

WESTERN SCHOOL OF TECHNOLOGY AND ENVIRONMENTAL SCIENCE

Mechanical Construction/Plumbing

Mechanical Construction/Plumbing Careers is an apprenticeship program that offers an intensive study of mechanical systems in commercial and residential buildings using a hands-on approach. Students will complete the Associated Builders and Contractors (ABC) national apprentice CORE Battery and Level I first year apprenticeship standards. Students should also have an interest in working with hand and power tools and be willing to work outside in a wide range of weather conditions. Applicants will be required to perform physical labor and lift heavy objects. They should be able to follow directions, work well both independently and as a team to complete the many practical projects that are required for the apprenticeship standards.

BCPS Magnet Transportation Information: Western School of Technology & Environmental Science (Southwest Area) Transportation is provided at community pick-up points only for students who are zoned for high schools in the Southwest or Northwest areas, as well as those who would otherwise attend Dulaney or Towson High School.

Open House: Thursday, November 3, 2011 6- 8 p.m.

2012-2013 Assessment Guidelines

Assessment Date: Saturday, January 21, 2012 *Assessments by appointment*


Pre-Assessment Workshop: Tuesday January 17, 2012 5:30 pm-7:00 pm
 Students will have the opportunity to practice the skills necessary for the math assessment and the practical assessment. **The workshop is optional and participation in the workshop is not considered during the application, audition or decision process. Students MUST register to attend the workshop.** It is recommended that you sign up for the workshop during the Open House, but if you are unable to attend the Open House, you may register until Friday, **January 13, 2012** by emailing John Kurtz jkurtz3@bcps.org or calling 410-887-0840.

Assessment reminders will be mailed to all applicants. Parents/Guardians of applicants who have NOT received notification at least five (5) days prior to the assessment date MUST contact the school to verify/schedule an appointment.

Parent(s)/guardian(s) should contact both the school and Magnet Office immediately if the applicant cannot attend or complete the scheduled assessment due to an unforeseen illness or emergency. Please be aware that assessments will not be rescheduled without documentation verifying the illness or emergency.

Inclement Weather Date: Saturday, January 28, 2012, at the previously scheduled appointment time

Inclement Weather: In the event that schools are closed due to inclement weather, weeknight magnet assessments will be postponed. Weekend magnet assessments will be postponed if the snow emergency plan is put into effect for Baltimore County. Postponed assessments will occur on the designated inclement weather date.

<p style="text-align: center;">Western School of Technology & Environmental Science 100 Kenwood Avenue Catonsville, MD 21228</p>	<p><u>Directions to Western:</u></p> <p>From the north:</p> <ul style="list-style-type: none"> Take 695 West towards Glen Burnie to the Wilkens Avenue East Exit 12B. Turn right on Wilkens Avenue, go under the beltway and turn left on Kenwood Avenue (there will be a sign to the Beltway Towson on Kenwood Avenue). Stay on Kenwood Avenue past the entrance to the beltway. Western will be at the top of the hill on your left. <p>From the south:</p> <ul style="list-style-type: none"> Take 695 North towards Towson to the Exit 12C Wilkens Avenue Exit. As you come off the exit, stay straight to the stop sign. Turn left at stop sign on Kenwood Avenue.
	
<p style="text-align: center;"><u>Magnet Coordinator</u> Lisa Gleason 410-887-0849 lgleason@bcps.org</p>	

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Prior to the Assessment

This **MUST** be completed prior to coming to the audition.

Complete the 2012-2013 Applicant Self-Evaluation included with these guidelines.

Prior to attending the assessment, student applicants may want to review:

Math Concepts: reading a ruler to a sixteenth of an inch and adding, subtracting, multiplying and dividing whole numbers, fractions and decimals.

A sample practice test has been included with these guidelines.

On the Day of the Assessment

The assessment takes approximately 2 hours.

It is the responsibility of the parent(s)/guardian(s) to:

- ensure that the applicant attends the assessment on the scheduled date and time.
- contact the schools if scheduled magnet assessment appointments conflict.

Failure to attend an assessment WILL result in disqualification.

Registration Information

Applicants must attend the school-based assessment for the program to which they applied. All students will be contacted regarding a specific appointment time.

Students should plan to arrive at least 15 minutes prior to their assessment time and report to the front lobby of Western. Assessments will start at the designated time. Students should be accompanied by at least one parent/guardian. **There will be no assessment provided for applicants arriving after the assigned assessment time.** Parents may stay in a designated area during the assessment.

Assessment Description

On assessment day, students will meet with instructors to independently complete a two-part practical assessment. Applicants will need to bring two #2 pencils to take the assessment. Applicants will complete a math assessment and a practical assessment.

Math Test (20 points):

Mechanical Construction/Plumbing Careers applicants will complete a skills inventory consisting of 20 selected response questions. It is important that students entering this program demonstrate proficiency and application of problem solving, measuring skills, and arithmetic functions of whole numbers, fractions and decimals without the aid of a calculator.

Practical Assessment (20 points): Students will be asked to complete a series of tasks. The assessment is hands-on where the applicant must apply math skills, ability to listen and follow directions.

Interview (20 points): Students will participate in an interview to demonstrate their interest in the Mechanical Construction/Plumbing Careers program and their maturity to participate in a "Work Safe" environment.

Documented testing accommodations, as appropriate to the assessment, will be provided.

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Magnet Events

Magnet EXPO!	Saturday, September 24, 2011 Crowne Plaza Timonium	10 a.m. - 2 p.m.
Magnet Application Meetings	Tuesday, September 27, 2011 Woodlawn HS Auditorium	Program starts at 6 p.m.
	Wednesday, September 28, 2011 Kenwood HS Auditorium	Program starts at 6 p.m.
Application Deadline	Wednesday, November 30, 2011	

Application packets are available at www.bcps.org/offices/omp. Applications must be hand delivered or postmarked on or before **November 30, 2011**. Late applications are not processed

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AND ENVIRONMENTAL SCIENCE
Mechanical Construction/Plumbing**

Name: _____

Date: _____

Math Practice Exam

Directions: Place the correct answer on the line adjacent to the question number. Each question is worth (1) points for a total of (10) points.

Whole Numbers

_____ 1. 5255
 515
 + 75

_____ 2. A job ticket shows the hours spent machining parts.

	<u>Machine</u>	<u>Hours</u>
Lathe		213
Milling		127
Grinder		32
Heat Treat		9

What is the total time required for this job?

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Math Practice Exam

Whole Numbers

_____ 3. A builder needs 17 trusses to build a breezeway. The trusses cost \$53 each. What is the total cost of the trusses?

_____ 4. The budget for a job is \$975. Mr. Jones is paid \$10.00 an hour and works 8 hours a day. If he works for 10 days, what is the **difference** between the budget and the actual cost?

_____ 5. A builder has a budget to build a home. The table below lists the budgeted amounts and the amount he has spent.

	Amount Budgeted	Amount Spent	Amount Left
Materials	\$52,000.00	\$49,700.00	
Labor	\$48,000.00	\$43,500.00	
Miscellaneous	\$8,700.00	\$7,750.00	

- Complete the table to show the amount left for each budget item.
- Question #5 - What is the total amount of the budget he has left to spend?

_____ 6. Three dozen copper tee's cost \$45.00. What is the cost of one dozen tee's?

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Math Practice Exam

Fractions and Measurements

What is the distance from the start of the standard ruler to question #7 and #8? Write the distance on the lines provided.



_____ 9. Subtract. Write your answer in lowest terms.

$$\frac{3}{4} - \frac{3}{8} =$$

_____ 10. A plumbing job calls for several lengths of pipe.
5 pieces @ $12\frac{1}{4}$ inches each
2 pieces @ $5\frac{1}{8}$ inches each
1 piece @ $10\frac{1}{2}$ inches

- Using the information above what is the total length of pipe needed for this job?

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Mechanical Construction/Plumbing

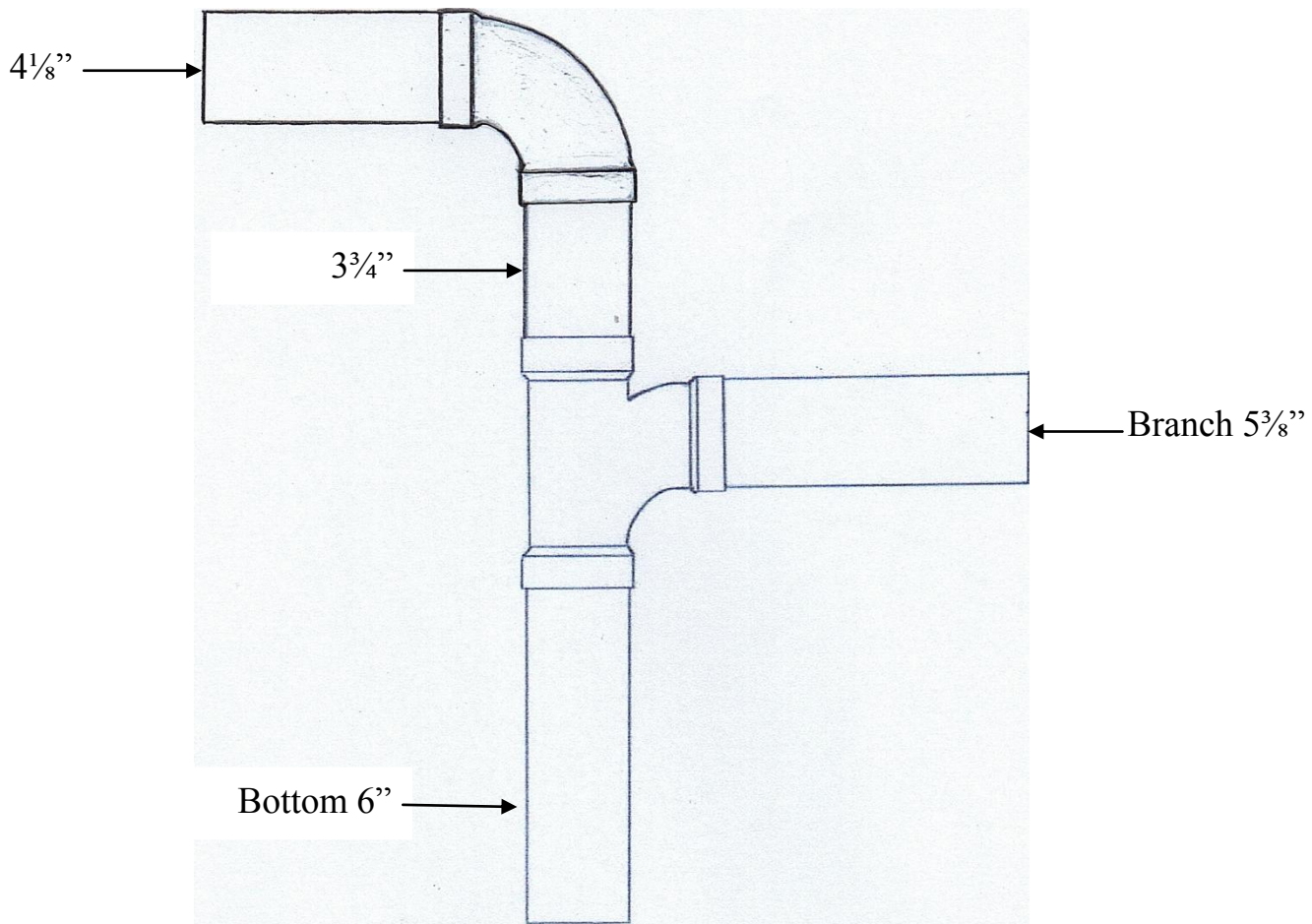
Name: _____

Date: _____

Sample Practical Exam

Time Limit: 10 Minutes

Directions: Measure each of the PVC pipes located on the work table with the supplied tape measure. Insert the $4\frac{1}{8}$ inch pipe in one side of the 90 degree elbow, $3\frac{3}{4}$ inch pipe in between the elbow and tee, the $5\frac{3}{8}$ inch pipe in the branch of the tee, and the 6 inch pipe in the bottom of the tee. The finished pipe assembly should replicate the drawing below. When finished leave your paper on the table and notify the proctor. Each length of pipe inserted correctly in the tee and elbow is worth (5) points for a total of (20) points.



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**Math Practice Exam
Answer Key**

1. 5845
2. 381 hours
3. \$901.00
4. \$175.00
5. \$7,750.00
6. \$15.00
7. $\frac{5}{8}$ "
8. $4\frac{1}{4}$ "
9. $\frac{3}{8}$ "
10. 82"

WESTERN SCHOOL OF TECHNOLOGY & ENVIRONMENTAL SCIENCE

APPLICANT SELF-EVALUATION 2012-2013

Mechanical Construction/Plumbing Careers

DO NOT include this worksheet with your application.

Important: All applications must be postmarked by the application deadline of **November 30, 2011**. Incomplete applications will not be considered for admission.

Admission Criteria

Magnet Program	Admission Criteria
Mechanical Construction/Plumbing Careers	<ul style="list-style-type: none"> ✓ Algebra I or higher in grade 8 ✓ B average (2.5 or better) in English/Language Arts, Mathematics, Social Studies and Science ✓ Satisfactory Attendance (94% or higher) ✓ Performance on Magnet Assessments (interview, practicum, and math test)

Magnet Assessment Date

On January 21, 2012, (inclement weather date: January 28, 2012), all applicants will be required to attend the assessment held at Western School of Technology and Environmental Science. Applicants should be accompanied by at least one parent/guardian. All applicants will be contacted regarding a specific appointment time.

Placement Prior to the Lottery

According to Superintendent's Rule 6400, *at the high school level where the number of qualified applicants exceeds the number of available seats, up to 20% of the seats may first be filled with candidates who show exceptional commitment and promise in the specialized program as evidenced by their performance on the approved magnet assessment(s). The remaining seats will be filled using the centralized random lottery selection process from the remaining pool of qualified applicants.* Specifically, applicants who earn the highest combined scores on the program assessments may fill up to 20% of the seats available in the magnet program.

Qualifying for Admission

The applicant must earn at least 80 points from the stated criteria in order to qualify for admission.

How to Calculate Your Grade Average

Convert your marking period grades to points (A=4, B=3, C=2, D=1, E=0).
Then divide by the number of marking periods.

Subject	Last Year's Report Card				Current Year's Report Card	Total Points	Total Marking Periods (4 or 5)	Grade Average
	1 st marking pd. grade/points	2 nd marking pd. grade/points	3 rd marking pd. grade/points	4 th marking pd. grade/points (if applicable)	1 st marking pd. grade/points			
English/Lang Arts								
Math								
Science								
Social Studies								

WESTERN SCHOOL OF TECHNOLOGY & ENVIRONMENTAL SCIENCE
Grade 9 APPLICANT SELF-EVALUATION 2012-2013
Mechanical Construction/Plumbing Careers

DO NOT include this worksheet with your application.

Important: All applications must be postmarked by the application deadline of **November 30, 2011**. Incomplete applications will not be considered for admission.

Criteria		Scoring		My information	My Score
Admission Criterion #1 Math Enrollment	Algebra I	Algebra I and higher	10 points	My current math course is _____ (record math course here)	_____/10 pts
		Algebraic Thinking 2	5 points		
		Pre-Algebra, Math 8, or below	0 points		
Admission Criterion #2 Grade Average (see "How to Calculate Your Grade Average")	"B" average or higher (2.5 or higher)	English/LA, Mathematics, Social Studies and Science: Score 5 points each for a grade average equaling "B" or higher (2.5 or higher) Score 0 points for each grade average less than "B" (less than 2.5)		English/Lang. Arts Average:	_____/5 pts
				Mathematics Average:	_____/5 pts
				Science Average:	_____/5 pts
				Social Studies Average:	_____/5 pts
Admission Criterion #3 Attendance	94% Attendance Total unexcused absences in Grade 7 -plus- first quarter/trimester in Grade 8	Total unexcused absences in Grade 7 -plus- first quarter/trimester in Grade 8 = 14 days or less.	10 points	Total unexcused absences in Grade 7 (all quarters/trimesters) = ____ days -plus- Total unexcused absences in Grade 8 (first quarter/trimester only) = ____ days Total unexcused absences = ____ days	_____/10 pts
		Total unexcused absences in Grade 7 -plus- first quarter/trimester in Grade 8 = 15 days or more.	0 points		
Admission Criterion #4 Math Assessment	Score on assessment determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Admission Criterion #5 Interview	Score on Interview determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Admission Criterion #6 Practical Assessment	Score on assessment determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Points to Qualify	80 points	My Score:			_____/100 pts

DO NOT include this worksheet with your application.

FOR STUDENT SELF-ASSESSMENT USE ONLY – does not indicate qualification for programs.

WESTERN SCHOOL OF TECHNOLOGY & ENVIRONMENTAL SCIENCE
Grade 10 APPLICANT SELF-EVALUATION 2012-2013
Mechanical Construction/Plumbing Careers

DO NOT include this worksheet with your application.

Important: All applications must be postmarked by the application deadline of **November 30, 2011**. Incomplete applications will not be considered for admission.

Criteria		Scoring		My information	My Score
Admission Criterion #1 Math Enrollment	Algebra II	Algebra II and higher	10 points	My current math course is _____ (record math course here)	_____/10 pts
		Algebra I	5 points		
		Algebraic Thinking 2, Pre-Algebra, Math 8, or below	0 points		
Admission Criterion #2 Grade Average (see "How to Calculate Your Grade Average")	"B" average or higher (2.5 or higher)	English/LA, Mathematics, Social Studies and Science: Score 5 points each for a grade average equaling "B" or higher (2.5 or higher) Score 0 points for each grade average less than "B" (less than 2.5)		English/Lang. Arts Average: _____	_____/5 pts
				Mathematics Average: _____	_____/5 pts
				Science Average: _____	_____/5 pts
				Social Studies Average: _____	_____/5 pts
Admission Criterion #3 Attendance	94% Attendance Total unexcused absences in Grade 8 -plus- first quarter/trimester in Grade 9	Total unexcused absences in Grade 8 -plus- first quarter/trimester in Grade 9 = 14 days or less.	10 points	Total unexcused absences in Grade 8 (all quarters/trimesters) = ____ days -plus- Total unexcused absences in Grade 9 (first quarter/trimester only) = ____ days Total unexcused absences = ____ days	_____/10 pts
		Total unexcused absences in Grade 8 -plus- first quarter/trimester in Grade 9 = 15 days or more.	0 points		
Admission Criterion #4 Math Assessment	Score on assessment determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Admission Criterion #5 Interview	Score on Interview determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Admission Criterion #6 Practical Assessment	Score on assessment determines total points earned.	Applicants may earn up to 20 points.		To be determined on January 21, 2012.	_____/20 pts
Points to Qualify	80 points	My Score:			_____/100 pts

DO NOT include this worksheet with your application.

FOR STUDENT SELF-ASSESSMENT USE ONLY – does not indicate qualification for programs.