



Getting Ready for...

KS4 (GCSE) PE

Commissioned by GCSEPod.

This resource is strictly for the use of schools, teachers, students and parents and may not be sold. It may be freely downloaded for the purposes of teaching and study during the coronavirus pandemic and until such time that GCSEPod decides. All opinions and contributions are those of the authors. The contents of this resource are not connected with, or endorsed by, any other company, organisation or institution. All rights reserved.

To find out more about subscribing to GCSEPod with access to hundreds of resources for teachers, students and parents please go to www.gcsepod.com

April 2020



Activities

1. Components of Fitness

- Can you name the 5 components of fitness?
- Can you say how each component of fitness enables a person to stay physically fit?
- Different sports require different types of fitness. Can you extend your knowledge further by selecting a sport of your choice and writing which components of fitness are important to being good at that sport and why?

2. Skill-related components of fitness

As well as 5 components of fitness, there are 6 skill-related components of fitness.

- Learn the acronym A, B, C, P, R, S for skill-related components of fitness. What do each of these letters stand for?
- Select another sport of your choice and write which skill-related components of fitness are required for it.
- Can you extend your knowledge further by writing why each one is important for that sport?

3. A balanced diet

- Can you identify the components of a balanced diet and why they are important to our diet?
- What is the importance of protein for people that participate in sport, and can you name foods that this can be found in?
- Carbohydrates can be divided into simple and complex carbohydrates. Can you say why carbohydrates are important to athletes and what foods can they be found in?

Can you extend your knowledge further by saying how and why athletes 'carbo load' prior to an event?

- Why is it important to stay hydrated and drink plenty of water?





4. The consequences of a sedentary lifestyle

Leading a sedentary lifestyle can be damaging for a person's health.

- Can you explain what the risks are of leading a sedentary lifestyle?
To help you with this you could think about type 2 diabetes and coronary heart disease. You could also think about what sedentary behaviour can include; such as sitting at a desk, being at home watching TV, playing computer games, being on the internet, travelling by car or sitting on a train or bus.
- Can you extend your knowledge and write how a person could counteract some of these sedentary behaviours? For example, by standing at work stations rather than sitting at a desk.

5. Minimising the risk of injury

- Which sports can you think of where you have to wear protective equipment as part of the rules of the game?
- Why do gymnasts and cyclists wear lycra when participating in their sport?
- What different types of footwear can be worn for different sports to minimise the risk of injury?
- What is the correct method of lifting a heavy piece of sport equipment?
- Can you extend your knowledge and explain why it is important to do a warm up before taking part in any exercise and a cool down at the end?



6. Structure and function of the skeleton

The skeleton has 5 functions: support, movement, protection, blood production and mineral storage.

- How does the skeleton provide support and why is it so important in providing movement in sports?

Can you extend your knowledge by writing how the skeleton provides movement?

- Why is it so important for the skeleton to protect some parts of our body?
- Why is red blood cell production so important in a sport that requires a lot of endurance?





7. Use of data

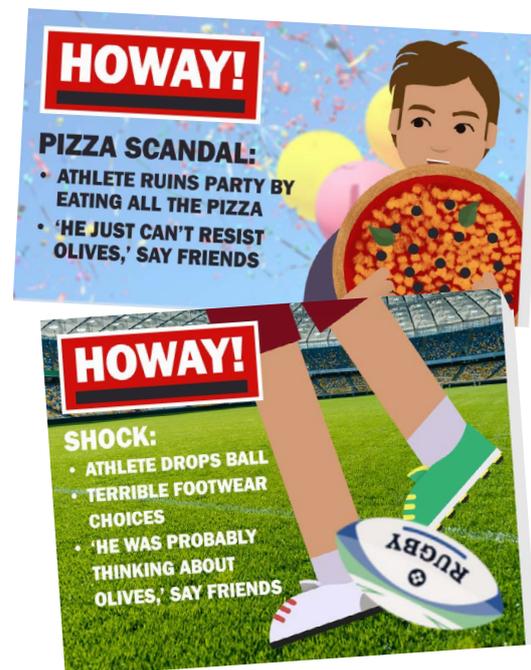
When studying Physical Education, you may be asked to interpret data.

There are 2 types of data: qualitative and quantitative.

- What is quantitative data and how can it be used in sport?
- What is qualitative data and how can it be used in sport?
- How could both of these types of data be presented?
- Can you extend your knowledge by recording data and completing a line graph for the following?
 1. Take your heart rate before starting exercise
 2. Record your heart rate after 2, 4 and 6 minutes of exercise
 3. Record your heart rate every minute after exercise for 5 minutes
 4. Plot your heart rates on a line graph to show this data
- Can you explain what has happened to your heart rate at different stages of the graph?

8. Positive and negative impacts of sponsorship and media

- What is commercialism in sport?
- Can you list any negative impacts of sponsorship and media, with some examples?
- How can sponsorship and media be positive for sport?
- Can you extend your knowledge by researching a sponsorship of a sports team of your choice? Discuss whether this is a good sponsor for that sport and the reasons why.



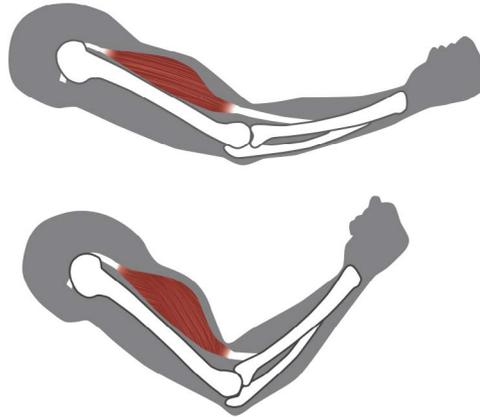
9. Main muscles in the body

There are anterior muscles found in the front of our body and posterior muscles found in the back of our body.

- What are the 3 types of muscle, and what are each of their functions?
- Find a diagram of the muscular system from the internet. Locate where the following muscles are found in the body and say whether they are anterior or posterior:



- Pectorals
- Triceps
- Biceps
- Hamstrings
- Quadriceps
- Deltoid
- Gastrocnemius
- Latissimus dorsi



- Can you extend your knowledge by designing a circuit training plan? Name which muscles are mainly used at each station.

10. Short term effects of exercise

When studying Physical Education, you will study the cardiovascular system, the respiratory system, the muscular system and the skeletal system. There are short term effects of exercise that occur within each of these body systems immediately after exercise or within 24-48 hours.

- What is the difference between stroke volume and cardiac output? To extend your knowledge, can you say what happens to these during exercise?
- What does vascular shunt do in exercise?
- Respiratory rate and tidal volumes both increase in exercise. What are respiratory rates and tidal volumes?
- What 3 things can occur in the muscles when they are used for physical activity?
- To extend your knowledge further, can you say what effect lactic acid has on your muscles?

