

**Specialised Fitness Training**

**Hand in printed off first Sport Science lesson**

**Student name:**

**Teacher name: Saffers**

**BTEC National Extended Certificate in Sport and Exercise Sciences**

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| **ASSIGNMENT BRIEF -** |
| **Introduction -** You will explore the fitness requirements, physical characteristics and demands of the sports that contribute to effective training and sports performance. You will then investigate methods of training for physical and skill-related fitness that will improve this performance. You will then examine the principles that underpin the design of periodised training programmes and training sessions. Finally, you will carry out the planning of programmes and training sessions for a chosen sport.  **How does this assessment link to the unit as a whole?** When designing a training and fitness programme for a chosen sport or position within a sport, for example a goalkeeper in Hockey you must understand the fundamentals of the activity. By exploring the fitness requirements, physical characteristics and demands of the sport, you will be in a better position to design an effective programme and sessions. |

**Learning Aim -** In this unit you will

**A:** Examine the fitness requirements, physical characteristics and demands of sport that contribute to effective training and performance.

**Scenario –** Within your study programme at college, you will have the opportunity to undertake work experience in a field of work that may currently interest you. If you work in the sporting, fitness or health sector, you will need to understand the requirements, physical characteristics and demands of sport. This would help you when discussing different sports with the athletes you may encounter.

**Purpose/Audience –** This report aims to help other sport students on your course who need a wider range of knowledge in different sports to help them with their progression after they have completed their college studies.

Write a report that relates your chosen sport or exercise to the following components of fitness:

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| **Fitness demands of the sport** | **Explain** |
| **Cardiovascular endurance** |  |
| **Strength – isometric and isotonic (concentric and eccentric)** |  |
| **Localised muscular endurance** |  |
| **Explosive power** |  |
| **Speed** |  |
| **Agility** |  |
| **Balance** |  |
| **Proprioception** |  |
| **Speed endurance** |  |
| **Flexibility** |  |
| **Reaction time** |  |

This is a sample one to help:

**Speed** is the ability to move all the body as quickly as possible. A gymnast needs excellent speed when performing on the floor as they need to quickly move to keep in time with the music, they also need speed to generate power before leaps and tumbles. The gymnast is required to sprint about 8 meters before doing a tumble on the floor, this is so the gymnast can generate enough power to successfully land the tumble therefore it is important that the gymnast has good speed. The component speed also requires the use of leg muscles such as the calves, hamstrings and quadriceps. These muscles are used to enable the gymnast to move quickly and generate enough speed, they are needed throughout the whole floor routine. During a floor routine the gymnast uses this component regularly as the gymnast needs to quickly move from one area of the floor to another and it is also needed to generate speed before a tumble or leap. If the gymnast doesn’t have enough of this component before doing a leap, then the gymnast will not get the height needed therefore they will not perform the skill to their best ability and the judges will deduct points from their score. In contrast if the gymnast has too much speed then it will help the gymnast whilst performing on the floor.

If you experience any difficulties with this piece of work please email Saffers ([gs@asfc.ac.uk](mailto:gs@asfc.ac.uk))