



General Certificate of Education  
Advanced Subsidiary Examination  
June 2010

**Human Biology**

**HBI3T/Q10/TN**

**Unit 3T AS Investigative Skills Assignment**

**Teachers' Notes**

**Confidential**

**A copy should be given immediately to the teacher responsible for  
GCE Human Biology**

**Teachers' Notes****CONFIDENTIAL**

These notes should be read in conjunction with *Instructions for the Administration of the Investigative Skills Assignment* on the ISA disk and published on the AQA Website.

**The effect of the intensity of exercise on breathing rate**

Candidates are required to investigate the effect of different intensities of exercise on breathing rate. The exercise to be used is different rates of standing and sitting.

**Materials**

Each candidate needs

- a timer
- a straight-backed chair on which the candidate can sit with both feet flat on the floor
- a suitable place to carry out the standing and sitting activity free from any potential slip hazard

**Managing the Investigation**

The Task Sheet instructs candidates to carry out cycles of standing and sitting at intervals of 5s, 4s, 3s and 2s over one minute periods. These are guideline rates and the teacher may choose different ranges of rates, e.g., from 4 to 1 second intervals according to the level of fitness of individual candidates.

Candidates who are not able to carry out vigorous exercise should be reassured by the teacher that they may invite a friend to carry out that part of this investigation for them. The candidate should guide and supervise the friend as they carry out the exercise.

**The task will need to be trialled before use.**

**One week before sitting Stage 1 of the ISA, teachers may give their candidates the following information.**

You will investigate the effect of exercise on breathing rate.

There should be no further discussion of this topic.

**In this investigation, teachers must not give candidates the following information**

- the length of time over which to record their breathing after exercise
- how long to wait between each one-minute period of exercise.