

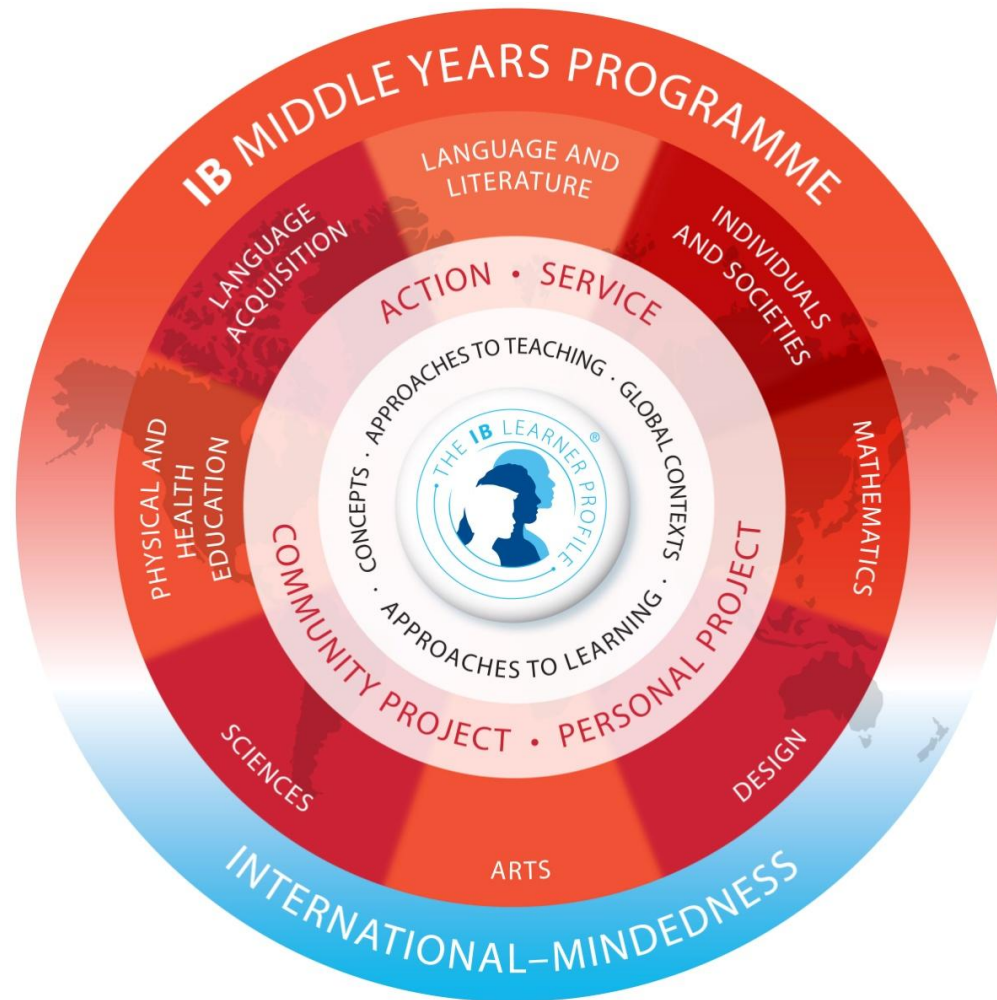
# Developments in on-screen assessment for IB programmes

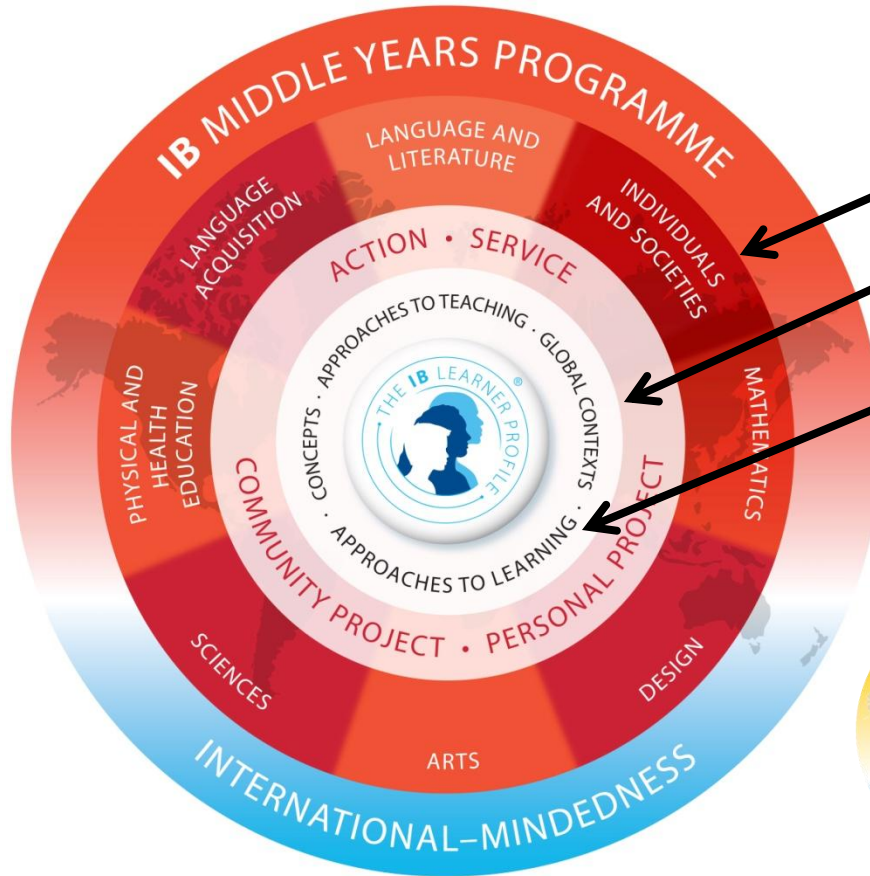
Richard Penrose, head of marking  
and Dr Robert Harrison, head of MYP  
development

# Coming soon! E-assessments

- One of the most highly-anticipated outcomes of MYP: Next chapter...
- The first task trial is now in progress in about 50 schools around the world. After the incorporation of lessons learned, we expect to be able to demonstrate the look and feel of the on-screen examinations in the first quarter of 2014.
- Details about the 2015 examination offer, including example tasks and test blueprints, will be available in *Guide to MYP eAssessment* in August 2014.

# Connecting the programme model to innovations in MYP external assessment



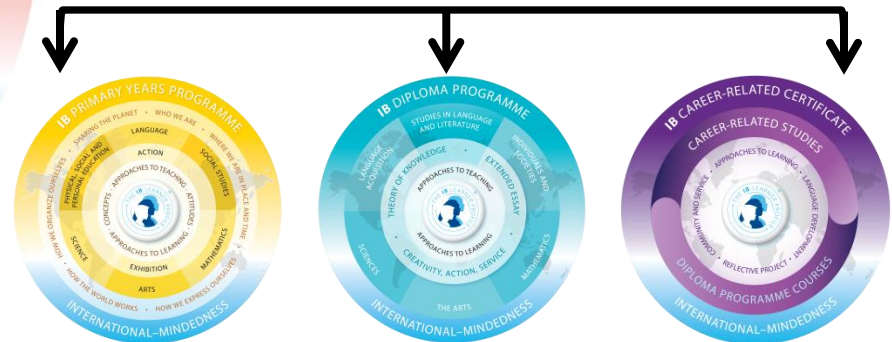


**broad and balanced**

**global contexts**

**approaches to learning**

**programme alignment**



**First teaching September 2014**

# MYP key concepts (interdisciplinary)

Aesthetics

Change

Communication

Communities

Connections

Creativity

Culture

Development

Form

Global  
interactions

Identity

Logic

Perspective

Relationships

Time, place  
and space

Systems

Subject group	Sample related concepts
<b>Language and literature</b>	character, theme, genre
<b>Language acquisition</b>	word choice, accent, idiom, voice
<b>Individuals and societies</b>	globalization, power, sustainability
<b>Sciences</b>	energy, transformation, evidence
<b>Mathematics</b>	measurement, pattern, representation
<b>Arts</b>	composition, style, role, intent
<b>Physical and health education</b>	balance, movement, systems
<b>Design</b>	form, function, innovation



# Developing international mindedness

## MYP global contexts

identities and relationships  
dimensions of space and time  
personal and cultural expression  
scientific and technical innovation  
globalization and sustainability  
fairness and development

# ATL skill clusters - subject group objectives - eAssessment

ATL skill categories	MYP skill clusters
Communication	I. Communication
Social	II. Collaboration
Self management	III. Organization
	IV. Affective
	V. Reflection
Research	VI. Information literacy
	VII. Media literacy
Thinking	VIII. Critical thinking
	IX. Creative thinking
	X. Transfer



# Curriculum benefits of eAssessment

- Additional IB resources for research and programme development
- Stronger and more reliable measures of accountability
- Modeling good internal assessment practice
- Building assessment expertise among IB educators
- Establishing global communities of practice in curriculum development, teaching practice and summative assessment
- Sharper focus on interdisciplinary learning, global engagement and the IB learner profile

## Why eAssessment?

- Authentic and rigorous assessment of MYP objectives
- Current take up of MYP certificate
- Widespread use of alternative qualifications among MYP schools
- Wider recognition of MYP certificate
- Support progression to Diploma Programme

## How eAssessment?

- On screen examinations for language and literature, individuals and societies, sciences, mathematics and interdisciplinary learning
- ePortfolios for language acquisition, arts, design and PHE

# Demonstration of trial eAssessments



## Please enter your personal details!

---

First name

Last name

School Code

---

**SUBMIT**



Question 1 (16 marks)



1 (16 marks)

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Choose one of the following prompts and write a response based on the image provided.

- a) Write an internal monologue expressing the thoughts and feelings of a narrator involved in this scene.
- b) **Narrate** the events which follow on from the moment shown in the image.
- c) Imagine you are the person in this image. **Describe** what you can see.

c)

I am looking through a window.....5467



Scroll down to continue!

## Background Resources

This task assesses your understanding of the concept of global interactions, and the ways that people come into conflict with each other. The task focuses specifically on exploring the causes and consequences of conflict. Please note: The following sources refer to specific conflicts such as the Second World War or the American Civil War. You do not need to have studied these specific conflicts to be able to answer the task questions.

- 0% 1 (6 marks) ^
- 0% 2 (12 marks) ^
- 0% 3 (18 marks) ^

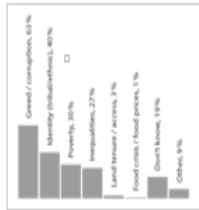
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0%

### Question 1 (6 marks)



According to the sources, what are 3 causes and 3 consequences of conflict?

0%

### Question 2 (12 marks)



Compare and contrast the origins, purpose, value and limitations of sources A and B.



0%

### Question 1 (6 marks)



0%

1 (6 marks)



0%

2 (12 marks)



0%

3 (18 marks)



< Status Map

100%



0%

### Question 1 (6 marks)

A B C D E



[First World War cemetery at Verdun, taken from <http://www.istockphoto.com>. Date accessed 20th May 2013.]

According to the sources, what are 3 causes and 3 consequences of conflict?

Causes:

1.  (1 mark)

2.  (1 mark)

3.  (1 mark)

Consequences:

1.  (1 mark)

2.  (1 mark)

3.  (1 mark)

0%

Question 3 (18 marks)



A B C D E

Causes of the American Civil War

*"The Northern and Southern sections of the United States developed along different lines. The South remained an economy based mostly on agriculture, while the North became more and more industrialised. Different social cultures and political beliefs developed. All of this led to disagreement on issues such as taxes, tariffs and internal improvements as well as states rights versus federal rights. The burning issue that led to the disruption of the union, however, was the debate over the future of slavery."*

[*"Causes of the American Civil War"*, taken from [www.historynet.com/causes-of-the-civil-war](http://www.historynet.com/causes-of-the-civil-war). Date accessed 20th May 2013.]

"Individual people are the main cause of wars and conflicts".

**To what extent do you agree with this claim? Answer with reference to the sources and also to your own knowledge of conflicts you have studied.**



- 0% 1 (6 marks) ^
- 0% 2 (12 marks) ^
- 0% 3 (18 marks) ^

< Status Map

100%



Question 2 (8 marks)

Question 2a (2 marks)

The following video shows bacteria dividing.



Construct a table to record time and population data. Count and record the number of bacteria cells present at suitable time intervals during the growth of this population.

Time	Number of bacteria
0	2
1	4
2	8



Question 2b (2 marks)

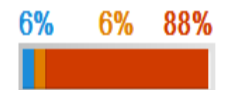
Select the most appropriate method from the following choices and present your data. Label your graph and give it an

Scroll down to continue!

Background

- 0% 1 (4 marks) ^
- 0% 2 (8 marks) ^
- 0% 3 (2 marks) ^
- 0% 4 (8 marks) ^
- 0% 5 (8 marks) ^

Status Map





### Question 2b (2 marks)

Select the most appropriate method from the following choices and present your data. Label your graph and give it an appropriate title.

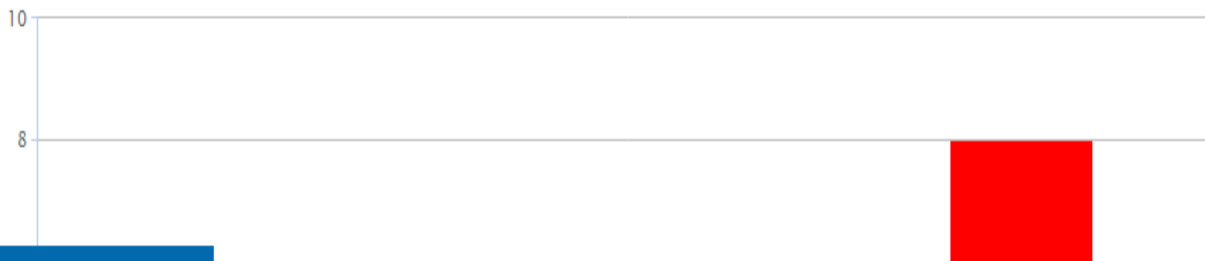


#### Labels

x-axis	Time	0	1	2
y-axis	Number of bacteria	2	4	8

#### Title

Please enter a title



#### Background

- 0% 1 (4 marks) ^
- 2 (8 marks) ^
- 0% 3 (2 marks) ^
- 0% 4 (8 marks) ^
- 0% 5 (8 marks) ^

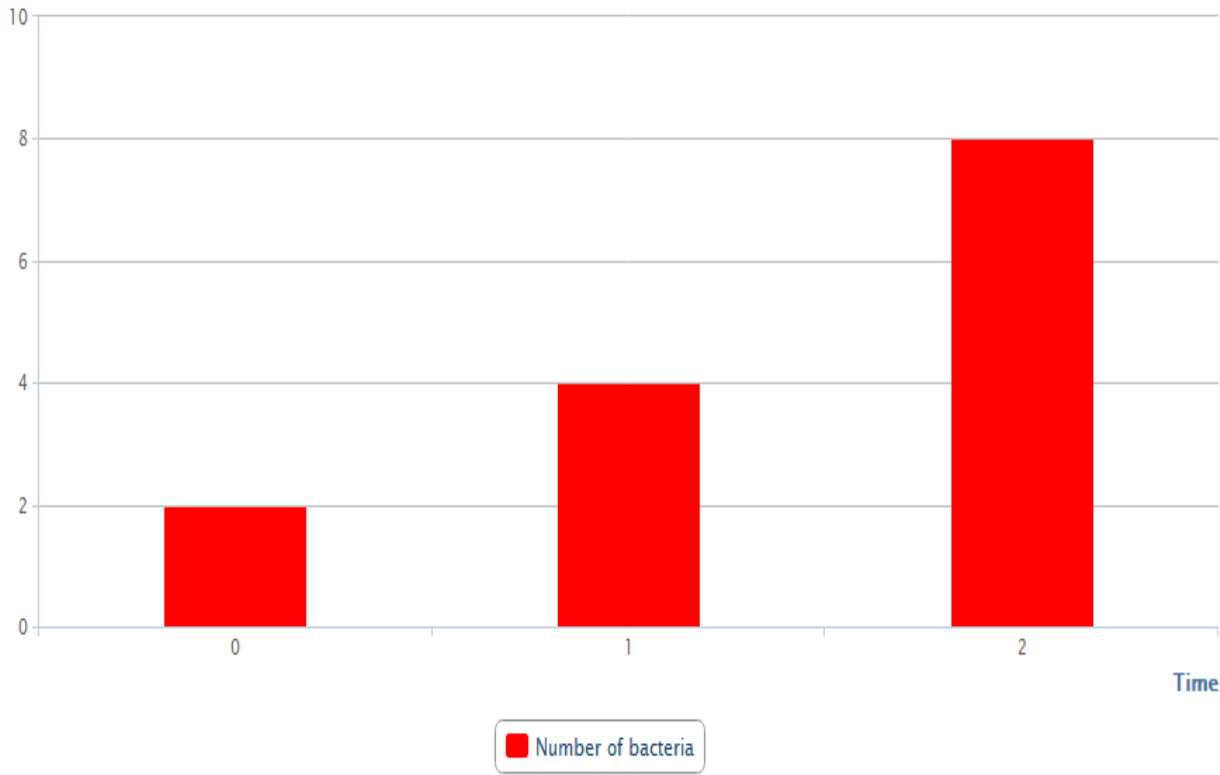
#### Status Map

6% 6% 88%



Title

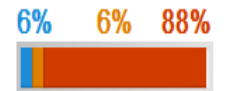
Please enter a title



Background

- 0% 1 (4 marks) ^
- 2 (8 marks) ^
- 0% 3 (2 marks) ^
- 0% 4 (8 marks) ^
- 0% 5 (8 marks) ^

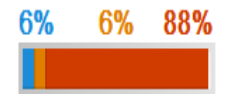
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Background

- 0% 1 (4 marks) ^
- 2 (8 marks) ^
- 0% 3 (2 marks) ^
- 0% 4 (8 marks) ^
- 0% 5 (8 marks) ^

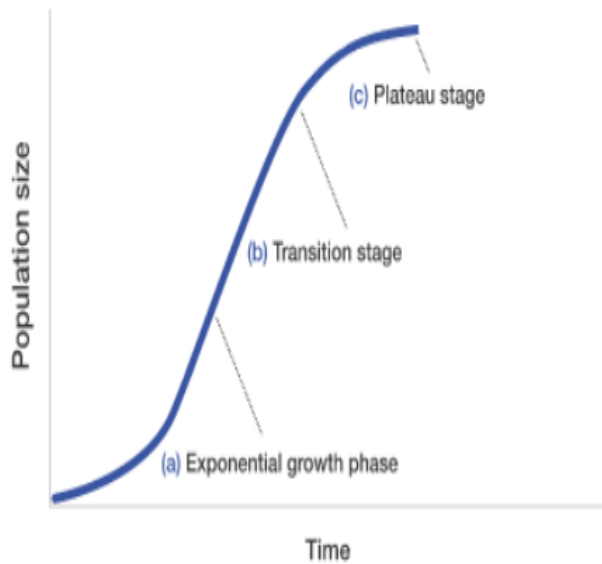
< Status Map



0% Question 2c (2 marks)

The following graph shows a population growth curve model. This predicts the expected changes in the number of individuals in a population over time.

Population growth:



Compare the graph you drew in part (b) to the growth curve, indicating where it is similar.



0%

Question 5 (8 marks)

Background

Q1

Q2

Q3

Q4 Pic

Q4 Video



A cholera epidemic followed the 2010 earthquake in Haiti. Cholera broke out in Haiti in October 2010. Since then there has been substantial medical research, including DNA analysis on the strain of cholera found in Haiti, which identified UN peacekeepers from Nepal as the source of the disease. Cholera is an infection in the small intestine caused by the cholera bacterium, *Vibrio*

All of the materials used in this task are displayed opposite. Review them before answering the question below.

**Evaluate two of the methods for preparing drinking water explored in this task.**



Background

0% 1 (4 marks)

2 (8 marks)

0% 3 (2 marks)

0% 4 (8 marks)

0% 5 (8 marks)

< Status Map

6% 6% 88%





## Background

This task focuses on the key concept of relationships within the global context of globalisation and sustainability. In this real world problem, you will explore urban planning and infrastructure by studying the flow of traffic in cities around the world.

- 0% 1 (3 marks) ^
- 0% 2 (6 marks) ^
- 0% 3 (6 marks) ^
- 0% 4 (21 marks) ^

### < Status Map

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0%

## Question 1 (3 marks)



Traffic at a junction in Glasgow (Scotland). Record and estimate traffic flow.

0%

## Question 2 (6 marks)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Population	100	105	110	115	120	125	130	135	140	145
Income	100	105	110	115	120	125	130	135	140	145
Unemployment	100	105	110	115	120	125	130	135	140	145
Healthcare	100	105	110	115	120	125	130	135	140	145
Education	100	105	110	115	120	125	130	135	140	145

Select a graph to present the traffic data and explain your choice.



Scroll down to continue!

The following video shows traffic at a junction in Glasgow (Scotland) for a twelve second period.



Write down the number of cars passing through the junction in this time period.

1a)

Please enter your answer here

- 0% 1 (3 marks) ^
- 0% 2 (6 marks) ^
- 0% 3 (6 marks) ^
- 0% 4 (21 marks) ^

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Question 1b (2 marks)

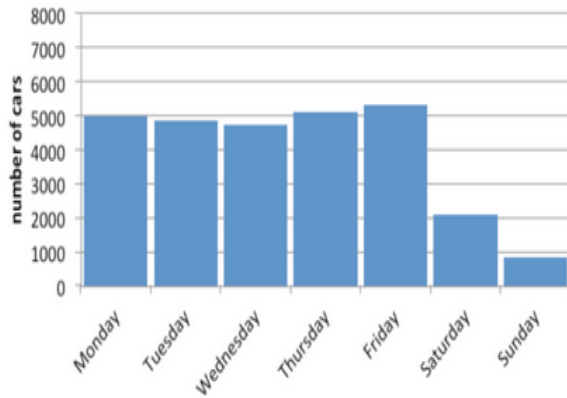
Calculate an estimate of the number of cars that would pass through this junction in the next five minutes.

Working Box:

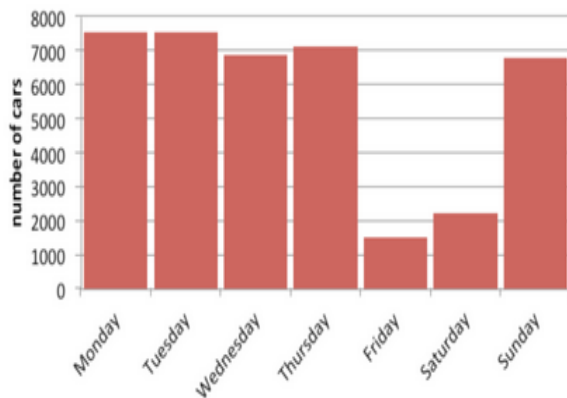
Please enter your answer here

The following graphs show the number of cars passing through busy junctions in Paris and Dubai, again between 8:00 and 9:00 for the same seven-day period.

Paris



Dubai



0%

Question 3a (3 marks)

Compare and contrast the data for Paris and Dubai.

3a)

Please enter your answer here



0%

1 (3 marks)

0%

2 (6 marks)

0%

3 (6 marks)

0%

4 (21 marks)

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Question 3b (3 marks)

Outline two factors which might affect the number of cars passing through the junctions.

Factor 1:

Please enter your answer here



Scroll down to continue!

A researcher counts the number of cars passing through a junction in Mexico City. As each car passes, the researcher registers the event with a click on an electronic tally counter. The counter automatically stores the number of clicks at the end of each 1 minute period. The following table shows the data that the researcher collected.

Time of day at end of reading	time period registered on counter	number of cars	Time of day at end of reading	time period registered on counter	number of cars
8:36	1	64	8:54	19	67
8:37	2	66	8:55	20	65
8:38	3	67	8:56	21	64
8:39	4	69	8:57	22	66
8:40	5	68	8:58	23	63
8:41	6	69	8:59	24	60
8:42	7	71	9:00	25	61
8:43	8	70	9:01	26	59
8:44	9	72	9:02	27	56
8:45	10	70	9:03	28	55
8:46	11	71	9:04	29	56
8:47	12	69	9:05	30	53
8:48	13	67	9:06	31	51
8:49	14	68	9:07	32	47
8:50	15	67	9:08	33	45
8:51	16	68	9:09	34	44
8:52	17	69	9:10	35	43
8:53	18	66	9:11	36	37

Write down the modal class.

Please enter your answer here

- 0% 1 (3 marks) ^
- 0% 2 (6 marks) ^
- 0% 3 (6 marks) ^
- 0% 4 (21 marks) ^

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0%

Question 4b (5 marks)

Determine the quadratic function used to model the data.

$+ \quad - \quad \cdot \quad \frac{\quad}{\quad} \quad \sqrt{\quad} \quad \int \quad dx \quad \int \quad dx$

A researcher counts the number of cars passing through a junction in Mexico City. As each car passes, the researcher registers the event with a click on an electronic tally counter. The counter automatically stores the number of clicks at the end of each 1 minute period. The following table shows the data that the researcher collected.

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8:38	3	67	8:56	21	64
8:39	4	69	8:57	22	66
8:40	5	68	8:58	23	63
8:41	6	69	8:59	24	60
8:42	7	71	9:00	25	61
8:43	8	70	9:01	26	59
8:44	9	72	9:02	27	56
8:45	10	70	9:03	28	55
8:46	11	71	9:04	29	56
8:47	12	69	9:05	30	53
8:48	13	67	9:06	31	51
8:49	14	68	9:07	32	47
8:50	15	67	9:08	33	45
8:51	16	68	9:09	34	44
8:52	17	69	9:10	35	43
8:53	18	66	9:11	36	37

Write down the modal class.

Please enter your answer here



Question 4b (5 marks)

Determine the quadratic function used to model the data.

$$y = -0.0478x^2 + 1.02x + 64.5$$



- 0% 1 (3 marks) ^
- 0% 2 (6 marks) ^
- 0% 3 (6 marks) ^
- 4 (21 marks) ^

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13% 87%



### Background Resources



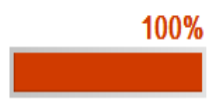
#### Congestion and Sanitation

About 600,000 people in Kenya's capital live in the Kibera neighbourhood, East Africa's largest informal settlement. Congestion is a major problem. There is not even the space to build toilets.

### Background

- 0% 1 (8 marks) ^
- 0% 2 (2 marks) ^
- 0% 3 (10 marks) ^

### < Status Map



0%

#### Question 1 (8 marks)



Describe four problems experienced by residents of the Kibera neighbourhood.

0%

#### Question 2 (2 marks)



Write a 6-12 word home page headline that will engage readers and encourage them to read more of your website.

## Background Resources



Reading

Video



About 600,000 people in Kenya's capital live in the Kibera neighbourhood, East Africa's largest informal settlement.

Congestion is a major problem. There is not even the space to build toilets.

Some frustrated residents use polythene bags commonly known as "flying toilets" to dispose of human waste.

Background

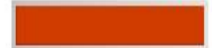
0% 1 (8 marks)

0% 2 (2 marks)

0% 3 (10 marks)

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Reading Video A **B** C D E

Deaths resulting from diarrheal cases per region

Region	Diarrheal cases	Deaths
South Asia	175,100,000	167,471
East Asia	194,700,000	124,063
Middle East	25,600,000	25,891
Sub-Saharan Africa	247,400,000	249,213
Latin America and Caribbean	26,200,000	21,970

You are the subject matter expert responsible for organizing information that developers will use to create a web site for a new not-for-profit organization. The organization aims to improve the quality of life for residents of densely populated urban zones in low income countries.

**Using the task background material and appropriate terminology from your study of more than one discipline describe four problems experienced by residents of the Kibera neighbourhood.**

1) (2 Marks)

Please enter your answer here

2) (2 Marks)

Please enter your answer here

3) (2 Marks)

Please enter your answer here

Background

0% 1 (8 marks) ^

0% 2 (2 marks) ^

0% 3 (10 marks) ^

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Reading

Video

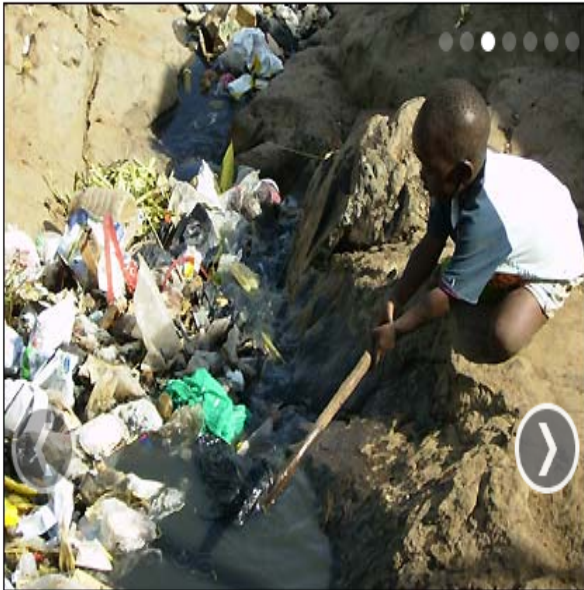
A

B

C

D

E



Due to the lack of a solid waste management system, flying toilets become a hazard during the rainy season, as water sources get contaminated.

Children and women are most vulnerable to infections. A report by the aid agency Amref says incidents of cholera, typhoid and other waterborne diseases are rampant.

Amref has constructed safe water points within Kibera. At the moment, there is an average of one toilet for more than 2,000 people.

You are the subject matter expert responsible for organizing information that developers will use to create a web site for a new not-for-profit organization. The organization aims to improve the quality of life for residents of densely populated urban zones in low income countries.

Write a 6-12 word home page headline that will engage readers and encourage them to read more of your website. State why developers should use this headline in their web page design.

Please enter your answer here

Background

0% 1 (8 marks)

0% 2 (2 marks)

0% 3 (10 marks)

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Reading Video A B C D E



0%

### Question 3a (4 marks)

You are the subject matter expert responsible for organizing information that developers will use to create a web site for a new not-for-profit organization. The organization aims to improve the quality of life for residents of densely populated urban zones in low income countries.

Using the task background material and your own knowledge, suggest two courses of principled action that could improve the quality of life for people living in low-income urban environments.

1) (2 Marks)

Please enter your answer here

2) (2 Marks)

Please enter your answer here

Background

0% 1 (8 marks)

0% 2 (2 marks)

0% 3 (10 marks)

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LifeStraw is an instant microbiological water purifier. Studies indicate that the product removes at least 99.9 per cent of all bacteria, viruses and parasites. It also removes dirt from water.

The technology does not require electricity or batteries, making it ideal for use in many rural settings.

Those who receive the filter no longer need to treat water by boiling it using wood fuel – a traditional source of greenhouse gasses.

Justify your two suggestions in part 3a)

Please enter your answer here



0%

Question 3c (4 marks)

Evaluate one of your proposed courses of action in terms of its strengths and limitations.

Please enter your answer here

Background

- 0% 1 (8 marks) ^
- 0% 2 (2 marks) ^
- 0% 3 (10 marks) ^

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## The assessment has now ended

---

Your time for completing the assessment has elapsed.  
Your responses have been saved and sent for marking.



**Please leave the computer as it is. Do not attempt to logout or shutdown.**

Follow any additional instructions from the invigilator.

**QUIT!**

# October trial (English only)

Monday 7 October to Friday 25 October 2013

About 55 schools taking part

Two 40 minute tasks per school from:

English A

History

Biology

Mathematics (standard only)

Interdisciplinary

About 20 to 50 students per task in each school

Feedback from coordinators, teachers and students

Students' responses returned to schools with markschemes

## December trial (French only)

Monday 2 December to Friday 13 December

No restriction on number of schools (out of 102)

96 in Canada

5 in Morocco

1 in Egypt

Also two 40 minute tasks per school:

French A

History

Biology

Mathematics (standard only)

Interdisciplinary

Otherwise much the same as the October trial



# How is Certification achieved?

To achieve the *IB MYP Certificate* a candidate must:  
Obtain a grade 3 or higher in six subjects from different subject groups, including:

1. Language and literature
2. Language acquisition
3. Individuals and societies
4. Science
5. Mathematics (standard or extended)
6. One from: Arts, Physical and health education or Design

Obtain a grade 3 or higher in interdisciplinary onscreen exam

Obtain a grade 3 or higher in Personal Project

Complete the requirements for Community Service

Gain a minimum of 28 points.