

Fitness Testing

Tests

12-Minute Cooper Run/Swim

Harvard Step Test

One-Minute Sit-Up Test

Sit and Reach Test

Hand-Grip Test (also known as Hand-Grip Dynamometer Test)

One-Minute Press-Up Test

30-Metre Sprint Test

Vertical Jump/Sargent Jump Test

Illinois Agility Test

On each page

Fitness component being tested

Protocol for each test

Normative Data for each test

Advantages and Disadvantages table

Validity and Reliability

Important

You will need to identify each test and the component of fitness being tested.

You need to describe how the test is carried out.

You will need to assess the validity and reliability of the tests.

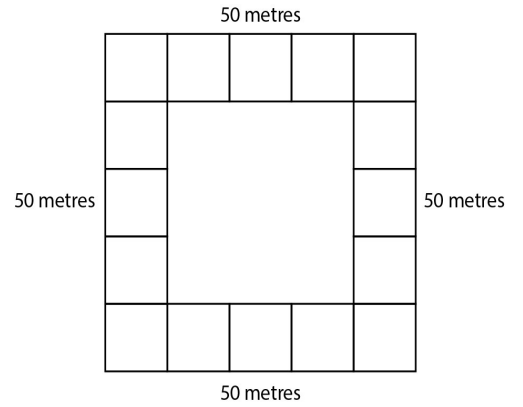
You will need to apply this effectively to your PEP and examination questions.

12-Minute Cooper Run/Swim

This test focuses on **cardiovascular fitness**

The test protocol (how to conduct the test)

1. Use a 200 m area, marked every 10 m.*
2. Run as far as possible in 12 minutes.
3. Record the distance covered to the nearest 10 metres.



Normative Data for 12-minute Cooper Run

Gender	Excellent	Above average	Average	Below average	Poor
Male	>2,800 m	2,500–2,800 m	2,300–2,499 m	2,200–2,299 m	<2,200 m
Female	>2,100 m	2,000–2,100 m	1,700–1,999 m	1,600–1,699 m	<1,600 m

*Count lengths for swim test and check normative data elsewhere.

<u>Advantages</u>	<u>Disadvantages</u>

<u>Validity and Reliability</u>

Harvard Step Test

This test focuses on **cardiovascular fitness**

The test protocol (how to conduct the test)

1. Step up on to a standard gym bench once every 2 seconds for 5 minutes (150 steps in total), using a metronome.
2. Have someone help you keep to the required pace, telling you to either speed up or slow down.
3. One minute after finishing the test, take your pulse (6 seconds \times 10) = PULSE 1.
4. Two minutes after finishing the test, take your pulse (6 seconds \times 10) = PULSE 2.
5. Three minutes after finishing the test, take your pulse (6 seconds \times 10) = PULSE 3.
6. Use the calculator below to determine your level of fitness.



Calculator

Time of exercise = 5 minutes = 300 seconds

Total number of pulse counts = (PULSE 1 + PULSE 2 + PULSE 3) \times 2

Score = $\frac{\text{time of exercise (seconds)} \times 100}{\text{total pulse counts} \times 2}$

Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	>90	80–90	65–79	55–64	<55
Female	>86	76–86	61–75	50–60	<50

<u>Advantages</u>	<u>Disadvantages</u>

<u>Validity and Reliability</u>

One-Minute Sit Up Test

This test focuses on **muscular endurance**

The test protocol (how to conduct the test)

1. Lie on a mat with your knees bent, feet flat on the floor and arms folded across your chest or behind your head.
2. Your partner can hold your feet to the ground.
3. Start each sit-up with your back on the floor.
4. Raise yourself to the 90-degree position and then return to the floor; shoulder blades or upper back should touch the floor.
5. Your partner counts how many sit-ups have been completed in 1 minute.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	>49	44–49	39–43	35–38	31–34
Female	>43	37–43	33–36	29–32	25–28

<u>Advantages</u>	<u>Disadvantages</u>

<u>Validity and Reliability</u>

Sit and Reach Test

This test focuses on **flexibility**

The test protocol (how to conduct the test)

1. Remove your shoes.
2. Place feet flat against the bench or sit and reach box and straighten your legs fully.
3. Keep legs straight throughout.
4. Reach forward as far as possible; place one hand on top of the other.
5. Hold for 3 seconds
6. Measure in cm how far you reached.
7. Repeat 3 times and record the best measurement.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	>14 cm	11–14 cm	7–10 cm	4–6 cm	<4 cm
Female	>15 cm	12–15 cm	7–11 cm	4–6 cm	<4 cm

<u>Advantages</u>	<u>Disadvantages</u>

Validity and Reliability

Hand-Grip Test (also known as Hand-Grip Dynamometer Test)

This test focuses on **strength**

The test protocol (how to conduct the test)

1. Hold the dynamometer at the side of your body in your strongest hand with the dial facing away from your body
2. Squeeze the grips together to measure your strength.
3. Hold the grip for 3 seconds.
4. Get your partner to read the score (kg) off the dynamometer.
5. Complete the test with your weaker hand.
6. Compare the data for both hands.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	>56 kg	51–56 kg	45–50 kg	39–44 kg	<39 kg
Female	>36 kg	31–36 kg	25–30 kg	19–24 kg	<19 kg

<u>Advantages</u>	<u>Disadvantages</u>

<u>Notes/Important Information</u>

One-Minute Press-Up Test

This test focuses on **muscular endurance**

The test protocol (how to conduct the test)

1. Lie on the ground with your hands by your shoulders and straighten your arms. This is the start position.
2. Bend your arms so your elbows are 90 degrees, making sure your body remains straight and does not touch the floor.
3. Straighten your arms again to the start position.
4. Complete as many press-ups as you can in 1 minute, with your partner counting



Normative Data

Gender	Excellent	Good	Above average	Average	Below average
Male	>56	47–56	35–46	19–34	11–18
Female	>35	27–35	21–26	11–20	6–10

<u>Advantages</u>	<u>Disadvantages</u>

Validity and Reliability

--

30-Metre Sprint Test

This test focuses on **speed**

The test protocol (how to conduct the test)

1. Mark out 30 m.
2. Place 2 cones at the start and 2 cones at the end.
3. From a standing start, sprint from the start line to the finish line.
4. Your partner should record the time in seconds.
5. Rest for 3 minutes and repeat 3 times.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	<4.0 s	4.0–4.2 s	4.3–4.4 s	4.5–4.6 s	>4.6 s
Female	<4.5 s	4.5–4.6 s	4.7–4.8 s	4.9–5.0 s	>5.0 s

<u>Advantages</u>	<u>Disadvantages</u>

Validity and Reliability

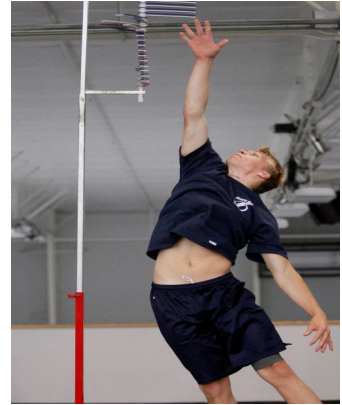
--

Vertical Jump/Sargent Jump Test

This test focuses on **power**

The test protocol (how to conduct the test)

1. Put chalk on your fingers and from a standing position raise your arm and touch as high up the wall as you can.
2. This is called your standing reach height.
3. Now bend your knees and jump as high as possible—touching the wall again at the highest point.
4. Measure the distance between the marks on the wall—this is your score.
5. Repeat three times and record the best score.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	>65 cm	56–65 cm	50–55 cm	49–40 cm	<40 cm
Female	>60 cm	51–60 cm	41–50 cm	35–40 cm	<35 cm

<u>Advantages</u>	<u>Disadvantages</u>

Validity and Reliability

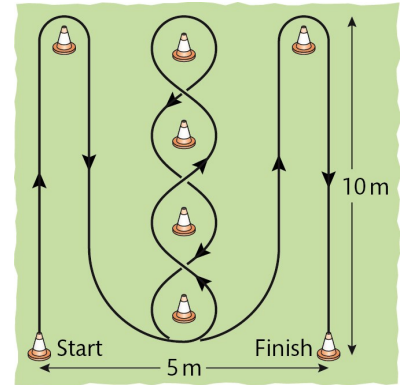
--

Illinois Agility Test

This test focuses on **agility**

The test protocol (how to conduct the test)

1. This test is 10 metres long and in total you will run 60 metres.
2. You start lying down on your front at the start cone.
3. You then sprint and weave in and out of the cones.
4. Use the diagram below to make sure you are following the correct route.
5. Your partner stops the time when you cross the finish line.
6. The time taken, measured in seconds, is your agility rating.



Normative Data

Gender	Excellent	Above average	Average	Below average	Poor
Male	<15.2 s	15.2–16.1 s	16.2–17.1 s	17.2–18.3 s	>18.3 s
Female	<17 s	17–17.9 s	18–21.7 s	21.8–23 s	>23 s

<u>Advantages</u>	<u>Disadvantages</u>

<u>Validity and Reliability</u>