

Cambridge National Sport Science (Award) – Curriculum Map



Richard Barnes Academy

LO1 – key components of the musculoskeletal and cardio-respiratory systems, their functions and roles

- **Musculoskeletal system** - Key components, functions and roles
- **Cardio-respiratory system** - Key components, functions and roles



RO43 - The body's response to physical activity

- Coursework based unit (4 tasks, 60 marks)
- Key components, roles, functions and importance of musculoskeletal and cardio respiratory systems
- Short and long term responses of physical activity on musculoskeletal and cardio respiratory systems



Progress into Year 11 and onto the certificate



LO2 – Different training methods target different fitness components

- **Aerobic and Anaerobic** (differences, examples)
- **Components of Fitness** (CV endurance, strength, power, agility, balance, flexibility, Muscular endurance)
- **Training methods** (CV, Resistance, Power, Flexibility, Agility, Balance)

LO3 – Be able to conduct fitness tests

- **Maximal and Submaximal** (differences, examples)
- **Test protocols** (CV endurance, strength, power, agility, balance, flexibility, Muscular endurance)
- **Test results** (compare to normative data)



LO4 – Develop fitness training programme

- **Designing a programme** (individual details, aims/goals, targets, duration principles of training, suitability)
- **Evaluating a programme** (measurement, reflection, improvements)

LO1 –Principles of training in a sporting context

- **Specificity** (Sport, muscles)
- **Progression** (FITTA)
- **Reversibility** (Injury/Illness)
- **Moderation** (Age, Gender, experience)
- **Variance** (boredom)



RO42 - Applying principles of training

- Coursework based unit (5 tasks, 60 marks)
- Principles of training, Training methods, Fitness testing, Training programme and review

LO4 – How to respond to common medical conditions

- **Asthma** (Symptoms and treatment)
- **Diabetes** (Type 1, Type 2, Symptoms and treatment)
- **Epilepsy** (Symptoms and treatment)

LO3 – How to respond to injuries in a sporting context

- **Types** (Acute and Chronic)
- **Soft tissue injuries** (Strains, Sprains, fractures, cramp)
- **Overuse injuries** (Tendonitis, Tennis elbow, Shin splints)
- **Concussion and Abrasions** (Grazes, cuts and blisters)
- **Contusions/ Haematomas** (bruises)
- **Injuries related to children** (Osgood-Schlatters disease)
- **Treatments** (RICE, SALTAPS, Slings/splints, bandages/taping, hot/cold, EAP)



LO2 – How appropriate warm up and cool down routines can help to prevent injuries

- **Planning** (Environmental factors, suitability, individuals)
- **Warm ups** (5 stages, physical benefits, psychological benefits)
- **Cool downs** (2 stages, Physical benefits)



Your CNAT Sport Science Journey starts here ...

Autumn Term



Introduction to Sport Science

What is CNAT Sport Science?
Expectations of the course
Overview of what's ahead

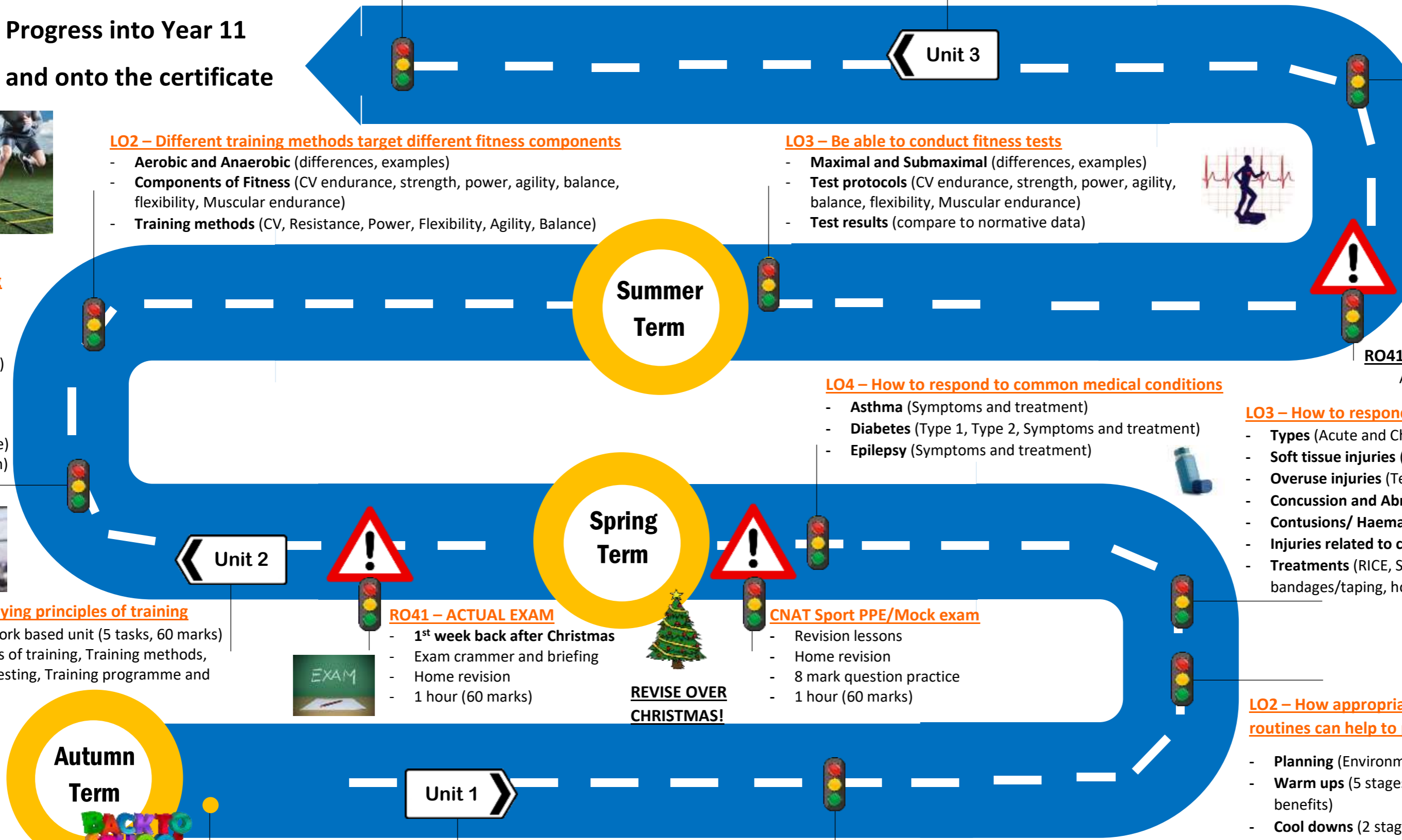
RO41 – Reducing the risk of sports injuries

- EXAM Component of the course
- Exam usually first week back after Christmas holidays
- 1 hour (60 marks)



LO1 - Different factors which influence the risk of injury

- **Extrinsic factors** (Type of activity, coaching, Environmental factors, Equipment, Safety hazards)
- **Intrinsic factors** (Physical preparation, Individual variables)
- **Psychological factors** (Motivation, Aggression, Arousal)
- **Posture** (Causes, Pelvic tilt, Kyphosis, Round shoulders, Lordosis, Scoliosis)



Summer Term

Spring Term

Autumn Term

Unit 3

Unit 2

Unit 1



REVISION OVER CHRISTMAS!

RO41 – ACTUAL EXAM

- 1st week back after Christmas
- Exam crammer and briefing
- Home revision
- 1 hour (60 marks)

CNAT Sport PPE/Mock exam

- Revision lessons
- Home revision
- 8 mark question practice
- 1 hour (60 marks)

RO41 EXAM RESITS (Early May)

Attend revision sessions