International
Baccalaureate Program(me)
Thomas A. Edison High School
January 31, 2017
Our IB mission

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.
3 Levels of IB

11th and 12th grades
Content and skills driven, students and teachers are responsible for a specific curriculum developed by IB, exams are externally assessed by the IB

7th–10th grades
Aims to help students develop their personal understanding, their emerging sense of self and responsibility in their community

K-6th grades
Not in the Edison pyramid; Belvedere Elementary School currently only PYP school in FCPS; Edison pyramid principals are learning about IB this year
FCPS Portrait of a Graduate and IB Learner Profile Crosswalk

<table>
<thead>
<tr>
<th>Communicator</th>
<th>Collaborator</th>
<th>Global Citizen</th>
<th>Creative and Critical Thinker</th>
<th>Goal-Directed and Resilient Individual</th>
</tr>
</thead>
</table>
| - Applies effective reading skills to acquire knowledge and broaden perspectives  
- Employs active listening strategies to advance understanding  
- Speaks in a purposeful manner to inform, influence, motivate, or entertain listeners  
- Incorporates effective writing skills for various purposes and audiences to convey understanding and concepts  
- Uses technological skills and contemporary digital tools to explore and exchange ideas  
- Expresses oneself confidently and creatively in more than one language (Communicators)  
- Listens carefully to the perspectives of other individuals and groups  
- Communicates effectively in oral and written forms  
- Works independently and cooperatively to explore new ideas and innovative strategies (Risk-takers)  
- Learns now to learn independently and with others (Inquirers)  
- Collaborates effectively, listening to the perspectives of other individuals and groups  
- Seeks and evaluates a range of points of view, and we are willing to grow from the experience (Open-minded)  
- Develops intercultural awareness and show empathy, compassion and respect (Caring)  
- Takes action to make a positive difference  
- Recognizes our interdependence with other people and with the world which we live (Balanced)  
- Expresses oneself in more than one language (Communicator)  
- Values own and others cultures (Open-minded)  
| - Respects divergent thinking to engage others in thoughtful discussion  
- Demonstrates the ability to work interdependently within a group to promote learning, increase productivity, and achieve common goals  
- Analyzes and constructs arguments and positions to ensure examination of a full range of viewpoints  
- Seeks and uses feedback from others to adapt ideas and persist in accomplishing difficult tasks  
| - Acknowledges and understands diverse perspectives and cultures in the consideration of issues that impact our local area, nation, and world  
- Contributes to solutions that benefit the broader community  
- Communicates effectively in multiple languages to make meaningful connections  
- Participates in collective efforts that promote environmental stewardship  
| - Engages in problem solving, inquiry, and design of innovative solutions to overcome obstacles to improve outcomes  
- Uses information in novel and creative ways to strengthen comprehension and deepen awareness  
- Demonstrates divergent and ingenious thought to enhance the design/build process  
- Expresses thought, ideas, and emotions meaningfully through the arts  
- Evaluates ideas and information sources for validity, relevance, and impact  
- Reasons through weighing evidence to reach conclusions  
| - Exhibits physical and mental wellness through positive activities, healthy relationships and self-advocacy  
- Persists to accomplish difficult tasks and to overcome academic and personal barriers to meet goals  
- Uses time and financial resources sufficiently to set challenging goals, completing tasks, and managing projects  
- Shows strong understanding and belief of self to engage in reflection for individual improvement  
- Acts responsibly and ethically to build trust and lead |
IB at Edison

- **DP at Edison:** Started in 1999, first Diploma class graduated in 2000. We have 348 students registered for 816 IB Subject tests for the May 2016 testing session.

- **MYP at Edison:**
We certify that

Thomas Alva Edison High School & Mark Twain Middle School

is authorized to offer the Middle Years Programme of the International Baccalaureate

Thomas Alva Edison High School, (contact school), offering years 4 and 5 of the MYP
Mark Twain Middle School, (partner school), offering years 2 and 3 of the MYP

Dr. Siva Kumari
Director general - Geneva
Directrice générale - Genève
Directora general - Ginebra

13 December 2016
What is IB Middle Years Program (MYP)?
What is an IBMYP education?

Diagram showing the cycle of Inquiry, Action, and Reflection.
What is an IBMYP education?

<table>
<thead>
<tr>
<th>ATL skill categories</th>
<th>MYP ATL skill clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>I. Communication</td>
</tr>
<tr>
<td>Social</td>
<td>II. Collaboration</td>
</tr>
<tr>
<td>Self-management</td>
<td>III. Organization</td>
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<tr>
<td></td>
<td>IV. Affective</td>
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<td></td>
<td>V. Reflection</td>
</tr>
<tr>
<td>Research</td>
<td>VI. Information literacy</td>
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<td></td>
<td>VII. Media literacy</td>
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<tr>
<td>Thinking</td>
<td>VIII. Critical thinking</td>
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<td></td>
<td>IX. Creative thinking</td>
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<td></td>
<td>X. Transfer</td>
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</table>
What is an IB MYP education?

“What matters is not the absorption and regurgitation either of facts or of predigested interpretations of facts, but the development of powers of the mind or ways of thinking which can be applied to new situations and new presentations of facts as they arise.

(Alec Peterson, first IB Director General 2003: 47)
What is an IBMYP education?
What is an IBMYP education?

Personal Project
Examples from South Lakes HS
What is the IB Diploma Programme Curriculum?
The Courses

Students can elect to take individual IB courses in their areas of strength or they can pursue the full IB Diploma.

Courses are taken at the Higher Level (HL) or Standard Level (SL).

Currently, we have 51 full Diploma Seniors, 200 Course Seniors and 97 Juniors set to take an exam this year.

We have 62 full Diploma Juniors.
IB Assessments

- IB exams generally have two components, the external assessment (taken in May and grade externally by the IB) and the internal assessment (IA) graded by Edison teachers and a sample moderated by the IB.
IB Courses at Edison

Studies in Language and Literature

IB English HL: Literature

IB English SL and HL: Language and Literature

IB Spanish SL: Language and Literature

2 year courses
Example of an IB Language Assessment

Answer one essay question only. You must base your answer on both of the part 3 works you have studied. Answers which are not based on a discussion of both part 3 works will not score high marks. Your answer should address the ways in which language and context contribute to your reading of each work.

1. Identify some of the forms intolerance can take, and discuss how its effects on both the victims and the intolerant are presented in the two works you have studied.

2. Often the appeal for the reader of a literary work is the atmosphere a writer creates (for example, peaceful, menacing or ironic). Discuss some of the ways atmospheres are conveyed and to what effect in the two works you have studied.

3. Writers often choose words, phrases and names of characters and places not only for their literal meaning, but for further meanings that they may suggest to the reader. With reference to the two works you have studied, discuss how such words and their associations contribute to your understanding and appreciation of the works.

4. In what way(s) can the term “artificial” be applied to the two works you have studied?

5. Referring to the two works you have studied, discuss both how and why the text invites the reader to identify with situations, characters and/or ideas.
Language Acquisition

• IB Spanish
• IB French
• IB Latin
• IB Chinese

All are two year courses, all have an SL or HL option
Sección A

Realiza una de las tareas siguientes. Escribes entre 250 y 400 palabras.

1. **Diversidad cultural**

   En la clase de Teoría del Conocimiento se ha debatido sobre el concepto de belleza humana en las distintas regiones del mundo. Escribes una entrada de blog donde expliques qué es para ti una persona bella, más allá de la raza y la cultura a la que pertenezca.

2. **Costumbres y tradiciones**

   En tu colegio se organiza una presentación de objetos y productos típicos de un país hispanohablante. Escribe el texto para la presentación del producto que vas a llevar para mostrar a tus compañeros e incluye el motivo por el que lo has elegido.

3. **Salud**

   Siempre te ha interesado la medicina social y deseas colaborar en campañas vinculadas con la salud de las poblaciones más pobres. Escribe una carta al director de una ONG (Organización No Gubernamental) dedicada a este tema ofreciéndote como voluntario/a.
Individuals and Societies

AKA Social Studies in the US

IB History of the Americas (11th Grade) and 20th Century Topics HL (12th Grade) 2 year course

Electives: IB Psychology, IB Social and Cultural Anthropology, IB Business Management

All electives are one year courses.
Assessments in Individuals and Societies

IB Social and Cultural Anthropology Sample Question

1. To what extent have changes in economic organization altered one of the following?
   - kinship relations
   - gender relations
   - class relations

2. Examine the relationship between identity and religion.

3. Discuss how one of the following has led to transformations in social relations:
   - globalization
   - post-colonialism
   - exchange

4. Examine the effects of changing environmental conditions on society.

5. Discuss the relationship between population movement and conflict.

SECTION B

IB History Sample Question

Emergence of the Americas in global affairs 1880–1929

9. Compare and contrast the US policies of the Big Stick and Moral Diplomacy.


The Mexican Revolution 1910–1940

11. “Zapata was more revolutionary than Villa.” Discuss.

12. Evaluate the impact of US efforts to influence the Mexican Revolution.
Sciences

IB Physics HL
IB Biology HL
IB Chemistry SL (student can start IB Chem I in 10th grade)
All 2 year courses

IB Environmental Systems and Societies SL (one year)
1. A company designs a spring system for loading ice blocks onto a truck. The ice block is placed in a holder H in front of the spring and an electric motor compresses the spring by pushing H to the left. When the spring is released the ice block is accelerated towards a ramp ABC. When the spring is fully decompressed, the ice block loses contact with the spring at A. the mass of the ice block is 55 kg.

![Diagram of spring system](image)

Assume that the surface of the ramp is frictionless and that the masses of the spring and the holder are negligible compared to the mass of the ice block.

(a) (i) The block arrives at C with a speed of 0.90 ms⁻¹. Show that the elastic energy stored in the spring is 670 J.

(ii) Calculate the speed of the block at A.

(b) Describe the motion of the block

   i) from A to B with reference to Newton’s first law

   ii) from B to C with reference to Newton’s second law

2. (a) Draw the Lewis (electron dot) structures of oxygen, $O_2$, ozone, $O_3$, and hydrogen peroxide, $H_2O_2$.

(b) Deduce, giving a reason, the relative lengths of the oxygen to oxygen bonds in oxygen and hydrogen peroxide.

(c) Predict, with a reason, the O-O-O bond angle in $O_3$. 

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**IB SL Chemistry Sample Question**

**IB HL Physics Sample Question**
Mathematics

Must take Algebra II by 10th grade

IB Math Studies SL
IB Mathematics SL
IB Mathematics HL

All are two year courses
8. A rectangle has dimensions \((5 + 2x)\) metres and \((7 - 2x)\) metres.

(a) Show that the area, \(A\), of the rectangle can be written as \(A = 35 + 4x - 4x^2\).

(b) The following is the table of values for the function \(A = 35 + 4x - 4x^2\).

<table>
<thead>
<tr>
<th>(x)</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>(A)</td>
<td>-13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(p)</td>
<td></td>
<td>27</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(q)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(i) Calculate the values of \(p\), \(q\), \(r\) and \(s\).

(ii) On graph paper, using a scale of 1 cm for 1 unit on the \(x\)-axis and 1 cm for 5 units on the \(A\)-axis, plot the points from your table and join them up to form a smooth curve.

(c) Answer the following, using your graph or otherwise.

(i) Write down the equation of the axis of symmetry of the curve,

(ii) Find one value of \(x\) for a rectangle whose area is 27 \(m^2\).

(iii) Using this value of \(x\), write down the dimensions of the rectangle.

(d) (i) On the same graph, draw the line with equation \(A = 5x + 30\).

(ii) Hence or otherwise, find the coordinates of the intersection of the line with the parabola.
The Arts

• Visual Arts SL and HL (two years)

• IB Theatre SL and HL (two years)

IB Music and IB Film are offered, but need more students to sign up in order to run.
IB Theory of Knowledge

- Available to students that are not full IB spring semester junior year, fall semester senior year
- How do you know what you know?

1. “It is only knowledge produced with difficulty that we truly value.” To what extent do you agree with this statement?

2. “Facts are needed to establish theories but theories are needed to make sense of facts.” Discuss this statement with reference to two areas of knowledge.

3. Should key events in the historical development of areas of knowledge always be judged by the standards of their time?

4. “In the production of knowledge, traditions of areas of knowledge offer correctives for ways of knowing.” To what extent do you agree with this statement?

5. Given access to the same facts, how is it possible that there can be disagreement between experts in a discipline? Develop your answer with reference to two areas of knowledge.

6. “Humans are pattern-seeking animals and we are adept at finding patterns whether they exist or not” (adapted from Michael Shermer). Discuss knowledge questions raised by this idea in two areas of knowledge.
Extended Essay

3000-4000 word essay, done through TOK
On a topic of choice
Externally assessed by IB

Recent “A” Extended Essay Questions at Edison

How does the invention of the constructed language of Elvish aid the progression of The Silmarillion by J.R.R Tolkien?
Which historical narrative most accurately explains the nature of the First Indochina War, 1946-54?
How and why have the policies of quarantine and isolation changed since their first institutionalized use during the Bubonic Plague of the 14th Century?
Two IB Coursework Options

• **IB Course Student**
  Students take IB courses in their strengths and test in those courses only during their junior and/or senior years. Students take honors or regular courses for their remaining classes.

• **Full IB Diploma**
  Starts in 11\textsuperscript{th} grade, two year program
  Most rigorous academic program at Edison
  Must take 3 Higher Level (HL) and 3 Standard Level (SL) IB Courses across the curriculum.
  Must take IB Theory of Knowledge, do the Extended Essay, and Creativity, Action and Service (CAS)
Why take an IB Diploma Class?

• Prepare for college level work
• Improve writing skills
• Improve critical thinking skills
• Be challenged and take a risk!
• Learn how to learn while it’s still free!
From the Student Perspective...

Edison Alumni discuss the value of the IB after high school:

https://youtu.be/2GZbS6S6aIA
Advantages and Disadvantages of the IB Diploma

Advantages: shows rigor in the schedule for college admissions, promotes a well-rounded student, prepares fully for college, teaches time management and stress management

Disadvantages: It is rigorous and challenging. Period.
### Some Statistics on College Acceptance for full IB Diploma Candidates

<table>
<thead>
<tr>
<th>University or college</th>
<th>IB students acceptance rate</th>
<th>Total population acceptance rate</th>
<th>IB students vs total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Florida</td>
<td>82%</td>
<td>42%</td>
<td>+40%</td>
</tr>
<tr>
<td>Florida State University</td>
<td>92%</td>
<td>60%</td>
<td>+32%</td>
</tr>
<tr>
<td>Brown University</td>
<td>18%</td>
<td>9%</td>
<td>+9%</td>
</tr>
<tr>
<td>Stanford University</td>
<td>15%</td>
<td>7%</td>
<td>+8%</td>
</tr>
<tr>
<td>Columbia University</td>
<td>13%</td>
<td>9%</td>
<td>+4%</td>
</tr>
<tr>
<td>University of California - Berkeley</td>
<td>58%</td>
<td>26%</td>
<td>+32%</td>
</tr>
<tr>
<td>Harvard University</td>
<td>10%</td>
<td>7%</td>
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</tr>
<tr>
<td>New York University</td>
<td>57%</td>
<td>30%</td>
<td>+27%</td>
</tr>
<tr>
<td>University of Michigan - Ann Arbor</td>
<td>71%</td>
<td>51%</td>
<td>+20%</td>
</tr>
<tr>
<td>University of Miami</td>
<td>72%</td>
<td>30%</td>
<td>+42%</td>
</tr>
</tbody>
</table>

Source: IBDP Graduate Destinations Survey 2011/12 conducted by i-graduate International Insight
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<th>IB students vs total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornell University</td>
<td>31%</td>
<td>18%</td>
<td>+13%</td>
</tr>
<tr>
<td>Duke University</td>
<td>28%</td>
<td>16%</td>
<td>+12%</td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>24%</td>
<td>14%</td>
<td>+10%</td>
</tr>
<tr>
<td>Yale University</td>
<td>18%</td>
<td>7%</td>
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</tr>
<tr>
<td>University of Central Florida</td>
<td>90%</td>
<td>47%</td>
<td>+43%</td>
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<tr>
<td>Boston University</td>
<td>70%</td>
<td>58%</td>
<td>+12%</td>
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<tr>
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<td>UNC Chapel Hill</td>
<td>63%</td>
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<td>+31%</td>
</tr>
<tr>
<td>Princeton University</td>
<td>16%</td>
<td>8%</td>
<td>+8%</td>
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</table>
If you want to do the IB Diploma. . .

• Contact Melanie Morris, MMorris@fcps.edu, for an appointment to do a personalized 4-Year Plan BEFORE registration for classes.

• If you want to take individual IB classes, work closely with your counselor to choose those that best work with your strengths.