# Delegate Booklet
# Course Title: Getting ready to teach International GCSE Human Biology 2018
# 18IBAS01



Prepared by Pack Production 2016

## About this event

**Course Title:** Getting ready to teach International GCSE Human Biology 2018
**Course Code: 18IBAS01**

## Aims and Objectives of the event

- Consider the structure, content and assessment of this qualification, and the support available to guide you through these changes
- Consider the key changes from 4HB0
- Explore possible teaching and delivery strategies
- Have the opportunity to network, discuss best practice, take away resources to help with your planning and delivery, and share ideas with other teachers
- Learn about the introduction of the new 9–1 grading scale
- Respond to requests for additional support on maths and practical skills from previous training sessions

Agenda

| Time | Item |
|---|---|
| 9.30 – 10.00 | Welcome<br>Tea & Coffee |
| 10.00 | Agenda & Introductions |
| 10.15 – 11.00 | International GCSE Features / Introduction to the new Edexcel International GCSE in Human Biology |
| 11.00 – 11.30 | How the papers are developed |
| 11.30 – 12.30 | Mathematics for Human Biology |
| 12.30 – 1.15 | Lunch |
| 1.15 – 2.30 | Practical requirements and skills |
| 2.30 – 3.30 | Presenting and analysing data |
| 3.30 – 3.45 | Support and resources |
| 3.45+ | Final questions |

Pearson

## Activity 1 paper development

**Purpose: To develop understanding of how AOG are used to produce papers.**

- Improve understanding of paper construction
- Improve knowledge and understanding of Assessment Objectives
- Look at different type of questions

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### Look at SAM paper 1

Look at AOG grid provided.

| | | Assessment Objectives | | | | | | Quant Skills | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | |
| 2 | Q | Total marks | New Content spec ref | AO1 36 +/-2 | AO2 36+/-2 | AO3 18+/-1 | AO Strand | Grade 1-3 24 | Grade 4-6 33 | Grade 7-9 33 | Maths Skill ref | No. of maths marks | Recall marks | Multiple Choice Question marks | Question Type |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | 1 | 7 | 5.9 9.4 9.7 11.8 | 7 | | | | 3 | 4 | | | | 7 | | Short Objective |

Question 1 is classified as all AO 1

(a) What does that mean?

It is also classified as all recall

(b)What does that mean?

It also includes the appropriate specification references

**Look at question 2 from new SAM paper 1**

(c) Complete the AOG grid to show

- The marks for each section
- The new specification references
- The AO for each item
- The target grade for each item
- Maths marks
- Maths skill reference from specification

- Compare your suggestions with others on your table.

**Look at question 3 from new SAM paper 1**

(d) Complete the AOG grid to show

- The marks for each section
- The new specification references
- The AO for each item
- The target grade for each item
- Maths marks
- Maths skill reference from specification

| Q | Total marks | New Conten | AO1 36 +/-2 | AO2 36+/-2 | AO3 18+/-1 | AO Strand | Grade 1-3 | Grade 4-6 | Grade 7-9 33 | Maths Skill | No. of maths | Recall marks | Multip le | Questi on |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| 1 | 7 | 5.9 9.4 9.7 11.8 | 7 | | | | 3 | 4 | | | | 7 | | Short Objecti |
| 2 a | | | | | | | | | | | | | | |
| b | | | | | | | | | | | | | | |
| c | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 3 a | | | | | | | | | | | | | | |
| b | | | | | | | | | | | | | | |
| c i | | | | | | | | | | | | | | |
| ii | | | | | | | | | | | | | | |
| (iii) | | | | | | | | | | | | | | |

**Activity 2 Mathematics skills**

**Purpose: To develop understanding Mathematical skills will be examined on new papers.**

- Improve understanding of paper construction
- Improve knowledge and understanding of Mathematical skills assessment
- Look at different type of mathematics skills and opportunities for teaching these skills

# (a) What are the minimum number of Maths marks on Paper 1 ?

# (b) Look at the Mathematics skills listed in the Specification

# For each skill:

# Think of an appropriate example of a content area or specification reference where it might be taught and therefore examined.

# Compare your list to other delegates on your table.

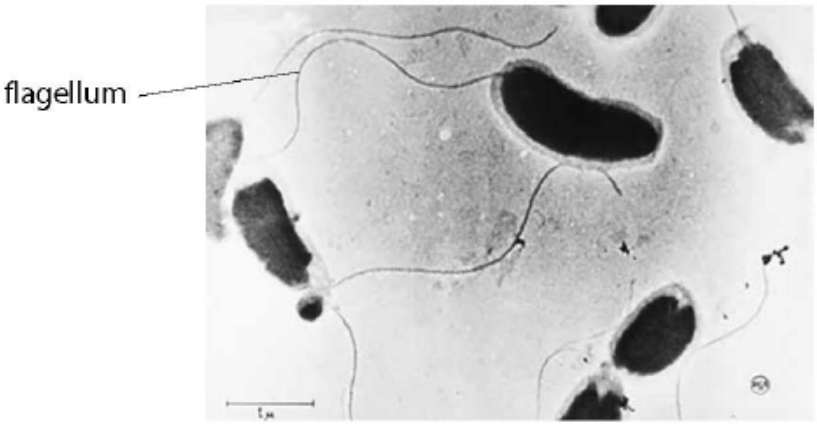
**Activity 3 Mathematics skills**

**Purpose: To look at how Mathematical skills will be examined on new papers.**

- Improve knowledge and understanding of Mathematical skills assessment
- Look at different type of mathematics skills and opportunities for teaching these skills

**Example 1 - Question 5c**

(c) Figure 7 shows some *Vibrio cholerae*, the bacteria that cause cholera.




Magnification ×8000

(Source: Corbis)

**Figure 7**

The length of one flagellum on Figure 7 is 68 mm.

Calculate the length of the flagellum in μm.

(a) Write a mark scheme for this question

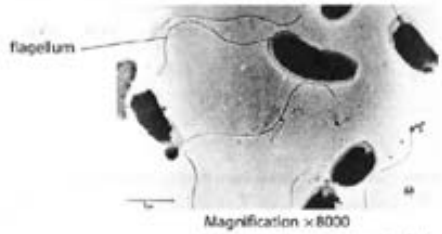
Decide how many marks it is worth

(b) Use your Mark scheme to mark the student example

# Magnification calculations

**Student answers**

(c) Figure 7 shows some *Vibrio cholerae*, the bacteria that cause cholera.




(Source: Corbis)

**Figure 7**

The length of one flagellum on Figure 7 is 68 mm.

Calculate the length of the flagellum in μm.

68 / 8000 =

$8.5 \times 10^{-3}$ μm

(c) Compare your Mark scheme and score with other delegates on your table.

**Activity 4 Practical skills**

**Purpose: To look at how Practical skills will be examined on new papers.**

- Improve knowledge and understanding of Practical skills assessment
- Look at different type of Practical skills and opportunities for teaching these skills

## (a) Look through the list of core practicals

CP1: Investigate the qualitative and quantitative content of vitamin C in food
CP2: Investigate the energy content of food
CP3: Investigate the effect of temperature and pH on enzyme activity
CP4: Investigate the action of immobilised enzymes including the preparation of alginate beads
CP5: Investigate the number and position of sensory receptors, such as touch and temperature receptors in the skin
CP6: Investigate the range of frequency audible to the human ear
CP7: Investigate the difference between inspired and expired air for carbon dioxide concentration
CP8: Investigate the effect of exercise on the rate of breathing and measure lung capacity
CP9: Investigate the effect of exercise on the pulse rate
CP10: Investigate diffusion using a partially-permeable membrane such as Visking tubing

- Identify those that you are least familiar with

- Compare your answer with other delegates

(b) Which practicals do you have the most difficulty teaching?

- Compare your answer with other delegates

## Activity 5 Experimental design and data analysis

**Purpose: To look at how experimental skills and data analysis will be examined on new papers.**

- Improve knowledge and understanding of experimental skills and assessment
- Review terminology and opportunities for reinforcing understanding of these skills

Are you confident that your students understand the following terms:

Explain what you understand by the following terms :

Variable
Independent
Dependent
Controlled
Validity
Readings
Data
Precise
Accurate
Reliability
Anomalous

## PERSONAL LEARNING

### Things to do:

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### Things to avoid

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**Your ideas:**