

GCSE PE – Advent Calendar



01/12/2019



What is the function of plasma?

Explain how oxygen and carbon dioxide are exchanged between alveoli and Capillaries.

Give the compositions of inhaled and exhaled air.

Describe what is meant by tidal volume and vital capacity.



02/12/2019



Describe aerobic and anaerobic respiration.

What is the main fuel source used in both aerobic and anaerobic activity?

Why do muscles become fatigued during anaerobic activity, and how do they recover?

Explain why your depth and rate of breathing increases during exercise.

03/12/2019



Why do heart rate and rate of breathing increase during exercise?

Explain what vasodilation and vasoconstriction are and why they happen.

How does regular exercise benefit the bones, ligaments and tendons?

What is muscle hypertrophy and why does it happen?

04/12/2019



Explain why regular exercise leads to increased oxygen supply to the muscles.

Name the four components of a lever system.

What is the effort arm of a lever? What is the weight arm?

Give two examples of first class levers in the body.



05/12/2019

Name the five main functions of the skeleton.

State the four main types of bone in the body.

Name the five regions of the vertebral column.

Which two bones meet to make the hip joint?



06/12/2019

Which joint movement involves pointing the toes upward?



Give an example of a condyloid joint.

What is the function of; Cartilage, Ligaments and Tendons?

What is the function of the synovial membrane within a joint?



07/12/2019

Which type of muscle is involved in moving the skeleton?

Which two muscles make up the antagonistic muscle pair operating at the elbow joint?

What is the difference between an isometric and an isotonic muscle contraction?

Why would type IIA and IIX muscle fibres not be suitable for us in a marathon?



08/12/2019

What are the three main functions of the Cardiovascular system?

Which vein does deoxygenated blood pass through the entre the heart?

The pulmonary artery carries oxygenated blood to the rest of the body. True or False?

Name the three main types of blood vessel found in the body.



09/12/2019



Which class lever is used in the foot when jumping?

Which lever class is used during elbow flexion?

Explain what is meant if a lever system in the body has either mechanical advantage/disadvantage.

How do you calculate the mechanical advantage of a lever?

10/12/2019



Which class lever always has mechanical advantage?

When does a first class lever have a mechanical advantage?

What is a plane of movement?

Which plane of movement divides the body into top and bottom?



11/12/2019

Which plane of movement divides the body into left and right?

Which plane of movement divides the body into front and back?

What is an axis of movement?

What axis runs through the body from top to bottom?



12/12/2019

What axis runs through the body from front to back?

What axis runs through the body from left to right ?

Which plane and axis are used during both tucked and picked somersaults?

Which plane and axis are used during a Cartwheel?



13/12/2019

Which plane and axis are used during a full twist jump in trampolining?

What is the definition of fitness?

What is the definition of performance?

Give two ways that exercise can help to keep you healthy.



14/12/2019

What is cardiovascular endurance?

Give an example of a sport where muscle endurance is important.

Define flexibility. Give one benefit of increased flexibility for an athlete.

Describe coordination. How does having good coordination help a sprinter?



15/12/2019

What is power? Give an example of when power would be needed in golf.

Describe the Harvard step test. Which component of fitness does it measure?

Outline a fitness test that measures; speed, power, muscular endurance, agility.

Which component of fitness does the sit and reach test measure? What units are the results in?



16/12/2019

What is meant by a reliable fitness test?

What are the four principles of FITT?

Describe how to calculate your anaerobic training zone.

Describe the interval training method. Give an advantage and disadvantage.



17/12/2019

Which component of fitness does plyometric training improve?

How is overload achieved in circuit training?

Describe common differences in pre-season and playing-season training programmes.

What does PARQ stand for? Should it be used before or after a training programme?



18/12/2019

Outline two benefits of warming up and two benefits of cooling down.

Name the soft tissues damaged in; an abrasion, a sprain, a strain.

Give three symptoms of a concussion.

What does RICE stand for? Give two types of injury that can be treated with the RICE method.



19/12/2019

Describe the positives and negatives effects of; beta blockers, diuretics, stimulants.

Which performance – enhancing drugs mimic the male sex hormone testosterone?

Give two physical health benefits of physical activity.

What effect does regular aerobic exercise have on blood pressure?



20/12/2019

Which bone disease can weight - bearing exercise help prevent?

How can exercise make you feel good?

Give two social health benefits of sport.

Physical activity can increase your confidence. Is this a physical, emotional or social benefit?



21/12/2019

How can diet have a positive effect on health?

What effect does alcohol have on reaction time?

State two health problems that can be caused by smoking.

Give one long term effect of not getting enough sleep.



22/12/2019

Define a 'sedentary lifestyle'. How is it connected to obesity?

What are two health risks associated with a sedentary lifestyle?

What is a 'balanced diet'?

Are proteins macronutrients or micronutrients?



23/12/2019

Name a macronutrient that provides lots of energy that can easily be used by the body.

How does protein help you recover after exercise?

Give two reasons why the body needs vitamins.

Which mineral is necessary for making red blood cells?



24/12/2019

Explain what happens to your blood when you become dehydrated.

State two effects of over hydration.

What role does fibre play in a balanced diet?

What type of athlete uses carbohydrates loading?



25/12/2019

Even we wouldn't be that mean!

Merry Christmas

