

HUMAN BIOLOGY
Investigative Skills Assessment

HBI3T/P09/TN

Teachers' Notes

CONFIDENTIAL

The effect of exercise on pulse rate

Candidates are required to carry out an investigation on the effect of exercise on pulse rate.

Materials

In addition to access to general laboratory equipment each candidate needs

- a timer
- a suitable place to carry out a step test.

Managing the investigation

It is suggested that a discussion takes place between the teacher and the candidates. This discussion will lead the candidates to understand that they should

- carry out their step exercise for five different lengths of time
- record their pulse rate at the end of each bout of exercise.

It is suggested that the lengths of time spent exercising are 15, 30, 45, 60, and 75 seconds.

Candidates who are not able to carry out vigorous exercise may be reassured by their teacher that they may invite a friend to carry out that part for them. This person should carry out the exercise under the supervision of the candidate.

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

- the length of time to continue recording their pulse rate after exercise
- how long to wait between bouts of exercise
- how many repeats to carry out.

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

You will be doing an investigation on the effect of exercise on pulse rate.

There should be no further discussion of this topic.