



Course Outline

IGCSE PE Year 10

Inspiring excellence, empowering global minds

Overview

The IGCSE Physical Education syllabus at GEMS Wesgreen International School aims to provide children with an opportunity to study the practical application of the theoretical aspects of sport. Assessment of their practical performances, in a range of different sports develops children's skills in the applied practical sciences, physiology and psychology. This explains some of the social and cultural aspects of Physical Education and Sport in the community. A high-quality physical education curriculum inspires all children to succeed and excel in competitive sport and other physically demanding activities. It provides opportunities for children to become physically confident in a way, which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect.

Learning Outcomes

The Physical Education syllabus provides learners with an opportunity to study both the practical and theoretical aspects of physical education. This design encourages the enjoyment of physical activity, by providing learners with an opportunity to take part in a range of physical activities and develop an understanding of effective and safe physical performance. Learners develop an appreciation of the principles and practices of Physical Education that underpin improving performance and leading a health active life.

In physical education, the national curriculum focusses on the skills to,

- Define the term health, for example: 'a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity'.
- Explain how to maintain physical wellbeing.
- Explain how to maintain mental wellbeing.
- Explain that physical fitness is a relative concept; you can be fit for one task but not fit for another.
- Explain the difference between physical health and physical fitness.
- Explain the meaning of the terms exercise and training.
- Define physical fitness.
- Define the term skill or skilled performance.
- Analyse, interpret and evaluate information on the concepts of health, physical fitness or skilled performance.

- Understand how key influences, affect their own and others' ability to sustain involvement in physical activity.
- Personal characteristics and the nature of physical activities, such as introvert or extrovert, motivation, arousal and competition.
- Work-leisure balance, such as, occupation and type of work.
- Define the term diet and explain why we need to eat food.
- Know and understand the components of food: carbohydrates, fats, proteins, vitamins, minerals, dietary fibre and water.

Ongoing Objectives

The aims of the Physical Education Syllabus are to encourage and enable children,

- To explain the factors that can affect energy needs, for example metabolism, age, body size, body composition, gender, physical activity levels and climate.
- Compare and contrast diets for health and diets for peak physical fitness.
- To understand the characteristics and effects of unbalanced, healthy diets.
- To analyse, interpret and evaluate information on diet.
- To explain the effects of nicotine, tar and carbon monoxide on physical performance.
- To explain the long-term effects of smoking on health.
- To explain the factors that affect energy needs and distinguish between rest and sleep.
- To explain how the lifestyle choices of diet, smoking tobacco, alcohol, drugs and exercise can affect the quality of sleep.
- To explain the effects of rest and sleep on physical performance and health.
- To analyse, interpret and evaluate information given on rest and sleep.

Unit Overview

Term 1

Unit 1 -The skeletal and muscular system

Approximate length: 4 weeks

Children will develop knowledge about the skeleton and muscular system. They will learn the major bones in the human body and practise naming them. Children will practice classifying bones according to their type. They will learn the eight types of movements that occur at a joint. Children will understand how muscle's work antagonistically.

Specific National Curriculum Objectives Covered:

- To outline the four functions of the skeleton.
- To outline the four main pairs of movement at a joint.
- To understand how muscles work in pairs to create movement.

- Identify the action of antagonist and agonist muscles.

Unit 2 – Respiratory System

Approximate length: 4 weeks

Children will develop knowledge about the skeleton and muscular system. They will complete and label a diagram of their respiratory system that identifies the different parts and their functions. They will learn how to draw diagrams that show the pathway of air as it enters and leaves the body. They learn to identify sports that require an efficient respiratory system.

Specific National Curriculum Objectives Covered:

- To identify the different components of the respiratory system.
- To describe the pathway of air into the body.
- To outline the role and importance of each of these during the mechanics of breathing.
- To describe the effect of exercise for the volumes of tidal volume, tidal capacity, residual volume and minute ventilations.

Unit 3 – Circulatory System

Approximate length: 4 weeks

Children will develop knowledge about the skeleton and muscular system. They will create a mind map for the components of blood and their link to the circulatory system. They will explain the circuit of blood and blood type. They will design a circuit training session using the structure of the heart and will investigate the effects of exercise on heart rate, stroke volume and cardiac output.

Specific National Curriculum Objectives Covered:

- To identify the location of each section of the heart.
- To describe the functions of atria, ventricles and valves.
- To describe pathway of blood through the heart.
- To demonstrate understanding on the pathway that blood follows.

Unit 4 – Energy supply and the effect of exercise in the body **Approximate length: 4 weeks**

Children will develop knowledge about the energy supply and the effect of exercise in the body. They will discover ways to recall the word equations for aerobic and anaerobic respiration. They will draw a flow chart to show where glucose comes from, how it is produced. They will make a list of sports and physical activities that depend on different types of respiration. They will interpret the graphs showing the effect of short-term exercise on heart rate and breathing rate and outline a training programme to increase the body's tolerance of lactic acid.

Specific National Curriculum Objectives Covered:

- To describe the process that involves converting food to energy.
- To state the equations for both aerobic and anaerobic respiration.
- To identify the immediate effects of exercise on the body.

Unit 5 - Simple Biomechanics**Approximate length: 4 weeks**

Children will develop knowledge about biomechanical systems. They will understand the key functions of simple biomechanical models and their relationship with movement and sports performance. Children will investigate Newton's Laws of Motion and the concepts they help to explain. They study different sporting situations and describe how forces are applied.

Specific National Curriculum Objectives Covered:

- To identify the meaning of force.
- To understand and apply the equations involving force, mass and acceleration.
- To identify and sketch the three classes of levers.
- To describe how levers help performance in different sporting situations.

Unit 6 - Health and wellbeing**Approximate length: 4 weeks**

Children will develop knowledge about their health and wellbeing. They will explain what is meant by 'health' as defined by WHO (World Health Organization). They will describe what is meant by physical, mental and social wellbeing and explain the benefits of working to improve these aspects.

Specific National Curriculum Objectives Covered:

- To explain the relationship between health and fitness.
- To outline the function of carbohydrates, fats and proteins in providing energy.
- To describe which foods are sources of nutrients.
- To explain how food sources contribute to energy produced.
- To identify the different tests used to assess health-related fitness and skill-related fitness.

Term 2**Unit 7 - Training****Approximate length: 4 weeks**

Children will develop knowledge about how to train. They will examine the principles of successful training and identify what makes a good programme. Children will investigate the six commonly used methods of training, as well as more specialized approaches. They will summarise the danger of over training in a personal exercise plan. Children will perform a targeted warm-up and cool-down different physical activities.

Specific National Curriculum Objectives Covered:

- To understand the principles of training known as SPORT.
- To apply these principles to a training programme.
- To explain the dangers of over training.
- To understand the physiological reasons for a warm-up and a cool-down.

- To create a warm-up and a cool-down for a specific physical activity.

Unit 8 - Skills and acquisition**Approximate length: 4 weeks**

Children will to develop knowledge about the acquisition of skill. They will explore what the difference between skill and ability. They will investigate different aspects of learning, including information is processed and the benefits of good feedback and guidance. They will learn the six characteristics of a skilled performance, with examples from different sports. Children will learn the four types of guidance and give sporting examples for each one at the different stages of development.

Specific National Curriculum Objectives Covered:

- To identify the six main characteristics of a skilled performance.
- To explain the role and importance of these characteristics in different sports.
- To explain the difference between short-term and long-term memory.
- To explain the importance of receiving good feedback and the impact it can have on performance.

Term 3**Unit 9 - Psychology****Approximate length: 4 weeks**

Children will develop knowledge of sport psychology. They will develop an understanding and appreciation of the psychological aspects of sport and physical activity. This includes looking at how individuals approach activities, such as setting goals and motivation. It also deals with the pressure of competing, such as the effects of arousal and anxiety. They will investigate the use of relaxation techniques to reduce the negative effects of the limiting factors. Children will apply the seven principles of SMARTER goal setting and suggest activities that introvert and extroverts are best suited to, along with reasons for this.

Specific National Curriculum Objectives Covered:

- To understand the principles of SMARTER goal setting.
- To suggest how to set SMARTER targets appropriate to the physical activity.
- To define the term arousal.
- To explain the benefits of relaxation techniques in reducing anxiety and arousal.

Unit 10 - Social and cultural influences**Approximate length: 4 weeks**

Children will to develop knowledge about Social and cultural influences in sport. They will develop their understanding of the social and cultural influences on sport and sporting performance. They will create a table of factors that influence people's choice of recreational activities. Children will find examples of each of the factors that affect access to physical activities. They will explore the

history of sport in terms of amateur and professional participation. They will assess the positive and negative arguments for introducing new technology into sport.

Specific National Curriculum Objectives Covered:

- To explain the terms 'leisure', 'physical recreation', 'play' and 'sport'.
- To outline the factors that influence the recreational activities people take part in.
- To describe the factors that have influenced the growth of leisure activity.
- To identify the factors that affect access to physical activity.
- To describe the factors that affect participation in sports and physical activities.

Unit 11 Ethics and other issues

Approximate length: 4 weeks

Children will develop knowledge about sporting ethics and other issues relating to sports activities. They will develop an understanding of the ethical influences on sport to enhance performance. Children will explore how to assess and minimise the risk involved in physical activity, and learn how to treat common injuries. Children will investigate the four types of performance enhancing drugs and their link to particular sports.

Specific National Curriculum Objectives Covered:

- To describe the different types of performance enhancing drugs and their effects on performance.
- To understand the reasons why some performers use prohibited performance enhancing drugs.
- To explain the disadvantages of using performance enhancing drugs.
- To describe the negative consequences of drug scandals.
- To identify and describe the differences between real and perceived risk.

Assessment

Formative: Throughout each episode, lesson and within the IGCSE syllabus, feedback is maximised to focus children on exam technique and applying their learning coherently. Formative written feedback, in the copybooks and oral comments given immediately after learning, steer children to more formal examination based answers and mark schemes. High quality peer feedback is scaffolded and developed, so that children are analytical in their feedback. This can be further reflected on for self-assessment. Children are empowered to make decisions on the direction of their learning. They evaluate and analyse their performance in both practical and theory lessons and activities. The course also provides many opportunities to kinesthetically assess the theory work as well as the practical work. The standard of performance is assessed against the past paper mark schemes and success criteria from the IGCSE specification. This helps children improve on their performances as they progress across the course. They are also given the opportunity to use mechanical and technological

sports apparatus, which provide a constant stream of immediate feedback for the tracking of assessment. Alongside assessed pieces of work, teachers will carry out ongoing formative assessments and give children regular formative feedback to help them improve.

Summative: Due to the nature of the subject and course, feedback is given at the end of each chapter and unit. As the IGCSE in Physical Education is split into 50% theory and 50% coursework, the children are assessed on physical activities from the different categories in the practical coursework guidelines. The department internally assesses the marks and then externally submits the marks through video evidence, to the exam board. Children will complete an end of chapter test every few weeks as well as mid-term tests, practical projects and an end of term exam.