DIVISION MEMORANDUM
NO. 219 series 2016

TO: Public Schools District Supervisors, Public and Private Elementary School Heads

FROM: DEE D. SILVA, DPA, CESO VI
Schools Division Superintendent

For and in the absence of Dee D. Silva:

SOLLIE B. OLIVER
Education Program Supervisor – English
Officer-In-Charge

SUBJECT: Philippine Science High School National Competitive Examination (PSHS NCE)

DATE: April 26, 2016

Attached is the DepEd Regional Memorandum No. 086, s. 2016 on the announcement of the deadline for submission of applications for the Philippine Science High School National Competitive Examination PSHS NCE on September 2, 2016. Contents of which are self-explanatory for your guidance.

Enclosed are the details of the communication and the application form.

Information and wide dissemination is desired.
PHILIPPINE SCIENCE HIGH SCHOOL NATIONAL COMPETITIVE EXAMINATION (PSHS NCE)

TO: Schools Division Superintendents
School Administrators of Public and Private Elementary Schools

1. Herewith is a letter from Ms. Delia C. Legaspio, Director, Philippine Science High School Southern Mindanao Campus informing the deadline for the submission of applications for the PSHS NCE on September 2, 2016.

2. Grade 5 pupils from both public and private elementary schools are encouraged to apply and take the said examination.

3. Details of the said communication are in the enclosures.

4. Immediate and wide dissemination of this Memorandum to all concerned is desired.

ATTY. ALBERTO T. ESCOBASTE, CESO IV
Regional Director

Incl.: As stated
Reference: Letter from the Office of the Director of Philippine Science High School Southern Mindanao Campus

ROCO/nilb

[Stamp: RELEASED]

Date: ________ Time: ________
For question 5, refer to the diagram below.

Work is done by a force only if there is displacement along the direction of the force. The diagram above shows that the force \( F_x \) in A presses against the block. In B, the force \( F_y \) is vertical while the block is displaced horizontally. In C, \( F_z \) pushes the block to the right a distance \( d \). And in D, \( F_d \) is applied against a concrete wall.

5. Work is accomplished in
A. A
B. B
C. C
D. D

ANSWERS TO THE SCIENTIFIC ABILITY QUESTIONS:
1. D  In an experiment, there must be an experimental set-up and a control setup.
2. D  Doing the experiment is the best way to find the effect of adding rubbing alcohol on the boiling temperature of water. The rest of the choices would not give valid conclusions.
3. D  A, B, and C are all important precautions since not doing them may affect the rest of the experiment. Only D can be ignored
4. B  Based on the given observation, sound was not heard when air was pumped out of the jar; so sound does not travel in a vacuum.
5. C  Based on the given definition of work, only C is the correct answer since force \( F_d \) displaced the block along its direction. Displacement did not take place in A, nor in D. In B, force \( F_y \) and the displacement \( d \) are not in the same direction.

Where to file applications\(^*\)

**PSHS Campuses**

<table>
<thead>
<tr>
<th>Main Campus</th>
<th>Central Visayas Campus</th>
<th>Cordillera Administrative Region Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agham Road, Dillman, C.C. Tel. No. (02) 939-1560/924-0014</td>
<td>Talisay, Cebu, Cebu Tel. Nos. (032) 513-4278 / 495-8975</td>
<td>Baguio City Tel. No. 0959-2137060 / 0917-591777</td>
</tr>
<tr>
<td>Siquijor Region Campus</td>
<td>Eastern Visayas Campus</td>
<td>Caraga Region Campus</td>
</tr>
<tr>
<td>Siquijor, Siquijor Tel. No. (077) 728-4100</td>
<td>Palu, Leyte Tel. No. (054) 323-7020</td>
<td>Caraga State University Campus, Arayon, Butuan City Tel. No. (086) 344-2177 / 316-1361</td>
</tr>
<tr>
<td>Cagayan Valley Campus</td>
<td>Central Mindanao Campus</td>
<td>CALABARZON Campus</td>
</tr>
<tr>
<td>Bicol, Naga City Tel. No. (076) 392-1297</td>
<td>Bicol, Naga City Tel. No. 0969-5718005</td>
<td>Batangas National High School Campus., Balay, Tagaytay, Batangas City Tel. No. (043) 349-0012</td>
</tr>
<tr>
<td>Southern Mindanao Campus</td>
<td>Southern Mindanao Campus</td>
<td>MINDANAO Campus</td>
</tr>
<tr>
<td>Davao City Tel. No. (082) 293-9002</td>
<td>Davao City Tel. No. (082) 293-9002</td>
<td>Davao City Tel. No. (082) 293-9002</td>
</tr>
<tr>
<td>Mindanao Region Campuses</td>
<td>SOCSKARAGEN Region Campus</td>
<td>Siquijor, Cebu, Cebu Tel. No. (032) 513-4278 / 495-8975</td>
</tr>
<tr>
<td>Siquijor, Siquijor Tel. No. (077) 728-4100</td>
<td>Paranaque, Muntinlupa City, Ph. Tel. No. (0969-5718005</td>
<td>Philippines Regional Office, PSKHS-OED Tel. No. (02) 939-2137060 / 0917-591777</td>
</tr>
<tr>
<td>Western Visayas Campus</td>
<td>Zamboanga Peninsula Campus</td>
<td>Davao City Tel. No. (082) 293-9002</td>
</tr>
<tr>
<td>Boracay Island, Aklan Tel. No. (081) 329-5644</td>
<td>Cebu City Tel. No. (032) 513-4278 / 495-8975</td>
<td>Cebu City Tel. No. (032) 513-4278 / 495-8975</td>
</tr>
</tbody>
</table>

\(^*\)You may also file at DOST Regional Office or at DOST Provincial Science and Technology Office.

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**THE DOST-PHSHS SYSTEM MILESTONES**

Rosalynn C. Act 3661 established the Philippine Science High School and mandates it to offer on a free scholarship basis a secondary course with emphasis on subjects pertaining to science with the end goal of preparing its students for careers in science and technology. From the first campus in Diliman, Quezon City in 1963, it has at present expanded into eleven campuses nationwide.

The Cavite and Iloilo campuses were created in 1968 and 1993 respectively, followed by that in Tacadan in 1994. The increase in the number of campuses necessitated the harmonization of policies and curriculum to ensure that uniform standards are maintained in all campuses. Thus, the PSHS System was created by RA 8496 in 1998 when three other campuses were established in Cagayan Valley, Bicol, and Central Mindanao Regions.

A campus in Iloilo Region was opened in 2003 in response to one of the provisions in RA 9024, An Act Strengthening the Governance and Defining the Scope of the PSHS System, Amending for the Purpose RA 8496. Another campus opened in 2006 in Central Visayas. Two more campuses opened in June of 2009, the Central Luzon Campus and the Cordillera Administrative Region Campus. The SOCSKARAGEN Region Campus opened in June 2013, the Caraga Region Campus opened in June 2014, the CALABARZON Campus opened in July 2015. As provided for by law, the MINDANAO Campus and Zamboanga Peninsula Campus will open in August 2016.

The PSHS System is an attached agency of the Department of Science and Technology (DOST). The highest policy-making body of the PSHS System is the Board of Trustees with the DOST Secretary as Chairman.

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**VISION**

The Philippine Science High School is the country's leading science high school that prepares its scholars to become world-class Filipino scientists dedicated to nation-building.

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**MISSION**

The Philippine Science High School, operating under one system of governance and management, provides scholarships to students with high aptitudes in science and mathematics.

The PSHS offers an education that is humanistic in spirit, global in perspective and patriotic in orientation. It is based on a curriculum that emphasizes science and mathematics, and the development of well-rounded individuals.

The PSHS prepares its students for careers in S&T and contributes to nation building by helping the country attain a critical mass of professionals and leaders in S&T.

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**SCHOLARSHIP PRIVILEGES**

- Free tuition fees
- Free loan of textbooks
- Monthly stipend
- Uniforms, transportation and living allowances for low income groups.
CRITERIA FOR ELIGIBILITY

A grade 6 elementary pupil from a duly recognized school by the Department of Education, who meets the following criteria is eligible to apply for the PSHS National Competitive Examination (NCE). He/She must:

1. have final grade of 85% or better in Science and Mathematics, evidenced by the student's report card, if the student's grades in Science or Math are above 85%, then, he/she must provide evidence that he/she belongs to the upper 10% of the class;
2. be a Filipino citizen with no pending or approved application as immigrant to any foreign country;
3. be born on or after August 1, 2002;
4. have at least a satisfactory rating (or its equivalent) in his/her Character Rating in his/her report card (SY 2015-2016);
5. not have taken the PSHS NCE previously; and
6. preferably, be in good health and fit to undertake a rigorous academic program.

REQUIREMENTS

1. Fully accomplished Application Form in two (2) copies
2. Two (2) identical recent 1 x 1 ID pictures
3. Non-refundable test fee — for private school students — P 100
   — for public school students — free
4. Certified true copy of report card (SY 2015-2016) by the class advisor/ principal
5. If the final grades in Science or Math are below 85%, certification or proof that the child belongs to the upper 10% of the class

SCREENING PROCESS

Only one test will be administered, a scholastic aptitude test (known as National Competitive Examination) which is designed to measure Scientific Ability, Quantitative Ability, Abstract Reasoning and Verbal Aptitude. The NCE will be administered on October 22, 2016.

APPLICATION PROCESS

The PSHS NCE application form and the accompanying material are NOT FOR SALE, may be PHOTOCOPIED, and may be DOWNLOADED FROM THE PSHS WEBSITE, www.pshs.edu.ph. NO RESERVATION FEE IS REQUIRED.

Application forms are available and may be filed at any of the following: PSHS Campuses, DOST Regional offices, or Provincial Science and Technology Offices. Application forms with incomplete information will not be processed. Easements, alterations and insertions must be initiated by the applicant.

The Examination Permit(s) will be issued to the applicants upon completion of all documents by the campus where the application was processed. For applications filed with DOST agencies, the exam permits will be mailed to the applicant or to the school principal for distribution to its applicant/s. In case the exam permits are not received two weeks before the examination day, the applicants should check with the nearest PSHS campus, DOST Regional Office, DOST Provincial Science and Technology Office, or the PSHS Admissions Office.

The deadline for filing of application is: September 2, 2016
The date of the Examinations is: October 22, 2016

4. C The smallest possible difference is obtained by making the minuend as small as possible and the subtrahend as large as possible.
   ___________ = 96 subtracted
   245 minutes

5. B Philippine time 9:20 pm Swiss time is 7:30 hrs. late of Philippine time.
   9:20  →  8:00
   7:30  →  7:30

Swiss time is 1:50 pm

SCIENTIFIC ABILITY

1. A new drug for the treatment of tuberculosis was being tested in a hospital. Patients in Group A actually received doses of the new drug; those in Group B were given sugar pills. Group B represents:
   A. a scientific experiment
   B. a scientific method
   C. the experimental setup
   D. the control set-up

2. You want to find out what will happen to the boiling temperature of 10 ml of water if rubbing alcohol is added to it. What would be the best thing to do?
   A. Check the boiling temperature of rubbing alcohol in a book and draw your conclusions.
   B. Assume that there would be no effect.
   C. Guess that rubbing alcohol would raise the boiling temperature of water.
   D. Set up an experiment to discover the effect of rubbing alcohol on the boiling temperature of water.

3. A chemist is asked to determine whether exposure to sunlight affects the color of a liquid. Which of the following precautions could he most probably ignore?
   A. Place one sample in a dark place.
   B. Keep the samples covered to prevent evaporation.
   C. Keep the temperature of the samples constant.
   D. Pour the liquid into bottles of different shapes.

4. An electric bell rings while inside an enclosed glass jar. When the air inside the jar is pumped out, the sound becomes fainter and fainter until it is gone. On the basis of this, one can conclude that:
   A. sound travels faster in air than in glass.
   B. sound does not travel in a vacuum.
   C. sound travels faster in air than in a vacuum.
   D. Sound does not travel in glass.
5. Read the passage carefully. Then, choose from the statements below, one that is NOT directly stated but is IMPLIED. Indicate your BEST answer by shading the appropriate circle on your Answer Sheet.

Cholesterol, a fatty substance, is produced by almost every cell in the body, but as much as 70 percent is manufactured in the liver. It is present in many of the foods we eat. While cholesterol is necessary to produce hormones and to make nerve cells, an excessive amount often results in atherosclerosis, a condition characterized by fatty deposits that cling to the walls of blood vessels, narrowing their diameter and greatly increasing the likelihood of heart attack and stroke.

A. High levels of cholesterol is necessarily harmful to the body.
B. Controlling the amount of cholesterol in the body will lessen the risk of heart disease.
C. An excessive amount of cholesterol results in atherosclerosis.
D. Cholesterol causes the narrowing of the diameter of blood vessels

ANSWERS TO THE VERBAL ATTITUDE TEST QUESTIONS:

1. B The word dilate means to make or become larger or wider. When something (like the pupil of the eyes) becomes dilated, it appears enlarged.
2. A A microscope magnifies to help a person see it in the same way that an amplifier magnifies sound in order to help a person hear.
3. B The item is one on Subject-Verb Agreement. The subject is study. It is singular. So the verb must be singular and in the simple present tense.
4. B The sentence is an item on degree of comparison of adjectives. When a sentence compares only two persons or things, the comparative degree is used. In the sentence, This cactus is being compared to the others, hence, the term much should be more. The term than further supports the need for the comparative degree.
5. A Statements C and D are directly stated in the paragraph. Statement B may be true but since the effect of cholesterol is not confined to the heart and affects the blood vessels all over the body, choice A is the BEST answer.

ABSTRACT REASONING

For Items 1 and 2: Choose the box that is DIFFERENT from the other three in the set. Indicate your answer by shading the appropriate circle on your Answer Sheet.

1. A B C D

For Items 3, 4, and 5: The boxes go together in a certain way. Find out what the relationship is from among the lettered boxes then choose the one that has the same relationship and would fit the empty box. Indicate your answer by shading the appropriate circle on your Answer Sheet.

3. A B C D

4. A B C D

5. A B C D

ANSWERS TO THE ABSTRACT REASONING QUESTIONS:

1. D For item no. 1, the flags in three of the figures follow a clockwise movement except one. The figure that deviates from the rule is figure D. Thus, the answer is D.
2. C Three figures in item no. 2 contain 4 triangles each, but figure C has 6.
3. C From the choices, box C correctly fits the pattern shown by the first three boxes.
4. A In item no. 4, the figures follow a rule. When the first two figures are overlapped, the colors of the outer triangles dominate. The second set of triangles when overlapped will produce a white triangle since the outer triangles are colored white. Thus, from the choices, the box that correctly fits the empty box is box A.
5. B The figure shows a decreasing number of lines from both directions. Figure B follows the pattern.
**QUANTITATIVE ABILITY**

1. If the sum of four numbers is even, which of these statements CANNOT be true?
   A. All four numbers are odd.
   B. 3 numbers are odd and 1 is even.
   C. 2 numbers are odd and 2 are even.
   D. All four numbers are even.

2. In the figure below, what is the ratio of the shaded area to the unshaded region?
   
   ![Diagram]
   
   A. 1:4
   B. 2:5
   C. 1:3
   D. 1:2

3. \( p\% \) of \( m \) is \( n \). If \( n \) is greater than \( m \) then
   A. \( p < 100 \)
   B. \( p > 100 \)
   C. \( p = 100 \)
   D. \( p > 100 \)

4. What is the SMALLEST possible difference when each of the digits 2, 4, 5, 6, 9 is placed exactly once in the boxes of this subtraction problem?
   
   ![Diagram]
   
   A. 31
   B. 123
   C. 149
   D. 171

5. Philippine time is 7½ hours ahead of Switzerland time. If it is 9:20 p.m. in Manila, Philippines, what time is it in Bern, Switzerland?
   A. 2 a.m.
   B. 1:50 p.m.
   C. 7:30 p.m.
   D. 1:50 a.m.

**SAMPLE TEST QUESTIONS**

**VERBAL APTITUDE**

1. The item below consists of an underlined word, followed by four (4) choices. From the four, select the word that is closest in meaning to the word in the original sentence if it is substituted for the underlined word. Indicate your answer by shading the appropriate circle on your Answer Sheet.

   The doctor placed a few drops of medicine in the patient’s eyes. The medicine caused the patient’s eyes to become _____.
   A. reduced  
   B. rounded  
   C. irritated  
   D. enlarged

2. The item below consists of a related pair of words, followed by four lettered pairs of words. Select the pair that BEST expresses a relationship similar to that expressed in the original pair. Indicate your answer by shading the appropriate circle on your Answer Sheet.

   MICROSCOPE ; SEE :: ________
   A. amplifier; hear  
   B. song; listen  
   C. calculator; write  
   D. camera; smile

3. From the choices below, select the word that BEST completes the meaning of the sentence. Indicate your answer by shading the appropriate circle on the Answer Sheet.

   The study of these animals ________ truly fascinating. Many books have been written about them.
   A. are  
   B. Is  
   C. were  
   D. have been

4. Some parts of the sentence below are underlined and marked A, B, C, and D. These parts may or may not have an error. If the sentence has an error, choose the lettered part that makes it wrong. If the sentence has NO ERROR, choose E. Indicate your answer by shading the appropriate circle on the Answer Sheet.

   This cactus needs much sunlight than the others. NO ERROR.
   A. B. C. D. E.
2016 DOST-PHILIPPINE SCIENCE HIGH SCHOOL SYSTEM NATIONAL COMPETITIVE EXAMINATION (NCE) APPLICATION FORM

Personal Data:
1) NAME OF PUPIL-APPLICANT: (Last Name, First Name, Middle Name)
2) BIRTHDATE:
3) SEX: MALE 4) CONTACT NUMBERS: 
FEMALE
5) EMAIL ADDRESS:

6) COMPLETE HOME/PERMANENT ADDRESS: (Can include your zip code)

Consider the Following When Choosing a Campus:

1. The score in the NCE is the major basis for qualifying to any PSHS campus.
2. All examinees are ranked from highest to lowest. The top 240 qualifiers irrespective of region of origin will be invited to enroll in the Main Campus but acceptance to the invitation is not compulsory.

To be filled up by the parents:

1. Is your child a Filipino citizen? 
2. Are your children the Indigenous Cultural Communities? If YES, pl. specify.
3. Does your child have a pending or approved application as immigrant in any foreign country?
4. Has your child taken the PSHS National Competitive Examination before?
5. If not qualified in the Main Campus (MC), are you willing to enroll your child in a Regional Campus? He/she will qualify if (YES), no, he/she will not qualify.

Please check the regional campus (choose only ONE) if answer in No.5 is YES.

- ELOCOS REGION - San Ildefonso, Ilocos Sur
- CENTRAL LUZON - Clark Freeport Zone, Pampanga
- CALABARZON - Antipolo City
- MIMAROPA - Oslob, Cebu
- Bicol Region - Gose, Camarines Sur
- Western Visayas - Argao, Cebu
- Eastern Visayas - Palo, Leyte

I certify that the above information is true and correct. I understand that any false or misleading information will result to the disqualification of applicant/admission.

Signature over Printed Name of Parents

To be filled up by the school authority concerned:

1) NAME OF SCHOOL (Write name of school in full):
2) COMPLETE SCHOOL ADDRESS:
3) SCHOOL TYPE: Public or Private
4) GRADE LEVEL as of June 2016:
5) SCHOOL CONTACT NO.: 
6) Pupil-Applicant’s FINAL GRADE IN SCIENCE (SY 2015-2016):
7) Pupil-Applicant’s FINAL GRADE IN MATHEMATICS (SY 2015-2016):
8) Pupil-Applicant’s FINAL CHARACTER RATING (SY 2015-2016):

I hereby certify that the pupil-applicant is currently enrolled in Grade 6 for SY 2016-2017.

Signature over Printed Name of Principal/ School Head/ Registrar/ Teacher

(please do not detach)

This serves as a proof of application. IMPORTANT: This does NOT serve as the test permit.

Recommendation of the PSHS Regional/DOST or PSHS Coordinator:

As per data above:
Approved:
Disapproved:
Reason(s) for Disapproved:

Recommendation of the PSHS Regional/DOST or PSHS Coordinator:

To be accomplished by the PSHS Cashier:

Made of Payment:
Cash
Money Order

No. of Applicants:
(for group filing)
Amount Paid:

No. of stamps issued:
Series Number:

Proc. by:
DOST
PSHS

Date:

Reminders to the Examinee:

1. Be at your testing center on October 22, 2016 one (1) hour before your scheduled examination (either a.m. or p.m. as indicated in the exam permit).
2. Present the Examination Permit and your school ID. to the Proctor/Room Examiner.
3. Bring at least two sharpened #2 pencils, a good eraser and snacks.
4. If you do not receive your examination permit two (2) weeks before the exam, you may visit or call the nearest PSHS Campus or call PSHS Admissions Office at telephone no. (02) 929-PSHG (9297747) or check at www.pshs.edu.ph.
5. If in case of unforeseen circumstances (adverse weather conditions, impassable roads due to floods and earth quakes), the NCE may be postponed. You should call the PSHS Admissions Office or the nearest PSHS Campus or check www.pshs.edu.ph for announcements.
6. You will be notified if you qualify to enroll at PSHS either by mail or you may also check results at www.pshs.edu.ph. You may also inquire from the nearest PSHS Regional Campus or call PSHS Admissions Office, Tel No.: (02) 929-PSHG (9297747).