attracted to a magnet?

- a. Plastic Ruler
- b. Aluminum Foil
- c. Copper Penny
- d. Iron Nail



6. You have a dime and a dollar, you buy a dog and a collar, the dog is a dollar more than the collar, how much is the collar?

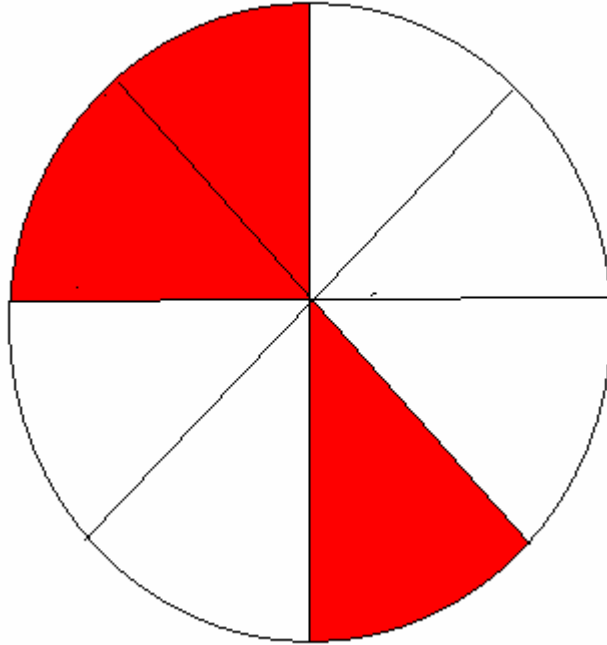
- a. \$1.00
- b. \$1.10
- c. \$1.05
- d. \$1.15

7. How can you use the letters in NEW DOOR to make one word?

8. What Vehicle is spelled the same backwards and forwards?

9. What month has 28 days?

10. A pie was cut into 8 equal pieces. Ralph ate 2 pieces and Rita ate 3 pieces.



What fractional part of the pizza did Ralph and Rita eat?

- a. $\frac{1}{8}$
- b. $\frac{6}{8} = \frac{3}{4}$
- c. $\frac{3}{8}$
- d. $\frac{5}{8}$



Answers:

- 1. 6**
- 2. 6**
- 3. d**
- 4. 1**
- 5. d**
- 6. b**
- 7. one word**
- 8. race car**
- 9. all the months**
- 10. d**



National Kid Zone Partnership Initiatives

Our alliances with these organizations are based on the common goal of each partner to prepare our youth for academic success. As a result of our partnership efforts, we confidently supply the workforce with the valued resource of diverse talented engineers and scientists.

Through our current and prospective partnerships, NSBE is able to:

- Increase it's marketing bandwidth and access to youth in our communities
- Reach the entire pipeline of individuals that support the growth of the engineering community
- Secure added membership benefits for our members
- Provide our membership with greater access to a diverse engineering and science workforce
- Align with other professional and diversity organization to promote the engineering profession and proficiency in mathematics and science
- Meet the needs of our industry and government sector support through resource sharing and program development that supports skills development for a talented workforce

We encourage you to visit our partner sites for more information on how we work together to impact our engineering and global communities!

MATH MOVES U : WWW.MATHMOVESU.COM

Raytheon's MathMovesU is an innovative program designed to engage middle school students with math at an age when their interest in the subject typically declines. Raytheon believes that tomorrow's engineers and technologists need to be excited by and interested in math today.

At MathMovesU.com, middle school students can enter a "virtual world" of math and engage with games, polls, flash cards, word problems, and factoids all centered on their passions: music, sports, and fashion. Students earn points for bragging rights and can enter sweepstakes to win prizes. The MathMovesUniversity section of the site features a glossary of math terms and a large number of hands-on worksheets for students looking for additional help and support.



MATH COUNTS : <http://mathcounts.com>

MATHCOUNTS heightens student interest in mathematics by making math achievement as challenging, exciting and prestigious as a school sport. Business and industry partners provide schools with coaches for the Mathletes® and assist in coordinating competitions. They also host local MATHCOUNTS activities, such as minority outreach programs and public awareness events to encourage participation and promote the importance of mathematics.

- MATHCOUNTS motivates and rewards students by fostering teamwork and a competitive spirit.
- MATHCOUNTS is more than a competition. It involves students and facilitators in year-long coaching sessions and helps students at all levels improve their problem-solving skills.
- MATHCOUNTS builds math skills, promotes logical thinking and sharpens students' analytical abilities.
- MATHCOUNTS introduces students to math-related careers through contacts with engineers and other professionals who serve as volunteers.
- MATHCOUNTS is educator-driven.

MATHCOUNTS provides middle school-aged students with the following benefits:

- A challenging and fun activity that helps students in their math classes.
- A chance to share common interests with new and often long-lasting friends.
- An opportunity to meet students from other schools.
- The experience of developing teamwork skills.
- A chance to compete for scholarships and prizes.
- A sense of accomplishment that comes from setting and achieving goals.
- An opportunity to explore mathematics and mathematics-related careers.
- A chance to explore a variety of math that isn't always taught in middle school classrooms.

(Strategic Partner)



Junior FIRST Lego League : <http://firstlegoleague.org>

Junior *FIRST* LEGO League (Jr.FLL) is a hands-on program designed to capture young children between the ages of 6-9's inherent curiosity and creativity and direct it toward discovering the possibilities of improving the world around them. Jr.FLL utilizes theme-based Challenges to engage kids in research, problem solving, and introductory engineering concepts. The cornerstones of the program are its [Core Values](#), which emphasize contributions of others, friendly sportsmanship, learning, and community involvement.

Each Challenge has two parts, the Poster and the Model. Working at their own pace in teams of up to 6 and guided by at least one adult coach, kids:

- Investigate the theme, according to the specific Challenge instructions
- Document how they researched and what they learned on a creative poster
- Build a model out of LEGO elements, incorporating a moving piece

The culmination of all that hard work for many teams is the participation in an event. Events for Jr.FLL are hosted, organized, and managed by the community. This means anyone is able to run an event for Jr.FLL teams, including you! The event can be similar to a science-fair type atmosphere, with the kids discussing their project with volunteers and other teams. The event experience is all about recognizing the Jr.FLL teams and celebrating their achievements. We encourage all teams to share what they have done with others, with just family or at an event.

**Kid Zone will focus on the age group between 6-12yrs old.*

(Strategic Partner)

