

PHYSICAL EDUCATION PEO2040Y1

INTERNAL ASSESSMENT ACTIVITY

ACHIEVEMENT STANDARD 91329 (VERSION 2) PHYSICAL EDUCATION 2.3

Demonstrate understanding of the application of biophysical principles to training for physical activity

Level 2, Internal assessment
4 credits

STUDENT INSTRUCTIONS

Overview:

This assessment activity requires you to apply theoretical knowledge of biophysical principles; include principles of training, methods of training (components of fitness), aspects of exercise physiology and sport psychology.

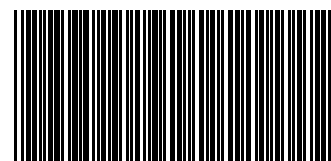
The reflections from each session and the written explanation you gather through your participation and application of the biophysical principles as you work through your training programme will be helpful when you come to write up your final evaluation.

Conditions:

- This must be entirely your own work.
- You must not directly copy work from any source, and any sources you use must be referenced.
- Plagiarism detection software may be used to check this is your own work.

Supervisor requirements

A supervisor must be present at specified times for this assessment. You must provide the full name of the supervisor and their relationship to you (e.g. parent, teacher, teacher aide etc.) when you upload your assessment to the PEO2040Y1 OTLE assessment dropbox.



ASSESSMENT CRITERIA

ACHIEVEMENT STANDARD 91329 (VERSION 2) PHYSICAL EDUCATION 2.3

Demonstrate comprehensive understanding of the application of biophysical principles to training for physical activity.

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the application of biophysical principles to training for physical activity.	Demonstrate in-depth understanding of the application of biophysical principles to training for physical activity.	Demonstrate comprehensive understanding of the application of biophysical principles to training for physical activity.

DEFINITIONS

Demonstrate understanding involves **explaining how and why** biophysical principles are applied to training using examples from own experiences.

*Demonstrate **in-depth** understanding* involves **explaining fully how and why** biophysical principles are applied to training, and the interrelationship between biophysical principles.

*Demonstrate **comprehensive** understanding* involves **evaluating how and why** biophysical principles are applied to training, and the interrelationship between biophysical principles.

BIOPHYSICAL PRINCIPLES

Biophysical principles that relate to training for physical activity include: principles and methods of training, and may include aspects of exercise physiology and sport psychology.

Principles and methods of training may include but are not limited to: frequency, intensity, duration, overload, specificity, reversibility, diminishing returns, continuous and interval training, fartlek, flexibility training, resistance training, and plyometrics. Refer to PEO2041.

Exercise physiology may include but is not limited to: energy systems, respiratory and cardiovascular systems or muscular systems. Refer to module PEO2042.

Sport psychology may include but is not limited to: self-talk, visualisation, mental rehearsal, routines, arousal control, goal setting, confidence, and concentration. Refer to module PEO2042 or PEO2021.

Physical activity may include activity to improve wellbeing or enhance performance. Students will experience and observe the effects of biophysical principles, and become acquainted with the principles and methods of training in movement contexts.

ASSESSMENT ACTIVITY

PHYSICAL EDUCATION

This assessment activity requires you to have participated in a training programme over a minimum of six weeks for a sport or physical activity with the aim to improve specific components of your fitness using and applying the Biophysical Principles.

Consider these Biophysical principles used throughout your training programme.

- Principles of training
- Methods of training
- Exercise physiology
- Sports psychology.

You are required to evaluate in a written report the application of relevant biophysical principles and the inter-relationship of these principles with evidence and examples from your experience through participating in your own training programme. Your explanation will include an explanation of the goal(s), fitness results, strengths/weaknesses, modifications and/or improvements you or others recommended from participating in your training programme.

You can use your own paper to present your final report or you may want to present it in the form of a PowerPoint presentation, seminar-type presentation or video documentary.

You will collect evidence and information in Worksheets 1–3 for your written report to evaluate your training programme.

WORKSHEET 1 (STEPS 1–4 OF ACTION PLAN)

My sport/physical activity: _____

My **SMART goal** for my overall training programme: (This may include improvement to your wellbeing or enhancing your performance)

Add any relevant information to your Worksheets 1–3: Fitness testing results, Overall plan of your training programme, and Monitor/Adjust/reflection sheet for this assessment.

From the evidence you experience and explain in your written worksheets, reflection on your fitness results, strengths, weaknesses and improvements or changes you make along the way in your training programme you will explain in your evaluation the inter-relationship between these principles.

ASSESSMENT ACTIVITY

Complete the table to identify your fitness results throughout your training programme: this will include three fitness test periods – at the beginning of your training before the end of week 2, midway – week 4, and final test – week 6.

Components of fitness	Identify the fitness components specific for your training programme	Fitness test used	First test result-current level of fitness By week 2	Target level of fitness to aim for while training	Mid test: week 4	Final test: week 6

WORKSHEET 2 (STEP 5 OF ACTION PLAN)

OVERALL PLAN OF TRAINING PROGRAMME

Make it enjoyable and convenient to do

Use this worksheet, or create your version, to record your overall plan for your training programme.

Remember to add in some rest days in your plan.

You need to plan a 6–8 week training programme.

MY TRAINING PROGRAMME (WEEKS 6–8)

Complete the table on the following pages to identify and show the biophysical principles; principles of training (SPORRT/FITT) and methods of training you will use throughout your 6–8 week training programme.

ASSESSMENT ACTIVITY

Date started:

Date completed:

	MON	TUE	WED
Week 1			
Week 2			
Week 3			
Week 4			
Week 5			
Week 6			
Week 7			
Week 8			

THURS	FRI	SAT	SUN

WORKSHEET 3 (STEP 6 OF ACTION PLAN)

MONITOR/ADJUST/REFLECT ON YOUR TRAINING PROGRAMME

Use this worksheet, or create your version, to record your weekly training sessions.

We recommend you do five sessions per week plus rest days.

Don't forget to do warm-ups and cool downs each session.

Note: You will need to complete this worksheet three times for week 2, week 4 and week 6 and provide video evidence of a session.

My selected sport/physical activity			
My goal for the week			Start date
	Aim of the session/ what I did (add what you actually did, if it was different from the original aim)	Principles of training used in this session (e.g. SPORRT/FITT and other factors). Explain how you used /applied them with examples	Methods of training used in this session (e.g. continuous, interval, resistance etc.). Explain how you used /applied them with examples
MON			
TUE			
WED			

ASSESSMENT ACTIVITY

THU			
FRI			
SAT			
SUN			

Explain why you chose these **principles of training and methods of training** and how they are relevant to your chosen sport/physical activity.

Sport psychology used (may include self-talk, visualisation, mental rehearsal, arousal control, goal setting, confidence, concentration, feedback, other relevant aspects)

Exercise physiology strategies used (explain the responses on the body)

ASSESSMENT ACTIVITY

Explain the **inter-relationship between** the biophysical principles that you have used and applied. Give reasons and examples to support your statements.

Explain which biophysical principles are the most and/or least beneficial when applied to your training. Give reasons and examples to support your statements.

Weekly evaluation – explain the effectiveness of this week’s sessions: (Include any strengths and weaknesses of the sessions, modifications, improvements and/or recommendations). Give reasons and examples to support your statements.

Explain any recommendations for future training sessions. Give reasons and examples to support your statements.

ASSESSMENT ACTIVITY

Add any relevant information on Worksheets 1–3 *Fitness testing results, Overall plan of training programme, Monitor/adjust/reflect on your training programme* with this assessment.

BIOPHYSICAL PRINCIPLES

Consider the Biophysical principles used throughout your training programme.

- Principles of training
- Methods of training
- Exercise physiology
- Sports psychology.

From the evidence you have experienced and explained in your written worksheets 1–3, reflecting on your fitness results, strengths/weaknesses and modifications/improvements or changes you made along the way in your training programme explain in your evaluation the inter-relationship between these principles.

CHOOSE FOUR PRINCIPLES OF TRAINING YOU USED IN YOUR TRAINING PROGRAMME.

List these on the following pages. Principles of training may include the (SPORT/FITT principle (frequency, intensity, time, type), (specificity, progression, reversibility, rest and tedium). Demonstrate in depth how and why these were applied to the methods of training (continuous, interval training etc.) in your programme. Explain any other Biophysical principles used, exercise physiology and/or sports psychology and explain the methods of training that were used.

Principle of training (SPORT/FITT) 1: _____

How did you apply it to your training programme?

Why did you apply it to your training programme?

List the Methods of Training (continuous, interval training, fartlek, flexibility training, resistance training, plyometrics) used for this principle of training:

1. _____
2. _____
3. _____
4. _____

Why were these methods of training used and how is it relevant to this activity?

Explain any other Biophysical principles used, exercise physiology and/or sports psychology.

ASSESSMENT ACTIVITY

Principle of training (SPORT/FITT) 2: _____

How did you apply it to your training programme?

Why did you apply it to your training programme?

List the Methods of Training (continuous, interval training, fartlek, flexibility training, resistance training, plyometrics) used for this principle of training:

1. _____
2. _____
3. _____
4. _____

Why were these methods of training used and how is it relevant to this activity?

Explain any other Biophysical principles used, exercise physiology and/or sports psychology.

Principle of training (SPORT/FITT) 3: _____

How did you apply it to your training programme?

Why did you apply it to your training programme?

List the Methods of Training (continuous, interval training, fartlek, flexibility training, resistance training, plyometrics) used for this principle of training:

1. _____
2. _____
3. _____
4. _____

Why were these methods of training used and how is it relevant to this activity?

Explain any other Biophysical principles used, exercise physiology and/or sports psychology.

ASSESSMENT ACTIVITY

Principle of training (SPORT/FITT) 4: _____

How did you apply it to your training programme?

Why did you apply it to your training programme?

List the Methods of Training (continuous, interval training, fartlek, flexibility training, resistance training, plyometrics) used for this principle of training:

1. _____
2. _____
3. _____
4. _____

Why were these methods of training used and how is it relevant to this activity?

Explain any other Biophysical principles used, exercise physiology and/or sports psychology.

FINAL ASSESSMENT

Write a report to evaluate your training programme using the following (include information, evidence, examples from worksheets 1–3).

In your evaluation explain the:

- **Principles and methods of training used:** (Explain why this method(s) has been chosen and how it is relevant to your chosen sport/physical activity.) Outline the training programme you developed, explaining how you applied biophysical principles, and why.
 - Explain fully how you applied those particular principles and methods of training to your programme, and why.
- **Exercise physiology strategies used:** (explain the responses on the body)
- **Sport psychology used:** (may include Self-talk, Visualisation, Mental rehearsal, Arousal control, Goal setting, Confidence, Concentration, Feedback, Other relevant aspects.)
- Comment on the **inter-relationship** between the **bio-physical principles** from your weekly evaluations: (reflections on **strengths** and **weaknesses** of your weekly sessions, could there be any **modifications or improvements** made to the application of biophysical principles in your training programme), any recommendations for future sessions or weeks or later training sessions. Describe what changes you would make, and explain why.

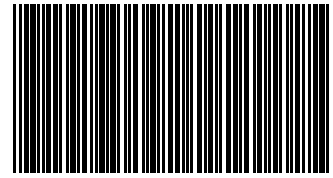
Note: Try to include all the bullet points above in your evaluation.

Your evaluation will demonstrate a comprehensive understanding of how and why you have applied the chosen Biophysical principles to your training programme.



Upload your completed assessment as a zipped file to the PEO2040Y1 OTLE assessment dropbox.

PE02040Y1



STUDENTS – PLACE STUDENT ADDRESS LABEL BELOW OR WRITE IN YOUR DETAILS.

Full Name _____

ID No. _____

Address _____
(If changed)