

# Level 2 Fitness Instructor – Principles of Exercise, Fitness and Health

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Full Name (Capitals)	
Course Start Date	
Course Location	
Tutor Name	

## Statement of Achievement

Assessor, by signing this statement of unit achievement you are confirming that all learning outcomes, criteria and range statements have been achieved under specified conditions and that the evidence gathered is authentic.

This statement of unit achievement table must be completed prior to claiming certification.

Section	Pass/Refer	Assessor Full Name	Assessor Signature
Understanding the effects of exercise on the body and the components of fitness			
Understand how to apply the principles and variables of fitness to an exercise programme			
Understand the exercise contraindications and key safety guidelines for special populations			
Understand how to safely monitor exercise intensity			
Understand the health benefits of physical activity			
Understand the importance of healthy eating			

Learner Name		IQA Name	
Learner Signature		IQA Signature	
Date		Date	

### **Principles of Exercise, Fitness and Health**

To pass this unit all questions must be answered correctly. If you answer a question incorrectly you will be asked to reattempt and resubmit that question.

#### **Learner Guidance:**

Pay close attention to the wording of each question:

- Identify: Label a diagram, can be a one-word answer
- Describe: Provide a short one to two-line description
- Explain: Requires more analysis to demonstrate your understanding of the topic, short paragraph.

### **Understanding the effects of exercise on the body**

Q1

Describe two adaptations that occur in the cardiovascular system from regular endurance/aerobic training.

Q2

Describe two adaptations that occur in the respiratory system from regular endurance/aerobic training.

Q3

Identify the short term effects of exercise on blood pressure for both Systolic and Diastolic pressure.

Learner guidance: short term = during exercise

Q4

Identify the long term effects of exercise on blood pressure for both Systolic and Diastolic pressure.

Learner guidance: long term = after training for several months

Q5

Describe the condition known as “blood pooling” following exercise.

Q6

Describe how regular load bearing exercise can be beneficial for the skeletal system?

Q7

Identify what DOMS stands for?

D	
O	
M	
S	

Q8

Describe what DOMS is.

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Q9

Identify one exercise or technique that is particularly associated with causing DOMS.

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Q10

Describe the short and long term effects of different types of exercise on muscle by completing the table below.

Types of exercise	During exercise	Long term
Weight training		
Cardiovascular training		

Q11

Your client has a Lordotic spine caused by weak transverse abdominis and tight erector spinae. What flexibility exercises and core stability training would you recommend to improve their posture?

Flexibility exercises:

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Core stability training:

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**Pass/Refer**

**Understand The Components Of Fitness**

Q1

Define the six components of skill related fitness.

Component	Definition

Q2

Define the five components of physical fitness.

Component	Definition

Q3

There are many factors that influence an individual's health, fitness and training potential. Identify six different factors that could affect health or skill related fitness.

	Factors that affect health and skill related fitness
1	
2	
3	
4	
5	
6	

**Pass/Refer**

### Understand How To Apply The Principles And Variables Of Fitness To An Exercise Programme

Q1

There are various principles and variables that need to be understood and applied when designing an exercise programme. Provide a short description of how the following principles of training will be applied to your clients:

SPECIFICITY (How will you ensure your programme is specific to your clients' needs and goals?)

Learner guidance: give examples or mention SAID principle

RECOVERY TIME (How will you determine what recovery time is required)

PROGRESSIVE OVERLOAD (How will you ensure overload is adhered to)

REVERSIBILITY (How will you prevent reversibility)

ADAPTABILITY (How would you expect the body to adapt when subjected to specific training over time?)



INDIVIDUALITY (What different factors could affect an individual's training performance?)

A large, empty rectangular box with a thin black border, intended for a user to write their answer to the question above it.

Q2

Explain each of the variables within the FITT principles, and how you can adapt/modify or progress each of them over time with clients.

Variables	Explanations	How you can adapt/modify or progress
F _____		
I _____		
T _____		
T _____		

Q3

Give an example of when you need to regress a training programme and explain how you would do this.

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Q4

Describe the effect that the speed of an exercise has on the following:

Posture and technique	
Intensity of a CV exercise	
Intensity of a resistance exercise	

Q5

Explain how each of the following factors affects the intensity of an exercise:

Lever Length	
Resistance	
Gravity	

Q6

Programming exercise to improve physical fitness requires a different approach to programming for health benefits. In the box below describe these differences.

Learner guidance: consider the differences between improving performance, and simply improving health

**Pass/Refer**

### **Understand the exercise contraindications and key safety guidelines for special populations**

Working with any special population on a regular basis requires a full understanding of specific needs.

Q1

Describe two exercise contraindications and two key safety guidelines for working with older people (50 plus)

Learner guidance: Contraindication is a physical or mental condition or factor that increases the risk involved when engaging in particular activity. Contra means 'against'.

Contraindications (exercises to avoid)

Key Safety Guidelines (exercises to include)

Q2

Describe two exercise contraindications and two key safety guidelines for working with antenatal and postnatal clients.

Contraindications (exercises to avoid)

Key Safety Guidelines (exercises to include)

Q3

Describe two exercise contraindications and two key safety guidelines for working with young people (14-16).

Contraindications (exercises to avoid)

Key Safety Guidelines (exercises to include)

Q4

Describe two exercise contraindications and two key safety guidelines for working with disabled people.

Learner guidance: disability include visually impaired or learning disability

Contraindications (exercises to avoid)

Key Safety Guidelines (exercises to include)

**Pass/Refer**

**Understand how to safely monitor exercise intensity**

The talk test, Rate of Perceived Exertion (RPE) scale and using heart rate monitors to monitor different heart rate zones are all different ways to monitor the intensity of an exercise. In the table below describe the benefits and limitations of using each different method.

Method	Benefits	Limitations
The talk test		

Method	Benefits	Limitations
Heart rate monitors to monitor different heart rate zones		



Method	Benefits	Limitations
Rate of Perceived Exertion (RPE)		

**Pass/Refer**

**Understand the health benefits of physical activity**

Q1

Describe three health benefits of physical activity.

Q2

Physical activity can have a positive impact on certain chronic health conditions. Describe the effect that physical activity can have on the following chronic health conditions.

Chronic health conditions	Effects of exercise on causes
Coronary Heart Disease	
Type 2 Diabetes	
Hypertension	
Obesity	
Some cancers	
Osteoporosis	

**Pass/Refer**

**Understand the importance of healthy eating**

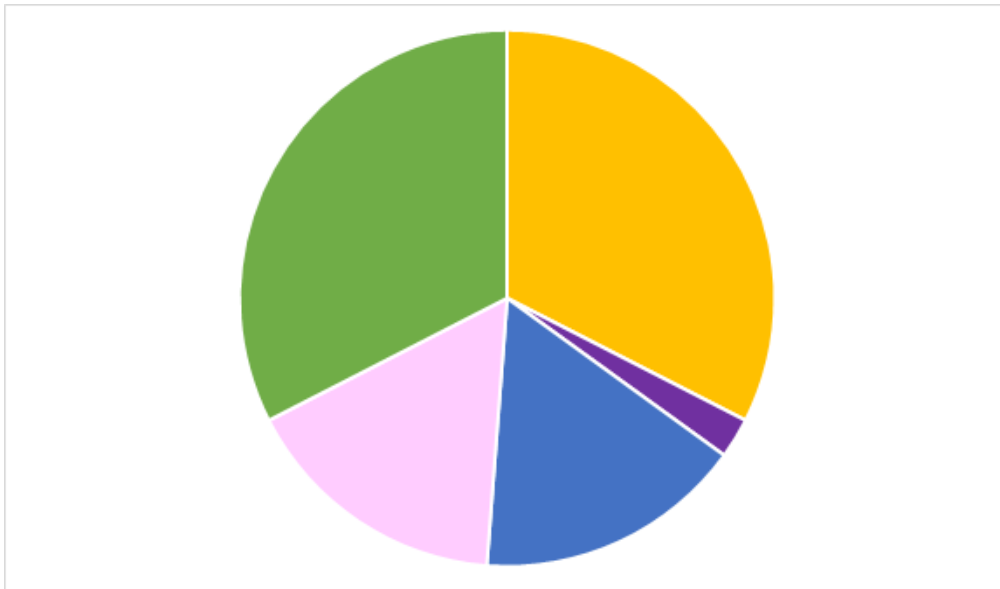
Q1

The national food model in the UK is the 'Eatwell Guide'. The model provides guidance on healthy eating for the general public and aims to ease some of the confusion that often arises when trying to plan a meal.

a) Complete the Eatwell Guide

b) Provide a short paragraph describing the national food model

a)



b)

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Q2

Describe four key healthy eating advice points that underpin a healthy diet

Importance of adequate hydration

Q3

An adequate intake of water is essential for life, health and performance. Explain the importance of adequate hydration.

Learner Guidance: In your answer include how the amount of water required will depend on intensity of activity and environmental temperature.

Q4

Explain two ways you could tell whether your client was dehydrated.

Q5

Which three populations could you not give specific or specialist dietary guidance to?

Q6

For each of the answers you have provided for the previous question, explain what your professional role boundaries are and why you won't provide them specific or specialist dietary guidance.

Q7. It is important that you can show your understanding of all the components that complete a balanced diet, and the requirements of each.  
Please explain the dietary role for both macro and micronutrients, and identify the requirements for them using the UK governments recommendations.

Macronutrients	Explain Dietary Role	Nutritional Requirements (%)
Carbohydrates		
Fats		
Proteins		

Learner guidance: please give a minimum of three examples of recommended daily intake of nutritional requirements for vitamins and minerals

Micronutrients	Explain Dietary Role	Nutritional Requirements (g,mg,mcg)
Vitamins		
Minerals		
Fibre		



Q8 Identify the common dietary sources of each of the following nutrients:

Macronutrients	Sources
Carbohydrates	
Fats	
Proteins	

Micronutrients	Sources
Vitamins	
Minerals	
Fibre	

## Energy Balance

Q9

Energy input and energy output can be adjusted in order to meet individual goals.

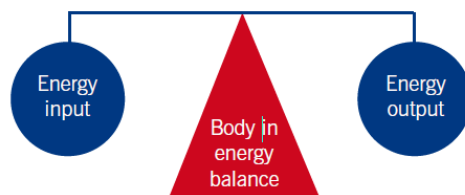
Describe the meaning of energy intake:

Q10

Describe the meaning of energy output:

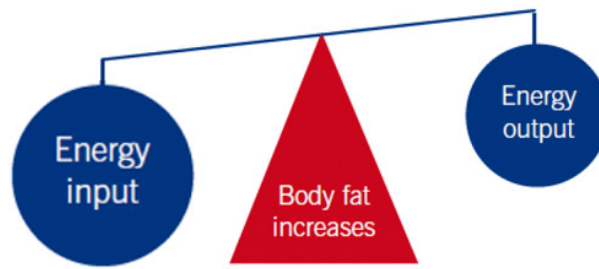
Q11

Below identify whether your clients energy balance would be positive, negative or neutral by looking at the below diagrams. You also need to describe how you came to that decision:



Energy balance: \_\_\_\_\_

Describe how you came to that decision: \_\_\_\_\_



Energy balance: \_\_\_\_\_

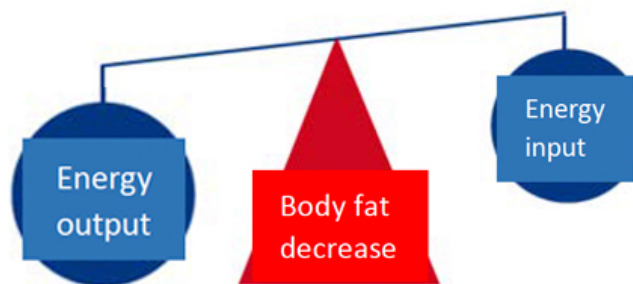
Describe how you came to that decision: \_\_\_\_\_

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Energy balance: \_\_\_\_\_

Describe how you came to that decision: \_\_\_\_\_

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**Pass/Refer**

## Assessor Feedback

## Assessor Feedback