Unit 1 Revision Guide

Name:

Components of physical fitness

Task 1: fill in the blanks to complete the names of the components of physical fitness

Task 2: match the component of fitness to the correct definition

A_____ E_____	The ability to move all joints fluidly through their complete range of movement
M_____ E_____	The relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body
F_____	The ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity
S_____	The maximum force that a muscle or muscle group can produce. This is measured in kilograms (kg) or Newtons (N).
M_____ S_____	The ability of the muscular system to work efficiently, in which a muscle can repeatedly contract over a period of time against a light to moderate fixed-resistance load
B_____ C_____	Distance divided by the time taken. It is measured in metres per second (m/s).

For the exam you will need to know the definitions off by heart so start learning them now!

Components of skill-related fitness

Task 1: read the definition and decide what component of fitness it is defining. Write the name of the component of fitness in the box.

	The ability to move quickly and precisely or change direction without losing balance or time
	The ability to maintain your centre of mass over a base of support. There are two types: static and dynamic.
	The ability of parts of the body to work together to move smoothly and accurately
	The work done in a unit of time. It is calculated by doing force (kg) x distance (m) / time (min or s)
	The time taken to for a sports performer to respond to a stimulus.

Task 2: There are 5 components of fitness and 5 pictures. You can only use each component once. Pick the most important one for each picture

Exam Questions – answer all these questions in full sentences

1. Which component of fitness can have kgm/s as its unit of measurement? (1 mark)

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2. Define aerobic endurance and name one sport that would require good aerobic endurance. (2 marks)

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3. How do you calculate power? Make sure you include the units. (1 mark).

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4. Define reaction time and name one sport that requires a good reaction time. (2 marks)

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5. Define balance and name the 2 different types of balance. (2 marks).

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Sporting Examples

Task: for each of the sports you need to give a well explained justification. This should be in full sentences. Make sure it links to the definition of the component.

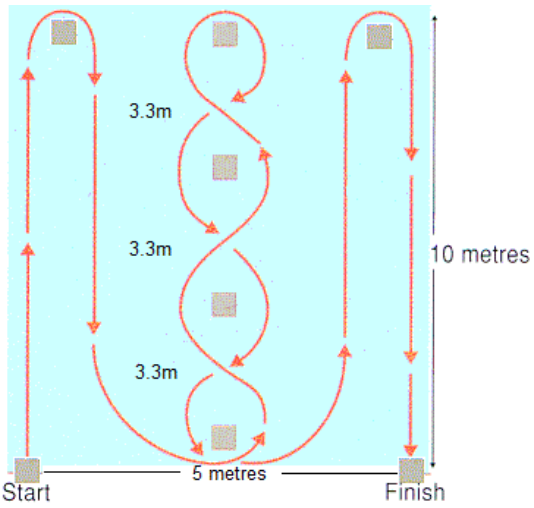
Component of fitness	**Sport**	**Justification**
Aerobic endurance	Marathon	
Muscular endurance	Rowing	
Flexibility	Football – goalkeeping	
Speed	100m sprint	
Muscular strength	Gymnastics 	
Body composition	High jump	

Fitness Tests

Task: name the fitness test that each picture is representing and the component of fitness it is testing.

Fitness test:

Component of fitness:



Fitness test:

Component of fitness:

Fitness test:

Component of fitness:

$$\frac{\text{Weight (kg)}}{\text{Height (m)}^2}$$

Fitness test:

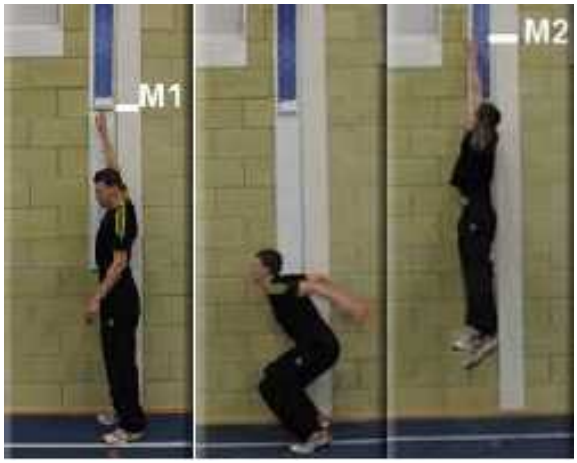
Component of fitness:

Fitness test: Component of fitness:

Fitness test: Component of fitness:

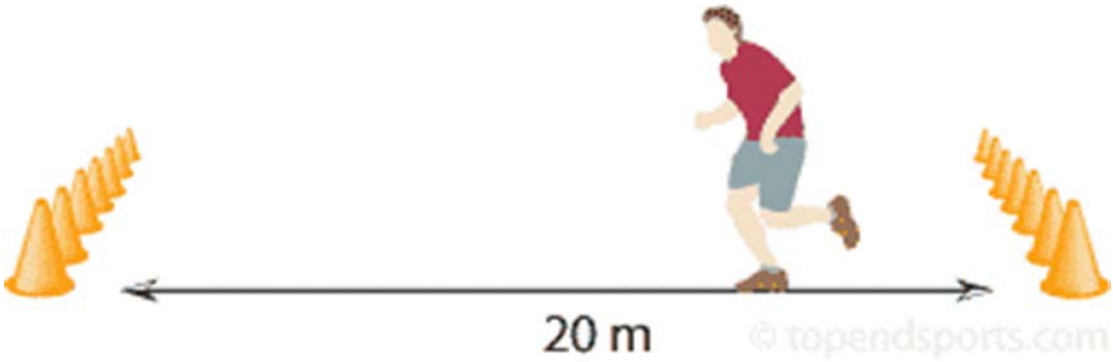
Fitness test: Component of fitness:

Fitness test: Component of fitness:



Fitness test: Component of fitness:

Fitness test: Component of fitness:



Fitness test: Component of fitness:

Question: Which fitness test is missing from the pictures above and what component of fitness is that test for?

_____

_____

Exam Questions – answer all these questions in full sentences

1. Give three reasons why speed is an important component of physical fitness for basketball players. (3 marks)

_____

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2. Patrick and David are 20 years old. They are both keen amateur basketball players and would like to begin training with a new coach.

   The new coach has identified two fitness tests which could be used to determine Patrick's and David's baseline levels of fitness. Explain why the coach would have chosen each of the tests:

- Vertical jump test (2 marks)
- Illinois agility test (2 marks)

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Fitness Testing

Read through the following information and underline/highlight the key points.

Why are fitness tests important?
Fitness tests are important because they:

- Provide a coach with baseline data results, which they can compare to normative data to draw conclusions about an individual's fitness levels
- Give a starting point on which to base training programme design. Fitness tests can then be used during training to show progress being made
- Can give clear goals and targets to aim for

Pre-test procedures
Gaining informed consent
Before administrating or participating in fitness tests the participant should complete an informed consent form. This shows that the participant has been provided with all the necessary information to undertake each fitness test. They cover the following points, which confirm that the participant:

- Is able to follow the test method
- Knows exactly what is required of them during testing
- Has fully consented to participation in the fitness test
- Knows that they are able to ask any questions regarding the tests
- Understands that they can withdraw consent at any time

Calibration of equipment
This is the process of checking and if necessary adjusting the accuracy of fitness testing equipment before it is used, by comparing it to a recognised standard. The equipment should be checked carefully. If it isn't checked fully then this could lead to inaccurate results.

Accurate measurement and recording of test results

- Practice the test before to make sure it is being carried out correctly
- All fitness tests should be repeated to make sure the results are reliable
- Use the correct units of measurement
- Use published normative data tables to interpret fitness test results

Reliability, validity and practicality of fitness test methods

- ***Reliability*** is repeatability – the results obtained should be consistent
- ***Validity*** – is the accuracy of the fitness test results. The results should be a true reflection of what you were trying to measure
- ***Practicality*** – is about how easy it is ti carry out the test in terms of the costs involved, time available and equipment requirements

Fitness Test	Advantages	Disadvantages
Sit and reach test		
Grip dynamometer test		
Multi-stage fitness test		
Forestry step test		
Illinois agility run		
Vertical jump test		

Fitness Test	Advantages	Disadvantages
One minute press up/sit up test		
Body Mass Index (BMI)		
Bioelectrical Impedance Analysis (BIA)		
Skinfold testing		
35m sprint test		

Interpreting results – Multistage fitness test

Table 1.14 Aerobic endurance results

Rating	Males aged 15-19 years (ml/kg/min)	Females aged 15-19 years (ml/kg/min)
Excellent	>60	>54
Good	48-59	43-53
Average	39-47	35-42
Below average	30-38	28-34
Poor	<30	<28

Table 1.15 How do your aerobic endurance test results compare to those of elite performers

Rating	Males aged 18-22 years (ml/kg/min)	Females aged 18-22 years (ml/kg/min)
World class	>80	>70
Elite	70	63
Trained	57	53
Active	50	43
Untrained	45	39

Table 1.16 Predicted maximum oxygen uptake values (ml/kg/min)

Level	Shuttle	VO2 max	Level	Shuttle	VO2 max	Level	Shuttle	VO2 max	Level	Shuttle	VO2 max
4	2	26.8	10	2	47.4	15	2	64.6	19	6	79.2
4	4	27.6	10	4	48.0	15	4	65.1	19	8	79.7
4	6	28.3	10	6	48.7	15	6	65.6	19	10	80.2
4	9	29.5	10	8	49.3	15	8	66.2	19	12	80.6
5	2	30.2	10	11	50.2	15	10	66.7	19	15	81.3
5	4	31.0	11	2	50.8	15	13	67.5	20	2	81.8
5	6	31.8	11	4	51.4	16	2	68.0	20	4	82.2
5	9	32.9	11	6	51.9	16	4	68.5	20	6	82.6
6	2	33.6	11	8	52.5	16	6	69.0	20	8	83.0
6	4	34.3	11	10	53.1	16	8	69.5	20	10	83.5
6	6	35.0	11	12	53.7	16	10	69.9	20	12	83.9
6	8	35.7	12	2	54.3	16	12	70.5	20	14	84.3
6	10	36.4	12	4	54.8	16	14	70.9	20	16	84.8
7	2	37.1	12	6	55.4	17	2	71.4	21	2	85.2
7	4	37.8	12	8	56.0	17	4	71.9	21	4	85.6
7	6	38.5	12	10	56.5	17	6	72.4	21	6	86.1
7	8	39.2	12	12	57.1	17	8	72.9	21	8	86.5
7	10	39.9	13	2	57.6	17	10	73.4	21	10	86.9
8	2	40.5	13	4	58.2	17	12	73.9	21	12	87.4
8	4	41.1	13	6	58.7	17	14	74.4	21	14	87.8
8	6	41.8	13	8	59.3	18	2	74.8	21	16	88.2
8	8	42.4	13	10	59.8	18	4	75.3			
8	11	43.3	13	13	60.6	18	6	75.8			
9	2	43.9	14	2	61.1	18	8	76.2			
9	4	44.5	14	4	61.7	18	10	76.7			
9	6	45.2	14	6	62.2	18	12	77.2			
9	8	45.8	14	8	62.7	18	15	77.9			
9	11	46.8	14	10	63.2	19	2	78.3			
			14	13	64.0	19	4	78.8			

Interpreting results – Forestry step test

Table 1.17b Forestry non-adjusted aerobic fitness values (ml/kg/min) for females

Pulse count	Maximal oxygen consumption (VO2 max)											
45										29	29	29
44								30	30	30	30	30
43							31	31	31	31	31	31
42			32	32	32	32	32	32	32	32	32	32
41			33	33	33	33	33	33	33	33	33	33
40			34	34	34	34	34	34	34	34	34	34
39			35	35	35	35	35	35	35	35	35	35
38			36	36	36	36	36	36	36	36	36	36
37			37	37	37	37	37	37	37	37	37	37
36		37	38	38	38	38	38	38	38	38	38	38
35	38	38	39	39	39	39	39	39	39	39	39	39
34	39	39	40	40	40	40	40	40	40	40	40	40
33	40	40	41	41	41	41	41	41	41	41	41	41
32	41	41	42	42	42	42	42	42	42	42	42	42
31	42	42	43	43	43	43	43	43	43	43	43	43
30	43	43	44	44	44	44	44	44	44	44	44	44
29	44	44	45	45	45	45	45	45	45	45	45	45
28	45	45	46	46	46	47	47	47	47	47	47	47
27	46	46	47	48	48	49	49	49	49	49		
26	47	48	49	50	50	51	51	51	51			
25	49	50	51	52	52	53	53					
24	51	52	53	54	54	55						
23	53	54	55	56	56	57						
Weight (kg)	**36.4**	**40.9**	**45.4**	**50.0**	**54.5**	**59.1**	**63.6**	**68.2**	**72.7**	**77.3**	**81.8**	**86.4**

Table 1.17c Age-adjusted fitness levels

Fitness Score		30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
Nearest age	15	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	53	
	20	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	
(cont.)																							
Fitness Score		**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**
Nearest age	15	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	74	75	76
	20	52	53	54	55	56	57	58	59	60	61	62	63	54	65	66	67	68	69	70	71	72	73

Table 1.17d Aerobic fitness levels

	Fitness category						
	Superior	**Excellent**	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**
Age and gender	**Maximum oxygen consumption (ml/kg/min)**						
15 year old male	57+	56-52	51-7	46-42	41-37	36-32	<32
15 year old female	54+	53-49	48-44	43-39	38-34	33-29	<29
20 year old male	56+	55-51	50-46	45-41	40-36	35-31	<31
20 year old female	53+	52-48	47-43	42-38	37-33	32-28	<28

Exam Questions – answer both of these questions in full sentences

Rob is 18 years old. He reached Level 12 Shuttle 12 in the multistage fitness test. Use Table 1.16 on page 14 to predict Rob's VO_2 max. Then use tables 1.14 and 1.15 on page 14 to interpret Rob's aerobic endurance test result. (2 marks)

How to answer this question (include all these points in your answer):

- Find level 12 shuttle 12 on table 1.16 (read the table carefully)
- Next to level 12 shuttle 12 it will give you a number for VO_2 max (this is his predicted VO_2 max)
- Use table 1.14 to interpret his result
- Use table 1.15 to compare his result to an elite performer

_____
_____
_____
_____
_____
_____

Ana has just completed the Forestry step test. Her 15 second pulse count is 33. Ana is 15 years old and weighs 59kg. Use tables 1.17b-d on page 15 to work out and interpret Ana's VO_2 max (ml/kg/min). (2 marks)

How to answer this question (include all these points in your answer):

- Use table 1.17b. In the left hand column find 33 pulse count and across the bottom find the nearest number to 59kg (read the table carefully)
- Find the box where those two numbers meet (this is her predicted VO_2 max)
- Use table 1.17c to find her age adjusted score (find her fitness score across the top row and then look at the box directly below – this is her age adjusted score)
- Use table 1.17d to interpret her fitness level (make sure you use the correct gender and age)

_____
_____
_____
_____
_____
_____

Interpreting results – Skinfold testing

For ***women*** the three skinfold testing sites are: triceps, thigh, suprailium

For ***men*** the three skinfold testing sites are: chest, abdomen and thigh

To interpret results:

1. Add up the sum of the three skinfolds
2. Plot your age on the left hand scale and plot the sum of your three skinfolds on the right hand scale
3. Use a ruler and sharp pencil to join the two points
4. Read your % body fat result to the nearest 0.5% according to your gender
5. Use table 1.25 to interpret the % body fat result obtained

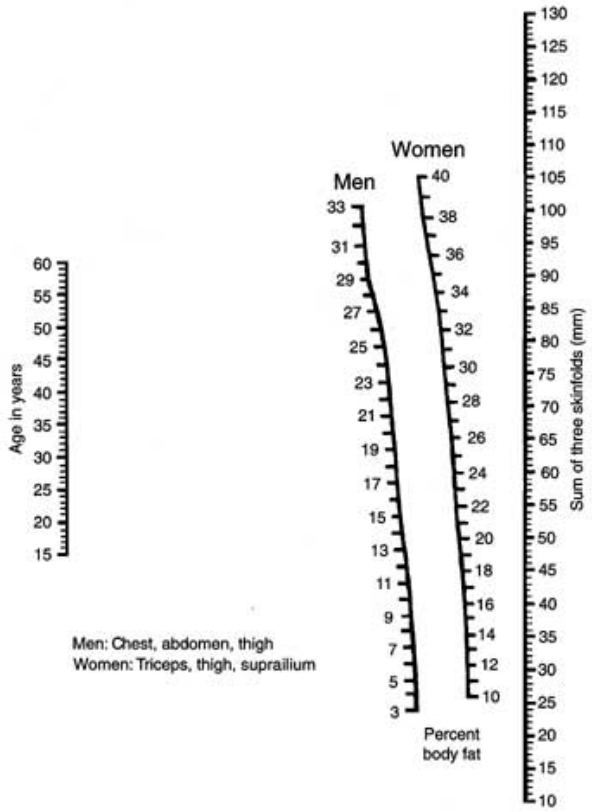


Table 1.25

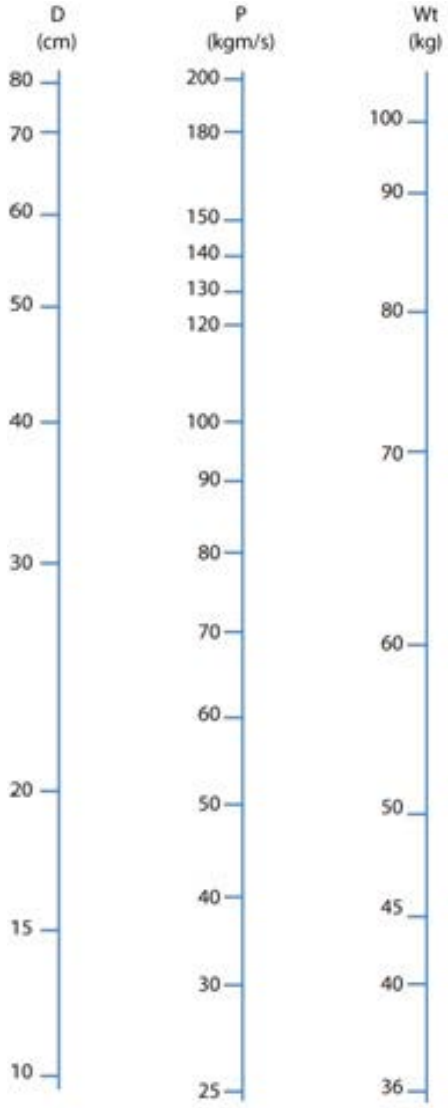
Rating	Males (16-29)	Females (16-29)
Very low fat	<7	<13
Slim	7-12	13-20
Ideal	13-17	21-25
Overweight	18-28	26-32
Obese	>28	>32

Fred is 40 years old and the sum of his three skinfolds is 35mm. Work out the % of body fat and interpret this result. (2 marks)

_____

_____

Interpreting results – Vertical jump test



To interpret results:

1. Plot the difference (D) between your standing reach height and your best jump height (cm) on the D line (left hand side)
2. Plot your weight in kilograms on the line Wt (right hand side)
3. Use a sharp pencil and a ruler to join up the points. Where it crosses the P line (middle line) that is a prediction of the anaerobic power (kgm/s)
4. Use table 1.20 to interpret the result

Table 1.20

Rating	Males (kgm/s)	Females (kgm/s)
Above average	>105	>90
Average	95	80
Below average	<85	<70

George has a difference of 45cm between his standing reach height and his best jump. He weighs 60kg. Use the nomogram and table to work out and interpret his result. (2 marks)

_____

_____

_____

Exercise Intensity

- Heart rate is measured in _____ _____ _____ (bpm)

- To calculate your maximum heart rate you use the following sum: _____ - _____ = MHR

- My maximum heart rate (MHR) = _____ bpm

- To be working in the training zone for aerobic endurance you need to work at _____% - _____ % of your maximum heart rate

- Lower threshold of the training zone = _____ %

- My lower threshold of the training zone = _____ bpm

- Upper threshold of the training zone = _____ %

- My upper threshold of the training zone = _____ bpm

Questions

Malcom is 30 years old and Vivienne is 48 years old.

1. Calculate their maximum heart rates. You must show your working out. (4 marks).

2. Calculate their lower and upper heart rate training zones for aerobic endurance. Make sure you show working out (4 marks).

	Malcom	**Vivienne**
Max HR		
Lower		
Upper		

RPE

Another way of determining exercise intensity is to use the Rating of Perceived Exertion (RPE) scale, developed by Professor Gunnar Borg in 1970. The scale can be used to rate an individual's level of physical exertion during physical activity or exercise.

The scale starts at 6 and goes up to 20, where 6 means 'no exertion at all' (at rest) and 20 is 'maximal exertion' (for example, the feeling you have as you make an all out effort for the finish line of a sprint race).

Plenty of practice is needed to learn how to use the scale properly. When giving a rating, the individual needs to take into account all sensations of physical stress, effort and fatigue that they are feeling. This will include strain and fatigue in exercising muscles, and feelings of breathlessness.

Rating of Perceived Exertion	**Intensity**
6	No exertion at all
7	Extremely light
8	
9	Very light
10	
11	
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

Instead of using a HR monitor, you can use the RPE scale to predict the exercise HR of an individual using the relationship:

RPE x _____ = HR (bpm)

Task: Frida is 33 years old and exercises in the gym. She records her RPE during the following activities. Complete the table.

Exercise	**RPE**	**Heart rate (bpm)**
Exercise bike	13	
Free weights	15	
Treadmill	16	

Principles of Training

The FITT principle is:

- **F**_____ - the number of training sessions you complete over a period of time. Aim for three to five sessions per week
- **I**_____ - how hard you train. It can be prescribed using HR or RPE
- **T**_____ - how long you train for. Aim for 15 to 60 minutes of activity, depending on the intensity.
- **T**_____ - how you train. The appropriate method of training should be selected according to your needs and goals.

Additional principles of training:

P_____ **O**_____ (increasing training gradually)

S_____ (make it suit your sport or needs)

I_____ **N**_____ (designed to suit you)

A_____ (how your body changes)

R_____ (what happens if you stop training)

V_____ (helps to prevent boredom)

R_____ and **R**_____ (essential to allow the body to repair)

Task

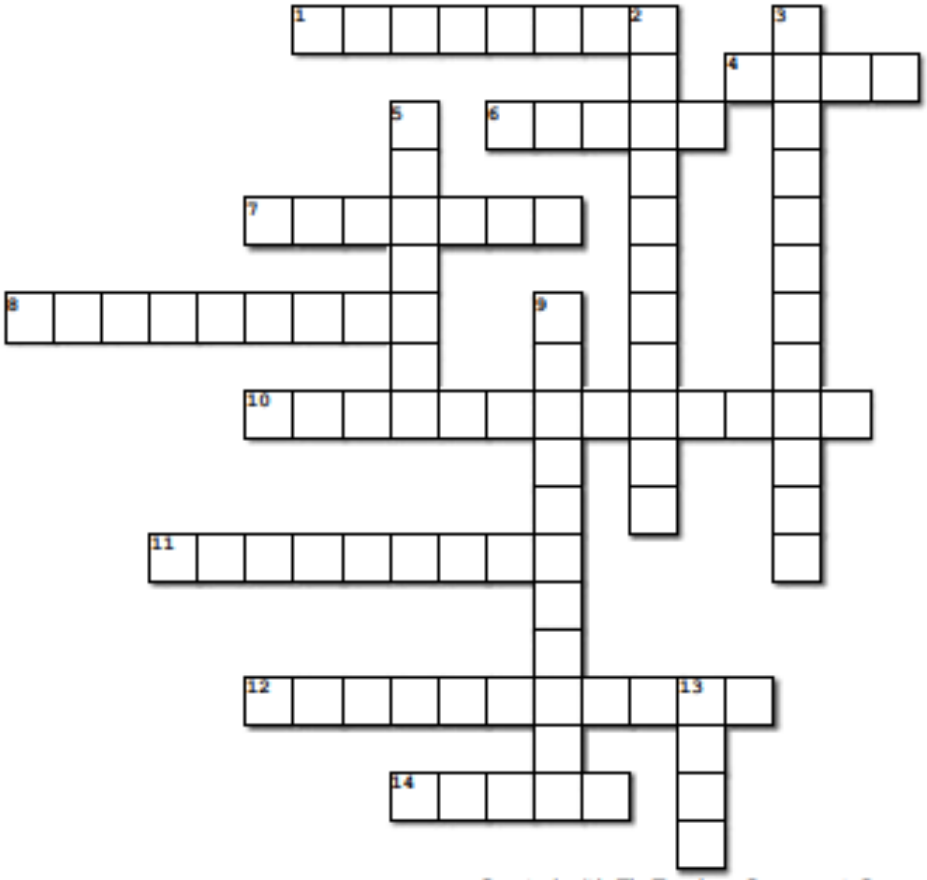
Can you create a mnemonic, acrostic or something similar to help you remember these principles of training?

Example: My Very Easy Method Just Shows yoU Nine Planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto – the mnemonic helps you to remember the order of the planets)

Task: Complete the crossword below. Challenge yourself to try and do this without checking any of the information.

Fitness Training

Complete the crossword below



Across

1. Name of the agility test
4. Scale used to determine exercise intensity
6. Distance divided by time
7. The ability to move quickly and precisely or change direction without losing balance or time
8. This is what helps to prevent boredom in a training programme
10. This is what happens when you stop training
11. The number of training sessions completed in a week
12. The ability to move all joints fluidly through their complete range of movement
14. The work done in a unit of time

Down

2. Training should be related to sport or personal goals
3. To be able to use different parts of the body together
5. There are two types: static and dynamic
9. The distance of the test for speed
13. How long you train for

Flexibility Training

Definition of flexibility:

_____
_____

There are three methods of training that can be used to develop our flexibility:

1.

2.

3.

Task: Read through the description of each method. Fill in the blanks. Then decide what method of training it is talking about and put the title at the top of each column. There is a word bank to help you but see how much you can do by yourself.

Method 1:	**Method 2:**	**Method 3:**
Involves making _____ and _____ movements. It can incorporate _____ - specific movements. It is important to perform these stretches _____ as incorrect technique could lead to _____ .	Involves _____ stretching a muscle to the limit of its _____ ____ _____ and then holding the stretch for ____ to ____ seconds. There are two types: • _____ stretching – this is when they are performed by a sports performer on their own • _____ stretching – this requires the help of a person or object	This is an advanced form of passive stretching. The _____ technique allows an even greater _____ ___ _____ to occur . It must be performed carefully with a _____ . 1. _____ the muscle 2. _____ the muscle for 6-10 seconds 3. _____ the muscle and then perform a static stretch.

Word bank

Sport	Range of movement	Stretch
Carefully	20	PNF
Fast	Active	Relax
Injury	Slowly	Range of movement
Jerky	10	Contract
	Passive	Partner

Strength, muscular endurance and power training

Definition of strength:

_____

_____

Definition of muscular endurance:

_____

_____

Definition of power:

_____

_____

There are three methods of training that can be used to develop strength, muscular endurance and power

1. Plyometric training
2. Circuit training
3. Free weights

Method 1: Plyometric training

Name 3 sports that would benefit from using plyometric training

-
-
-

Describe plyometric training. You should include the following words: lengthened, contracted, quickly, force

_____

_____

_____

_____

Complete the table with as much information as possible.

Equipment	**Activities**

Method 2: Circuit training

Describe circuit training

_____
_____
_____
_____
_____

List three things that someone must consider when planning a circuit training session.

-
-
-

How could you apply the principles of progressive overload to circuit training?

_____
_____
_____
_____
_____

Design your own 10 station circuit. Remember to take into consideration all the points you have talked about above.

Method 3: Free weights

Barbells or dumb-bells are types of free weights and can be used to perform a range of constant-resistance exercises.

There is a greater chance of injury when using free weights as opposed to fixed-resistance machines and care must be taken to ensure correct, safe technique and use of equipment. When using heavy weights, the use of a spotter is recommended.

1. Name two types of free weights.

-
-

2. What should you always have when using heavy weights?

_____
_____

	% 1RM	Reps	Sets
Muscular strength			
Muscular endurance			

Name 5 free weight activities that you could carry out:

-
-
-
-
-

How could you apply the FIT principles to free weight training?

_____
_____
_____
_____

Exam Questions – answer all these questions in full sentences

Rudi has joined his local gym with the aim of improving his strength and muscular endurance.

1. Which fitness training method should Rudi follow to help him achieve his aim? (1 mark)

_____

2. Explain why Rudi should increase progressive overload and give an example of how he could do this in circuit training. (2 marks)

_____
_____
_____
_____

3. Rudi wants to train for maximum strength. What % 1RM and reps should he be working at? (2 marks)

_____
_____
_____

Aerobic endurance training

Definition of aerobic endurance:

_____

_____

_____

There are three methods of training that can be used to develop aerobic endurance.

Task: Describe each method in good detail. The key words must be included in your description. After reading the key words you will be able to work out what method it is talking about so put the heading at the top of each box.

Method 1: Key words: • 'speed play', continuous, varies, speed, terrain
Method 2: Key words: • Steady state, moderate intensity, 30 minutes, intensity
Method 3: Key words: • Alternating, work, rest (also talk about how to apply FIT)

Speed training

Definition of speed:

_____
_____
_____

There are three methods of training for developing speed:

-
-
-

Task 1: read the sentences and decide what method the sentence is describing

Method	Clue
	Periods of work followed by periods of rest
	Can use drills such as hill sprints
	This is when the pace is gradually increased
	A series of sprints separated by walking or jogging
	During this the work intervals are short and of high intensity
	The sprints are separated by a less intense period

Task 2: draw the 3 different methods of training for speed

Application task

Choose an elite athlete of your chose. This could be your favourite sports person or perhaps someone who is a personal role model for you. What different fitness training methods do you think are important for your selected performer? Prepare a table listing each method and give your reasons.

You must select and justify 3 methods of training. They should be in order of importance.

Method 1:
Method 2:
Method 3:

F N S E M V O U S L B K U L O X P K Y Y F R Q E Y H V J H P
N L L U T K S A U E Z T I S F C I R T E M O Y L P A A Z L U
E P E E O P W M W E W H W E V D P I L Y C Q M K G A R D A G
O V Y X I U V N T C I T A T S I L D A P Q Z I H W O I C V V
H P M O I N N A S V S V U V B I O H K F Y C J Q D H A Q R N
M L T M Z B R I F I Q A R C B Y P T X U I Y H V C G T W E A
V K N Z M T I E T H O G L I X S F R A I M Y N U K S I Y T S
B N I J R Y U L Y N G K S E P E F D J S H W M I P Q O Q N W
J M P A M H T P I W O R G F M S A X J V C S J T P M N E I A
A U E T X P R I O T E C A O X P S R W L Z L E C O M V A J M
X H U J S R H M M V Y R W B T C V H J X J M P E C D P S C L
Z V L U A Q L V E E T D B A D I X K W E D Y O Y N E B Z D O
N C F Z J G A R D L G S T D Y R V J F C Q C N E U W C G O Y
U J V I E X L D E C J I Q F H C O U V N J V P P V U F P L Z
S C S B O R G K E B O A B Y J U Z W R A A X W R B P J T R V
X P P V O M Y Q P N M Q U R B I A P C R P J E H C L P B W C
X O E G M L L S S G R X X U X T P I W U C M L Z A D R F A J
L L C S K C I L A E R D F L Q X B F U D X J F B Q Z F N X F
R G I U S W O N W G L T B N K O T T T N B A K S V Z B C A T
W K F H R X D O T D Y K F C R S F M M E D Q R W L A M V J M
F J I W K E P Q Z E A S Q E J Q Q S V H S P Z B L L P E Y D
E O C O Y V L P C B N O A C W S S J Z C S D N L A B M G C Y
E J I I M Z B Q D T O S L U W O C I H Z G Q I H L L R F I H
O M T Z I V V X C E D D I R B N L T P A Q S K V Z A A Q A W
T C Y J H A G I L I T Y Y T E M R L C U T X M Q I Z C N F M
Y C N C V I F R E Q U E N C Y V D M O I H T G N E R T S C B
P W F I P J S F Y J R Q A I R K O R C H M Q I W L U F K L E
E Z A S M H K H D M G N E A C C E L E R A T I O N J W B V Y
Y Z W T E O M X W D U Y A G I D H Y V A S P J D G Q T B T S
X P G E Y L G R Z V Q A T Q M H X M G I A L I I S T R R S T

Acceleration
Adaptation
Aerobic
Agility
Balance
Ballistic
Borg
Circuit
Continuous
Endurance
Fartlek
Flexibility
Frequency
Heart rate
Hollow
Intensity
Interval
Overload
Plyometric
Power
Reversibility
Specificity
Speed
Static
Strength
Time

Method of training	**Advantages**	**Disadvantages**
PNF		
Circuit training		
Free weights		
Plyometric training		
Continuous training		

Method of training	**Advantages**	**Disadvantages**
Fartlek training		
Interval training (aerobic)		
Hollow sprints		
Acceleration sprints		
Interval training (speed)		

Exam Questions – answer all these questions in full sentences

1. Body fat can be predicted using the skinfold test. This method uses three skinfold sites for females.
   Tick the three correct skinfold sites for females from the list below. (3 marks)

- Suprailiac
- Chest
- Thigh
- Triceps
- Subcapular

2. Fitness testing can play an important part in an athletes training cycle.
   a) Name the piece of fitness testing equipment shown in the photograph (1 mark)

Answer: _____

b) State the component of fitness this piece of equipment is used to test. (1 mark)

Answer: _____

c) State the units of measurement for this test. (1 mark)

Answer: _____

3. Which component of fitness is most beneficial for a marathon runner? (1 mark)

- Speed
- Agility
- Aerobic endurance
- Flexibility

Answer: _____

4. a) Define muscular endurance (1 mark)

b) Name one test for muscular endurance (1 mark)

c) Explain the method for the named test (3 marks)

5. Using an example form a physical activity, explain what is meant by the term ‘co-ordination’. (2 marks)

6. What is meant by the term ‘reaction time’. (1 mark)

7. What is meant by the term ‘balance’? Give an example from a physical activity where a performer uses balance. (2 marks)

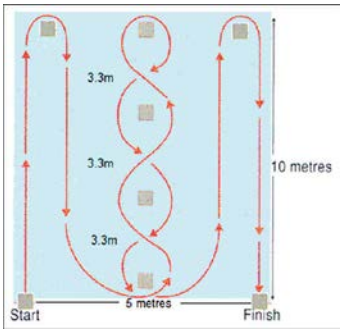
8. a) Define aerobic endurance (1 mark)

b) Give an example from a sporting activity where a performer requires aerobic endurance. (2 marks)

c) Name one test for aerobic endurance. (1 mark)

d) Explain the method for the named test. (3 marks)

9.



a) Name the test shown in the picture. (1 mark)

b) What component of fitness is this test for? (1 mark)

c) Explain the method for this test. (3 marks)

d) Using a named physical activity, explain why agility is important. (2 marks)