

Essential Skills Wales

Essential Application of Number Skills (EAoNS)

Level 3 Controlled Task

Candidate Pack

Raising Fitness Levels

Version **1.0**

Valid for use until

Candidate name:
Candidate number:
Date registered for EAoNS:
Unique Learner Number (ULN) <i>(if applicable)</i> :
Centre name <i>or</i> number:

Instructions

- Make sure the boxes at the top of this page are filled in with your name, candidate number, ULN (if applicable) and centre name or number.
- Make sure you complete **all** parts of the task.

You have up to **8 hours in total** to complete this controlled task, although that time can be split over a number of sessions. Details of when each session started and ended **must** be recorded below:

Date controlled task started :							
Date controlled task completed <i>(no more than eight weeks later)</i> :							
Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
	<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>
<i>Duration</i>	<i>Duration</i>	<i>Duration</i>	<i>Duration</i>	<i>Duration</i>	<i>Duration</i>	<i>Duration</i>	<i>Duration</i>
Total time spent:							

If more than eight sessions are required, any further dates/durations should be recorded on a separate sheet.

Produced jointly by the four Essential Skills awarding bodies:
 Agored Cymru
 City & Guilds
 Pearson
 WJEC



This task pack contains a scenario, a set of instructions and some source material.

- Make sure you read through the scenario, instructions and source material carefully before you start.
- You will be supervised throughout your time working on this task, although during that time you can use most of the equipment that would normally be available to you in a real-life situation (this may include accessing the internet).
- All work submitted must be **entirely** your own. You are not allowed to be given any help with the skills that are being assessed through this controlled task.
- Make sure you hand in all of your work at the end of **each** session. You are not allowed to take any task materials away with you, or have access to these between sessions.
- Make sure you **sign the declaration** at the back of this pack at the end of your final session working on this task.

Task instructions: Raising Fitness Levels

What do you need to find out?

The scenario

You work on a project to improve people's health and fitness. You are asked to organise a trial for the project and you must decide on a group of people and a region to target initially.

There will be a promotional event where participants try out an activity. You are required to choose the activity and provide information to people about the heart rate that they should be aiming for during exercise.

At the same event, one of your colleagues will lead a 'Step' taster session in an adjacent room. You will need to calculate the maximum number of people that can be accommodated in the taster session.

What you need to do

Part 1

You must plan how you will prepare the information. Your plan must show:

- how you will tackle the problem
- what information you will use and the reason for your choice
- what calculations you could use, and which you choose to do
- why you have chosen these methods
- how you will present the results.

(11 marks)

Part 2

You must:

- use statistics to make relevant comparisons of different groups from the population sample
- present your results and explain your findings in an appropriate way (e.g. complex table, comparative/component bar chart or pie chart, multiple line graph/line graph or complex diagram)
- select a target group to focus on initially, using the results of your comparison to help justify your choice.

(7 marks)

Part 3:

You must:

- calculate the target heart rate for people within your chosen age range working at 50% and at 60% intensity
- present your results (in a different way to Part 2) so that an individual can check whether their heart rate after exercise fits within the required range (e.g. complex table, comparative/component bar chart or pie chart, multiple line graph/line graph or complex diagram)
- select three activities that could be carried out by your chosen group and consider the effect that each has on heart rate
- calculate the percentage change in heart rate following each of the selected activities
- select one activity for your target group to try at your promotional event. Justify your selection.

(8 marks)

Part 4:

You must:

- calculate the maximum number of people that will fit in a room for a 'Step' taster session in the region that you have chosen.

You must:

- do at least one calculation without a calculator
- show all your workings
- show how you check your calculations.

Make a brief report about your results:

- comment on your findings
- justify your methods including the information you used, the calculations you carried out and your methods of presentation
- comment on the effectiveness of your results in meeting the purpose of the task
- comment on how any possible sources of error may have affected your results.

(10 marks)

Resources/Support you should use:

Source 1

- Table showing exercise participation rates and BMI of a representative sample of the population

Source 2

- Table showing Pulse Rate Reached Following a Range of Exercises

Source 3

- Formula for exercise intensity level

Source 4

- Diagrams of venues in different regions

Source 1 – Table showing exercise participation rates and BMI of a representative sample of the population (data presented over 2 pages)

Initials of person	Region	Age	Gender	Total exercise per week (hours)	Number of sessions per week	Body Mass Index BMI
CH	south	30	f	2.0	2	26.3
DD	east	32	m	5.75	5	26.3
BM	south	42	m	2.0	4	27.8
BF	north	47	f	3.5	7	26.8
ED	east	38	f	2.0	5	28.4
FF	west	28	f	2.0	1	25.6
EH	east	50	f	1.5	2	25.1
AD	north	34	m	2.0	2	27.1
BH	south	20	m	4.0	6	25.4
AE	north	39	m	0.0	0	27.2
AN	north	27	f	4.5	3	23.7
AC	north	26	m	3.5	5	26.9
FK	west	46	f	2.5	5	26.5
DG	east	43	m	4.0	4	26.2
DC	east	27	m	6.5	3	27
EC	east	31	f	2.0	4	27.3
CN	south	51	f	4.0	5	26.8
CP	south	52	f	3.0	2	26.9
EE	east	41	f	2.0	1	24.1
BA	north	32	f	0.0	0	24.2
AH	north	48	m	1.75	2	27
BB	north	36	f	2.0	1	25
AK	north	52	m	0.0	0	27.2
EB	east	29	f	2.0	1	27.1
FH	west	37	f	1.5	1	24.4
EG	east	46	f	1.5	1	24.5
BG	north	53	f	3.25	4	26.5
DB	east	24	m	5.0	6	26.5
FB	west	52	m	0.0	0	25.8
FJ	west	44	f	1.5	1	24.5
BC	north	37	f	2.0	1	25.2
EF	east	44	f	1.5	1	24.3
BJ	south	23	m	3.0	2	24.8
CF	south	26	f	0.0	0	26.9
EA	east	25	f	4.75	5	26.9
AA	north	23	m	9.75	6	23.6
EJ	east	51	f	0.0	0	26.2
FM	west	52	f	3.0	2	25.8

AF	north	42	m	2.25	2	25.9
BL	south	35	m	4.25	4	24.3
DL	east	22	f	4.75	3	26.2
FL	west	49	f	2.5	2	24.8
DA	east	21	m	6.0	4	25.4
EK	west	20	m	7.25	4	25
FD	west	22	f	6.0	5	24.9
EL	west	24	m	5.0	6	25.1
CJ	south	32	f	3.5	7	26.5
DH	east	46	m	3.75	2	27.3
CK	south	37	f	3.0	2	26.8
BK	south	36	m	3.0	4	25
FA	west	49	m	0.0	0	26.9
EJ	west	36	m	2.0	1	25.2
AL	north	22	f	3.5	2	24
DF	east	40	m	4.5	3	26.1
FG	west	33	f	1.0	1	24.8
EK	west	42	m	1.5	1	25.5
CB	south	47	m	0.0	0	27.9
CE	south	23	f	4.75	4	26.9
EG	west	29	m	3.0	2	24.3
CD	south	53	m	1.0	1	27.8
FE	west	26	f	4.0	5	25.2
AJ	north	51	m	1.5	1	28.5
CL	south	43	f	3.5	2	27
BL	south	39	m	3.0	2	26.1
FN	west	54	f	2.5	2	25.4
BD	north	43	f	3.75	5	26.3
CC	south	51	m	1.0	1	27.6
FC	west	54	m	0.5	1	26.4
CG	south	27	f	2.0	2	26.2
AB	north	25	m	7.5	5	24.1
CM	south	49	f	4.0	5	27.2
DJ	east	53	m	4.5	6	26.2
AM	north	26	f	5.0	3	23.6
CA	south	45	m	0.0	0	28.2
BE	north	44	f	3.75	2	27
AG	north	45	m	2.0	1	26.5
DK	east	55	m	4.5	5	24.8
EH	west	31	m	2.75	2	24.3
EL	west	44	m	1.5	1	25.2
DE	east	34	m	4.75	4	26.6

Source 2 – Pulse Rate Reached Following a Range of Exercises

Exercise	Typical pulse rate after exercise (beats per minute)*
Pilates	89
Yoga	89
Beginners aerobics	110
Step	125
Bodyump	135
Beginners Boxercise	135
Bootcamp	152
Kettles	152

Typical starting pulse rate 60 beats per minute (bpm)

For a well-trained athlete it is 40-60bpm

* These figures will vary according to the individual, how often they exercise and how much effort they put into the exercise.

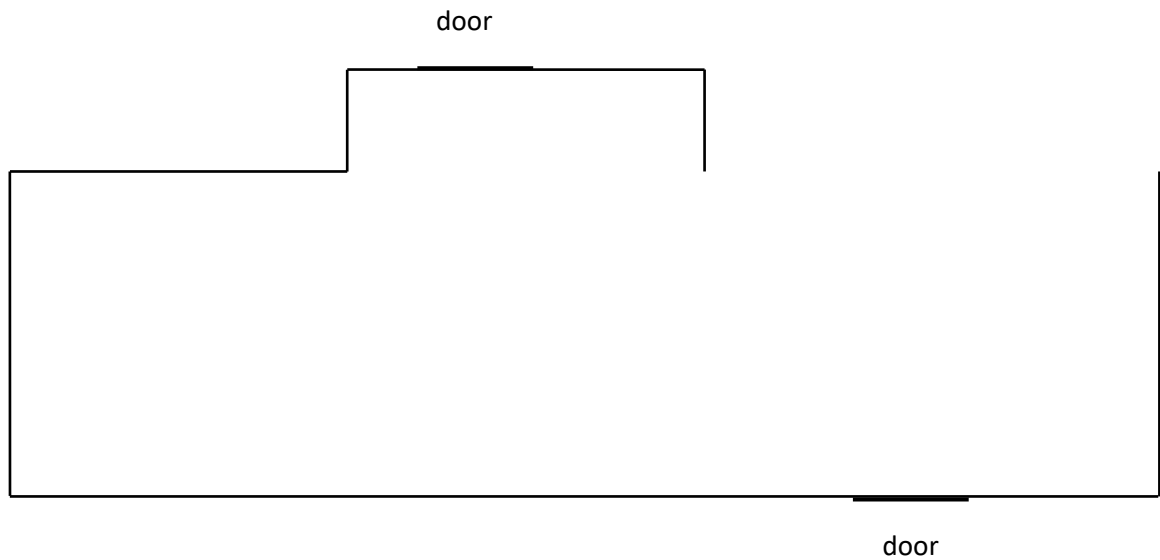
Source 3 – Formula for exercise intensity level

$$E = \frac{100h}{220 - a}$$

Where E is the exercise intensity level %
 h is the heart rate beats per minute
 a is the age in years

Source 4 – Diagrams of venues in different regions

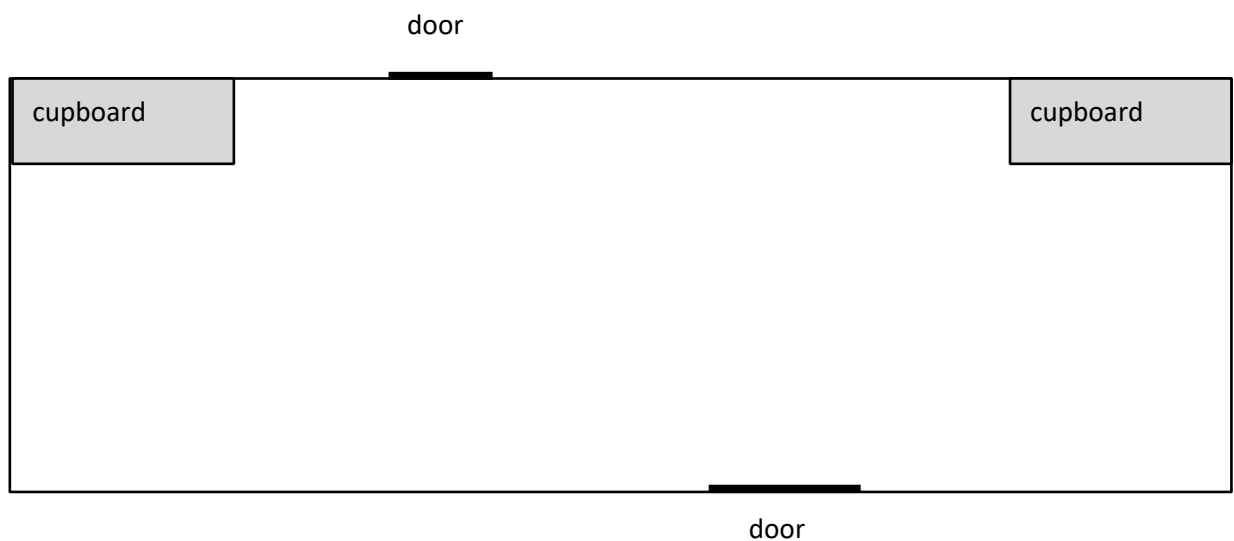
Northern Location



Scale 1:150

Allow 15 m² per person for 'Step' activity.

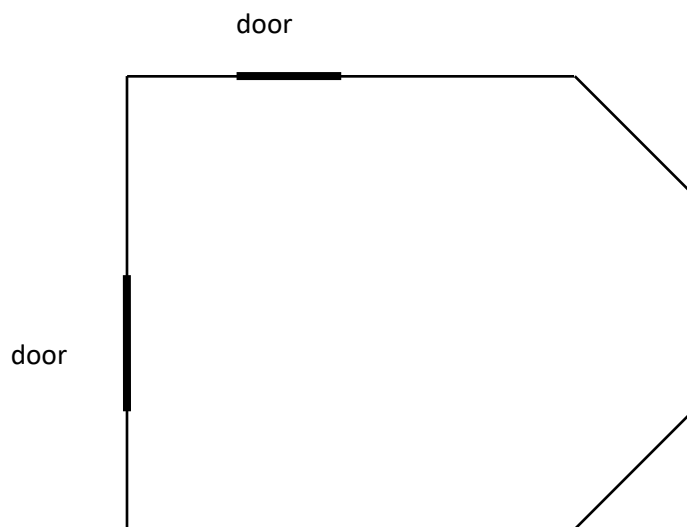
Eastern Location



Scale 1:250

Allow 15 m² per person for 'Step' activity.

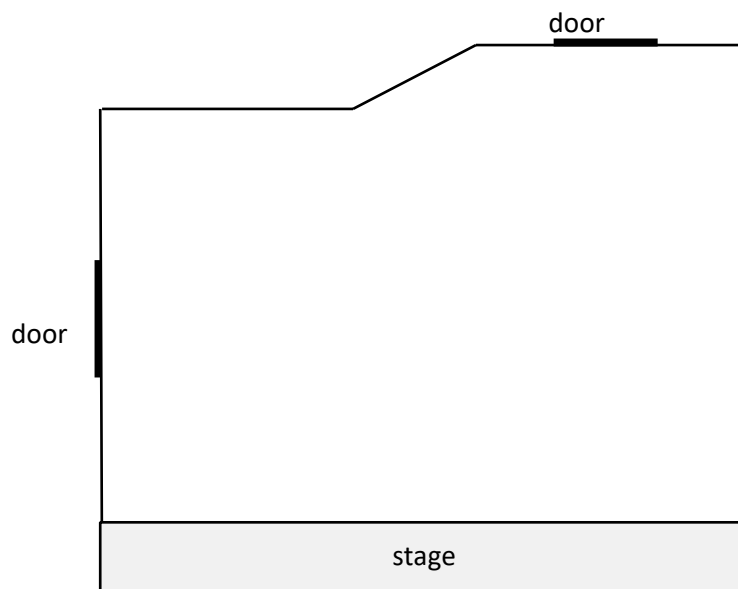
Southern Location



Scale 1:200

Allow 15 m² per person for 'Step' activity.

Western Location



Scale 1:250

Allow 15 m² per person for 'Step' activity.

Declarations

The candidate and assessor declarations **must** be completed.

Candidate name: _____

Candidate declaration:

I confirm that this is entirely my own work and it was completed in the times stated on the front cover.

Candidate signature _____ Date _____

For centre staff and [AB] use only

Assessor declaration:

I confirm that this candidate has met the standard required for the controlled task. The controlled task was conducted under the specified conditions and completed within the working period and working time requirements.

Assessor signature _____ Date _____

Internal quality assurer (IQA) declaration:

(if sampled)

I have internally quality assured this work and confirm that the standards have been met.

IQA signature _____ Date _____

External quality assurer (EQA) declaration:

(if sampled)

I have externally quality assured this work and confirm that the standards have been met.

EQA signature _____ Date _____