Unit 514 Understand the principles and application of physiological measurements

UAN:	**A/504/8616**
Level:	Level 5
Credit value:	12
GLH:	80
Relationship to NOS:	This unit is linked to CHS19.
Endorsement by a sector or regulatory body:	This unit is endorsed by Skills for Health.
Aim:	The purpose of this unit is to assess the learner's knowledge, understanding and skills required to take individuals physiological measurements. Learners will understand relevant legislation, policy and best practice for taking measurements; explore the anatomy and physiology associated with physiological measurements; understand the physiological state associated with blood pressure, pulse, temperature, respiration and oxygen saturation levels. On completion of this unit, learners will be able to: • assess the impact of lifestyle, culture and family background on individuals physiological measurements • recognise the deteriorating patient • support others to undertake physiological measurements.

Learning outcome
The learner will: 1. Understand relevant legislation, policy and best practice for undertaking physiological measurements
Assessment criteria
The learner can: 1.1 Describe current legislation, national guidelines, organisational policies and protocols affecting own work practice 1.2 Assess own competence requirements and training needs to maintain best practice

Learning outcome
The learner will: 2. Understand the anatomy and physiology associated with physiological measurements
Assessment criteria
The learner can: 2.1 Explain the anatomy and physiology of the cardiovascular system 2.2 Explain the anatomy of the respiratory system

Learning outcome
The learner will: 3. Be able to assess the impact of lifestyle, culture and family background on individuals physiological measurements
Assessment criteria
The learner can: 3.1 Analyse the impact of **lifestyle, culture and family** background on individuals physiological measurements 3.2 Identify national strategies that would apply to improving individuals' health and wellbeing

Range
Lifestyle eg: • Diet • Exercise • Occupation • Environment/locality **Culture eg:** • Cultural influences • Ethnicity • Beliefs **Family eg:** • Family history • Gender • Age

Learning outcome
The learner will: 4. Understand the physiological state associated with blood pressure
Assessment criteria
The learner can: 4.1 Explain the **physiology** of blood pressure 4.2 Explain how homeostasis maintains blood pressure 4.3 Analyse individuals clinical conditions that affect blood pressure

4.4 Propose actions to correct abnormal blood pressure

Range
Physiology: • Systolic and diastolic • Ranges within differing age groups

Learning outcome
The learner will: 5. Understand the physiological state associated with a pulse
Assessment criteria
The learner can: 5.1 Explain the **physiology** of a pulse 5.2 Explain how homeostasis maintains pulse rate 5.3 Analyse individuals clinical conditions that affect pulse and rhythms 5.4 Propose actions to correct abnormal pulse rates and rhythms

Range
Physiology: • Ranges within differing age groups • Rate • Rhythm • Depth • Regularity

Learning outcome
The learner will: 6. Understand the physiological state associated with temperature
Assessment criteria
The learner can: 6.1 Explain homeostatic principles of temperature 6.2 Explain normal ranges of temperature 6.3 Analyse individuals clinical conditions that affect body temperature 6.4 Explain how changes in temperature could affect other aspects of physiological measurements

Learning outcome
The learner will: 7. Understand the physiological state associated with respiration
Assessment criteria
The learner can: 7.1 Explain the **physiology** of respiration 7.2 Explain how homeostasis maintains respiration 7.3 Analyse individuals clinical conditions that affect respiration 7.4 Propose actions to correct abnormal respiration

Range
Physiology: • Ranges within differing age groups • Rate • Rhythm • Depth • Regularity

Learning outcome
The learner will: 8. Understand the physiological state associated with oxygen saturation levels
Assessment criteria
The learner can: 8.1 Explain the **physiology** of oxygen saturation 8.2 Explain homeostatic principles of oxygen saturation 8.3 Analyse individuals clinical conditions that affect oxygen saturation levels 8.4 Analyse external factors that affect oxygen saturation levels 8.5 Propose actions to correct abnormal oxygen saturation levels

Range
Physiology: • Acceptable levels within age groups

Learning outcome
The learner will: 9. Be able to recognise the deteriorating patient
Assessment criteria
The learner can: 9.1 Explain the signs and symptoms that indicate patients/clients are deteriorating 9.2 Discuss the ABCDE approach and actions taken to assess each step 9.3 Propose actions to escalate care

Learning outcome
The learner will: 10. Be able to support others to undertake physiological measurements
Assessment criteria
The learner can: 10.1 Deliver **training** to **others** to enable them to undertake appropriate physiological measurements 10.2 Assess **others** learning and application of skill within the work setting in line with local policy

Range
Training: • practical and theoretical • full range of applicable documentation **Others** may include: • colleagues • carers • relatives • patients/client