Dear Parent or Guardian,

I would like to welcome your child to an exciting, new school year at Pittsburgh Barack Obama Academy of International Studies 6-12. As part of the Science team, I am corresponding with you to provide important information regarding the International Baccalaureate Diploma Programme (IBDP) Biology 2 Standard Level course for Grade 12. This is a challenging and demanding course that will focus on the Four Major Themes of Biology:

**Theme 1: Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.**

**Theme 2: Living systems store, retrieve, transmit and respond to information essential to life processes.**

**Theme 3: The process of evolution drives the diversity and unity of life.**

**Theme 4: Biological systems interact, and these systems and their interactions possess complex properties.**

These four themes and their essential knowledge components will be the thrust of our work across several units of study in the Biology 2 curriculum. The following topics will be covered:

- Cell Biology
- Molecular Biology
- Genetics
- Ecology
- Evolution and Biodiversity
- Human Physiology

One or more of the following Options:

- Neurobiology and Behavior
- Biotechnology and Bioinformatics
- Ecology and Conservation
- Human Physiology

The course is designed to:

- provide a body of knowledge, methods and techniques that characterize science and technology
- enable students to apply and use a body of knowledge, methods and techniques that characterize science and technology
• develop an ability to analyze, evaluate and synthesize scientific information

• develop experimental and investigative scientific skills

• engender an awareness of the need for, and the value of, effective collaboration and communication during scientific activities

• develop and apply students’ information and communication technology skills in the study of science

• raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology

• develop an appreciation of the possibilities and limitations associated with science and scientists

• encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method

Students will be given periodic formative assessments throughout lessons to monitor their learning progress, and summative assessments will follow at the end of each unit. For all students, whether sitting for the IB Biology exams or not, science learning objectives specific to IBDP will be assessed using the IBDP assessment criteria listed below:

### Assessment at a Glance

<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Format of Assessment</th>
<th>Time (hrs)</th>
<th>Weighting of Final Grade (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External</strong></td>
<td></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Paper 1</td>
<td>Multiple Choice</td>
<td>.75</td>
<td>20</td>
</tr>
<tr>
<td>Paper 2</td>
<td>Data Analysis, short answer, open response</td>
<td>1.25</td>
<td>40</td>
</tr>
<tr>
<td>Paper 3</td>
<td>Short answer and extended response</td>
<td>1.0</td>
<td>20</td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Practical Work</td>
<td>General laboratory work and field work, computer simulations, data gathering exercises and data analysis exercises may be carried out</td>
<td></td>
<td>Group 4 collaborative and interdisciplinary project</td>
</tr>
</tbody>
</table>
CLASSROOM RULES:

1. Be safe at all times - SAFETY IS PARAMOUNT!
2. Be on time for class
3. Be prepared to learn
4. Be respectful
5. Follow directions
6. Always do your best
7. The 5 Ps: Prompt, Prepared, Productive, Polite, Positive

DAILY REQUIREMENTS FOR CLASS:

1. Notebook Binder/Notebooks
2. Agenda book
3. Pencil or pen
4. Appropriate textbook
5. Completed homework/assignments

PROCEDURES/EXPECTATIONS:

1. All school rules and policies must be followed in classroom.
2. Students are expected to be on time.
3. Absolutely no cell phone usage at any time.
4. Absolutely no food or drinks are permitted in the classroom.
5. Act as a young adult in class with proper respect for teacher, and other students.
6. Assignments must be handed in at or before deadline.
7. Students are responsible for seeing me for missed assignments after any absences.
8. Extra credit work will not be given.
9. Homework will generally be assigned four nights each week.

BASIC DISCIPLINE POLICY:

1. If learning or teaching is disrupted in the classroom, a verbal reminder or teacher/student conference will be arranged.
2. If this does not remedy the problem, a phone call to parents will be made.
3. If disruptive behavior persists, a written referral will be submitted.
4. Any serious infraction of school policies/rules will result in a written referral.
EVALUATION/ASSESSMENT/GRADING POLICY:

1. All assignments are expected to be submitted on time. Science work submitted after a deadline will result in a reduction in grade, and/or will be assigned a zero grade.
2. Extra credit is not available.
3. Rubrics devised via IBDP and PPS standards will be used to evaluate assignments and assessments.
4. Students will also be given formative assessments throughout lessons to monitor their learning progress. Summative assessments will follow at the end of each unit.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numeric value range</th>
<th>Lowest numeric value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
<td>90</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89</td>
<td>80</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79</td>
<td>70</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69</td>
<td>60</td>
</tr>
<tr>
<td>E</td>
<td>50 – 59</td>
<td>50</td>
</tr>
</tbody>
</table>

Category 1: Classwork (25%)

- Cooperative group summaries
- Group and class discussions and activities
- Lab sessions
- Pre and post-lab evaluations

Category 2: Writing (20%)

- Daily Notes
- Hypotheses
- Readers Writer’s Section
- Lab Reports
- Summary, multi paragraph, and note taking Write Tools work

Category 3: Homework (10%)

- Section/Chapter assessment questions
- Writing summaries

Category 4: Assessments (25%)

- Quizzes
- Chapter and Unit tests
- Semester Exams
- Culminating projects
- Presentations
Category 5: Participation (20)

- Warm-ups
- Participation in group and class discussions
- Lab session participation
- Presentations

I hope you find this letter both helpful and informative. If you ever have any questions or concerns, please feel free to contact me directly via email at hludwick1@pghboe.net or via phone at 412-529-6345. I look forward to a great year and the opportunity to work with you and your child during the 2016-2017 school year.

Sincerely,
Mr. Henry Ludwick III

Approved: ____________________________
Dr. Wayne N. Walters, Principal

Please complete this portion of the letter and return it with your child. Thank You.
I have read the policies, expectations and grading guidelines listed in the letter and I understand the expectations for Biology. I agree to take a “no excuses” stance concerning these areas.

Student Name______________________ Student Signature______________________

Parent/guardian Signature ________________________ E-mail____________________

Phone Number(s) {Day} ______________________ {Evening}____________________

Date_____________________

We are an equal rights and opportunity school district. | Parent Hotline: 412-529-7920 | www.pps.k12.pa.us