

Dynamic Bodies



KLAs:
Health Science/PDHPE

LESSON TOPIC:
Measurement in Exercise Science

YEAR LEVEL: K-10

DURATION OF ACTIVITY:
45-50 minutes

Sports in all shapes and sizes

In our changing world, exercise and sports science are gaining significance across many industries such as elite sports, as well as in the day to day lives of the general populace. Exploring the foundations of exercise and sports science include employing field techniques to identify athletic performance of students, and relating it to the scientific processes occurring within the human body. This also includes the chemistry of energy production, as well as human structure and the physics of how the body moves through and interacts with its environment.

LEARNING OUTCOMES

Students will:

- Understand the challenges of measuring human performance, and the importance of standardised testing procedures
- Identify appropriate units and devices for measurement in sports science
- Demonstrate differences between subjective and objective measurement and identify the necessity of technology to gain accurate measurements in exercise science
- Conduct an investigation using their own body and performance measurements to determine what factors may influence exercise performance
- Understand some common relationships that exist between different types of physical performance and physiology, and appreciate the principle of training specificity

EXPLORATORY AND PLAY-BASED COMPONENTS

Students will explore their own performance in various athletic activities including running and jumping, and compare their performance to other students, taking into account the wide variety of body types and sizes that might influence this. This play-based activity encourages students to compare their performance with an objective, rather than competitive, attitude to identify how our bodies might respond differently to varied activities and training regimes.

Curious? Learn more at unediscoveryvoyager.org.au

SYLLABUS OUTCOMES

ES1 – S3: SCIENCE

- Skills – Working Scientifically: Ste-4WS; ST1-4WS; ST2-4WS, ST3-4WS

PDHPE

- Skills – Movement: MOES1.4; MOS1.4; MOS2.4; MOS3.4

MATHEMATICS

- Number and Algebra: MA3-7NA
- Measurement and Geography: MA1-9MG
- Statistics and Probability: MA1-17SP

S4 – S5: SCIENCE

- Knowledge and Understanding – Living World: SC5-15LW
- Skills – Working Scientifically: SC4-4WS; SC4-6WS; SC4-7WS; SC4-8WS; SC5-4WS; SC5-6WS; SC5-7WS; SC5-8WS

PDHPE

- Skills – Movement MOS4.4; MOS4.10; MOS4.14; MOS5.4

MATHEMATICS

- Number and Algebra: MA3-7NA
- Working Mathematically: MA4-3WM



Discovery