

Achievement Standard

Subject Reference	Physical Education 2.2		
Title	Demonstrate understanding of how and why biophysical principles relate to the learning of physical skills		
Level	2	Credits	5
		Assessment	Internal
Subfield	Health and Physical Education		
Domain	Physical Education		
Status	Registered	Status date	17 November 2011
Planned review date	31 December 2018	Date version published	20 November 2014

This achievement standard involves demonstrating understanding of how and why biophysical principles relate to the learning of physical skills.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of how and why biophysical principles relate to the learning of physical skills. 	<ul style="list-style-type: none"> Demonstrate in-depth understanding of how and why biophysical principles relate to the learning of physical skills. 	<ul style="list-style-type: none"> Demonstrate comprehensive understanding of how and why biophysical principles relate to the learning of physical skills.

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.

- 2 *Demonstrate understanding* involves explaining how and why biophysical principles relate to the learning of physical skills.

Demonstrate in-depth understanding involves explaining fully how and why biophysical principles relate to the learning of physical skills, as well as the interrelationship between biophysical principles.

Demonstrate comprehensive understanding involves evaluating how and why biophysical principles relate to the learning of physical skills, as well as the interrelationship between the biophysical principles.

- 3 It is expected that students will have been involved in learning opportunities in a skill/physical activity setting and applied biophysical principles as they relate to the learning of physical skills. Experience of this contributes to the quality of understanding required in this standard.

- 4 *Biophysical principles* are aspects of exercise science which may include:

- functional anatomy
- biomechanical principles
- skill learning
- aspects of sport psychology.

- 5 Functional anatomy means the knowledge of anatomy required to support the understanding of biomechanical principles. It may include but is not limited to the:

- movement of bones at joints by major muscles
- description of the joint action.

- 6 Biomechanical principles may include but are not limited to:

- inertia
- momentum
- stability
- balance
- centre of mass
- force
- force summation
- levers
- projectile motion
- basic performance appraisal.

- 7 Skill learning may include but is not limited to:

- stages of learning
- types of practice
- factors affecting learning.

- 8 Sport psychology may include but is not limited to:

- self-talk
- visualisation
- mental rehearsal
- routines
- arousal control

- goal setting
- confidence
- concentration.

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

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