

Achievement Standard

Subject Reference	Physical Education 2.3		
Title	Demonstrate understanding of the application of biophysical principles to training for physical activity		
Level	2	Credits	4
		Assessment	Internal
Subfield	Health and Physical Education		
Domain	Physical Education		
Status	Registered	Status date	17 November 2011
Planned review date	31 December 2019	Date version published	20 November 2014

This achievement standard involves demonstrating understanding of the application of biophysical principles to training for physical activity.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of the application of biophysical principles to training for physical activity. 	<ul style="list-style-type: none"> Demonstrate in-depth understanding of the application of biophysical principles to training for physical activity. 	<ul style="list-style-type: none"> Demonstrate comprehensive understanding of the application of biophysical principles to training for physical activity.

Explanatory Notes

- This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, Health and Physical Education learning area Level 7 achievement objectives (relevant to the context used), and is related to the material in the *Teaching and Learning Guide for Health and Physical Education*, Ministry of Education, 2011 at <http://seniorsecondary.tki.org.nz>.

Assessment will be consistent with and reflect the underlying and interdependent concepts of the Health and Physical Education learning area: Hauora, attitudes and values, the socio-ecological perspective, and health promotion (*The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, p22).

This standard is also derived from Te Marautanga o Aotearoa. For details of Te Marautanga o Aotearoa achievement objectives to which this standard relates, see the [Papa Whakaako](#) for the relevant learning area.

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

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.

- 3 It is expected that students will have applied biophysical principles to their training for physical activity. Experience of this contributes to the quality of understanding required in this standard. Students will experience and observe the effects of biophysical principles, and become acquainted with the principles and methods of training in movement contexts.
- 4 *Biophysical principles* that relate to training for physical activity include:
 - principles and methods of training, and may include:
 - aspects of exercise physiology
 - aspects of sport psychology.
- 5 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
 - plyometrics.
- 6 Exercise physiology may include but is not limited to:
 - energy systems
 - respiratory and cardiovascular systems
 - muscular systems.
- 7 Sport psychology may include but is not limited to:
 - motivation
 - self-talk
 - visualisation
 - mental rehearsal
 - routines
 - arousal control
 - goal setting
 - confidence
 - concentration.
- 8 *Physical activity* may include activity to improve wellbeing or enhance performance.

- 9 Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards>.
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Replacement Information

This achievement standard replaced AS90434.

Quality Assurance

- 1 Providers and Industry Training Organisations must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Organisations with consent to assess and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference

0233