


PE REVISION

MISS TAYLOR

REVISION TASKS

- For each of the papers you must pick one topic to revise – this must be a topic that you have previously identified as a weakness from an exam or from when you have highlighted the end of topic specifications in your book.
- Once you have picked which topic you are going to revise – navigate to that topics slide.
- On the slide for each topic there are 3 tasks for you to complete and then a mini quiz. You must do these in the relevant exercise book.
 - Paper 1 Topics = YELLOW exercise book.
- Once you have completed the revision tasks in your book you then need to upload a photo of your work to that weeks assignment.
- You will have the Wednesday and Thursday lesson to complete your work.

Use BBC Bitesize to help you with your tasks. <https://www.bbc.co.uk/bitesize/examspecs/ztrcg82>



ANATOMY AND PHYSIOLOGY/ PHYSICAL TRAINING

PAPER I

1.1A STRUCTURE AND FUNCTION OF THE SKELETAL SYSTEM

REVISION TASKS

TASK 1 - LOCATION OF BONES

Task 1: Draw or Print out a diagram of the skeleton then label all of the bones.

Radius	Cranium
Femur	Clavicle
Tibia	Sternum
Fibula	Clavicle
Carpals	Scapula
Tarsals	Ribs
Metacarpals	Humorous
Metatarsals	Ulna
Phalanges x 2	Pelvis
	Vertebrae

Extension Task:

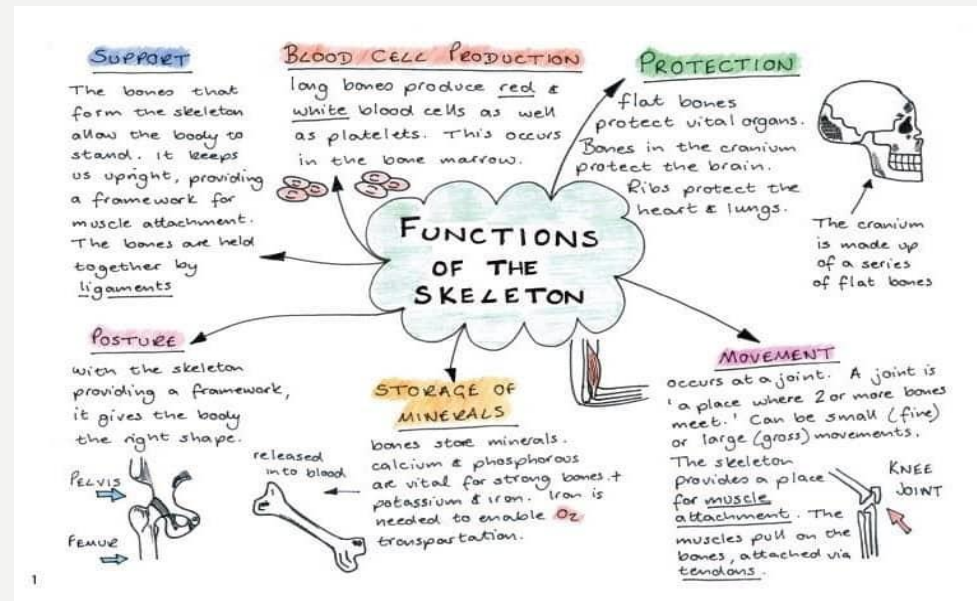
Can you label the different joints identifying the type of joint and the movements that take place at the joint

- Shoulder
- Hip
- Elbow
- Knee



TASK 2: FUNCTIONS OF THE SKELETON

Task 2: create a spider diagram for the 6 functions of the skeleton. You must include the definition for each function (AO1)



Extension Task:

For each of the functions of the skeleton apply to a practical example (AO2) and evaluate its effects on the athletes performance (AO3)

TASK 3: TYPES OF JOINTS AND MOVEMENT

Task 3: copy out and complete the table.

Sporting Action	Type of Movement	Location of Joint	Type of Joint
Cricket Bowl			
Tennis Serve			
Bicep Curl			
Star Jump			
Front Crawl Arms			
Breastroke Legs			
Golf Swing			

MINI QUIZ

- **Task:** Without your notes answer the following questions.

1. Name three of the six functions of the skeleton.
2. What are the two types of joint?
3. What type of joint is the hip?
4. What is the name of the bone located in the upper leg?
5. Describe the location of the scapula.
6. Name the articulating bones of the elbow joint.
7. What types of movement can take place at the knee?
8. Give a sporting example of when **abduction** may occur.
9. In a boxing match the cranium protects the brain, what function of the skeleton is this?
10. Other than bones, what are the three other components of a synovial joint?

1.1B STRUCTURE AND FUNCTION OF THE MUSCULAR SYSTEM

REVISION TASKS

TASK 1 – LOCATION OF MUSCLES

- Task 1: print or draw a diagram of the human body identifying all of the major muscle groups.

Muscles:
Deltoid
Trapezius
Pectorals
Triceps
Biceps
Abdominals
Latissimus Dorsi
Gluteals
Quadriceps
Hamstrings
Gastrocnemius



TASK 2 – FUNCTION OF MUSCLES

- Task 2: Match the muscle to the movement that it provides. Write down the name of the muscle and then the function that it links to.

Muscles:

Deltoid
Trapezius
Pectorals
Triceps
Biceps
Abdominals
Latissimus Dorsi
Gluteals
Quadriceps
Hamstrings
Gastrocnemius

Functions:

- Lifting the arm at the shoulder
- Plantar flexion of the ankle (pointing the toes downwards)
- Hip extension (moving the femur backwards)
- Flexion of the elbow (bending the arm)
- Shoulder horizontal extension (moving the arms backwards at shoulder level)
- Flexion of the knee (bending the leg)
- Extension of the elbow (straightening the arm)
- Extension of the knee (straightening the leg)
- Adduction of the shoulder (moving the arm towards the body)
- Flexion of the spine (sitting upwards)
- Adduction of the shoulder (moving the arm down towards the mid-line of the body)

- **Extension Task**

Provide a practical example for each of the muscles and movement

TASK 3 – ANTAGONISTIC MUSCLE PAIRS

- Task 3: Look at the four images, and work out what the following are:
- Agonist
- Antagonist
- Fixator

Knee Drive in Sprinting



Backhand Release Phase



Shot Putt – Preparation



Rugby Kick – Execution



Extension Task

Pick two of the sporting movements one for the knee and one for the elbow then write a paragraph explaining the use of antagonistic pairs during the movement. Make sure you identify they type of movement and which muscle is the agonist and which is the antagonist and why! Include how the muscles change roles.

MINI QUIZ

- **Task:** Without your notes answer the following questions.
 1. What is the name of the muscle across the top of the back?
 2. What muscle is contracting during a sit up to allow this movement?
 3. Describe the location of the deltoid.
 4. What movement occurs at the elbow when the biceps contracts, flexion or extension?
 5. What are the three major muscles that a tennis player would use to play a forehand shot?
 6. Give a sporting example of when the gastrocnemius would contract.
 7. What happens to the length of the muscle when a muscle contracts.
 8. What is the role of the 'fixator'?
 9. The hamstrings and quadriceps are an example of an antagonistic pair. Give another example of an antagonistic pair.
 10. Give a sporting example of when an antagonistic pair work together to produce movement.

1.1C MOVEMENT ANALYSIS

REVISION TASKS

TASK 1 – LEVER SYSTEMS

Task 1: for each of the lever systems draw a diagram, identify what the effort, fulcrum and load are, provide a sporting example, then state if it has mechanical advantage or disadvantage and why?

Example of layout:

First Class Lever

Diagram of Lever

Fulcrum = Name of Joint

Effort = Name of Muscle

Load = Name of Load

Sporting Example =

Mechanical Advantage =

Repeat for all 3 of the lever systems! Extension can you evaluate the effect the lever system has on an athletes performance based on whether it has mechanical advantage or disadvantage.

TASK 2 – PLANES OF MOVEMENT AND AXIS OF ROTATION

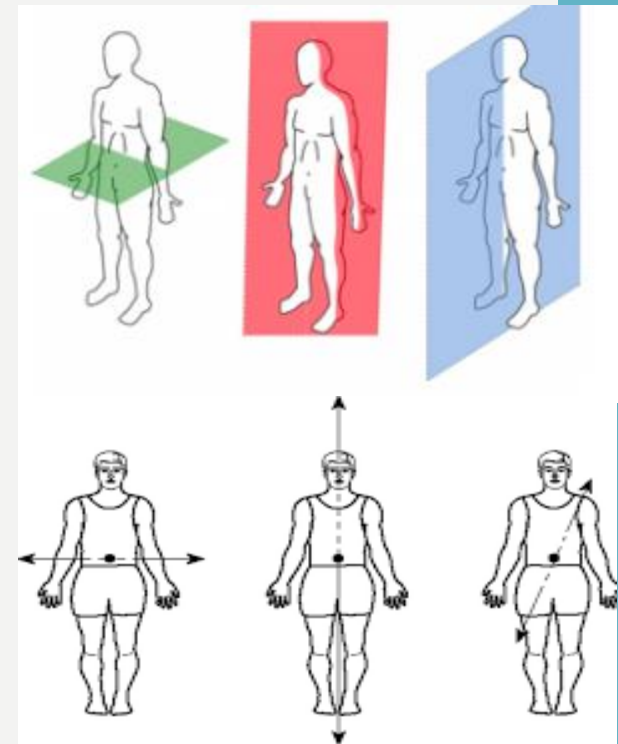
Task 2: create a poster that shows the 3 planes of movement and the 3 axis of rotation.

The poster must include the following information:

- Diagrams of the planes of movement
- Diagrams of the axis of rotation
- The movement that happens in each plane
- Practical example for each plane and axis

Extension task:

Include how the plane of movement and axis of rotation link together



MINI QUIZ

- **Task:** In your green mini quiz books, without your notes answer the following questions.



1. Which type of lever is shown on the board?
2. Give a sporting example of a first class lever.
3. A netballer standing on their tip toes to mark another player is an example of which lever?
4. What is meant by the term 'mechanical advantage'?
5. What are the three planes of movement?
6. Usain Bolt's running action takes place in which plane of movement?
7. Give a sporting example of a movement that takes place in the frontal plane.
8. Which axis runs through the body horizontally from front to back?
9. Give a sporting example of an action that takes place on the longitudinal axis.
10. A somersault takes place on which axis?

1.1D THE CARDIOVASCULAR AND RESPIRATORY SYSTEM

REVISION TASKS

TASK 1 – PATHWAY OF BLOOD

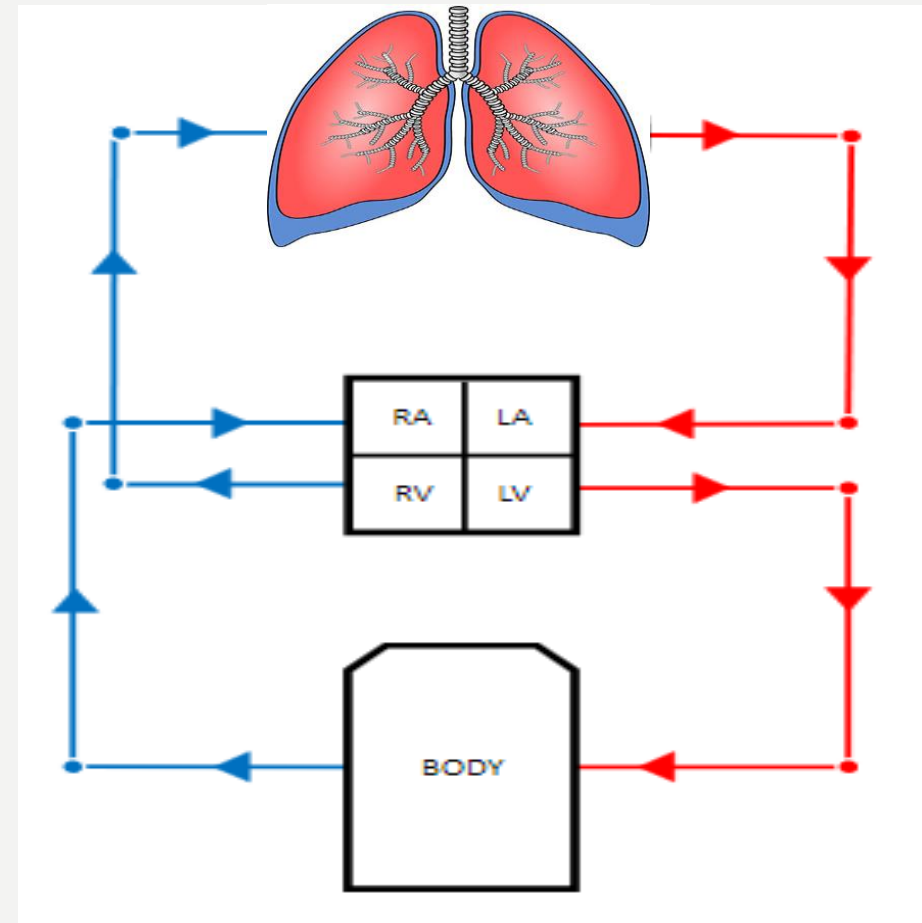
Task 1: copy out the diagram on the slide. Then use the key terms to label the pathway of blood. You will need to mark on the diagram where the valves are.

Key terms:

Pulmonary Artery, Lungs, Body, Vena Cava, Right Atrium, Left Atrium, Right Ventricle, Left Ventricle, Tricuspid Valve, Bicuspid Valve, Semilunar Valve x2, Aorta, Left Ventricle

Extension Task:

Underneath your diagram can you write a paragraph about how the heart operates as a double circulatory systems? What are the names of the two systems?



TASK 2: ARTERIES, VEINS AND CAPILLARIES

- Task 2: copy and complete the table on arteries, veins and capillaries.

Name of blood vessel	Diagram	Role	Characteristics
Arteries			
Veins			
Capillaries			

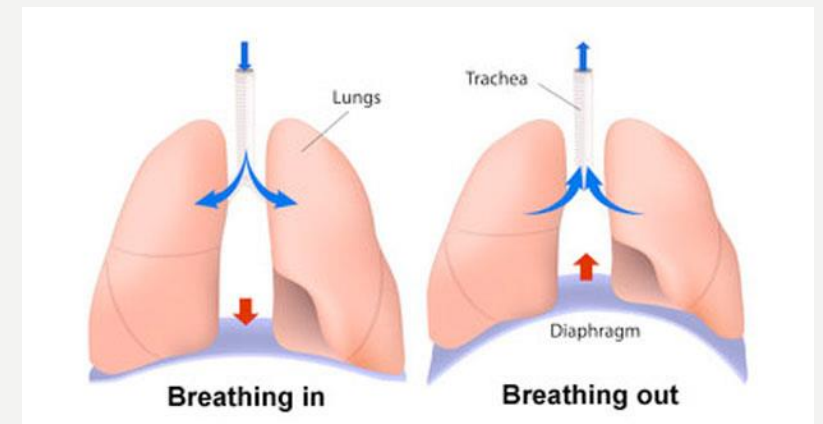
TASK 3: RESPIRATORY SYSTEM

Task 3: Create a poster for the respiratory system. The poster must include the following:

- A diagram of the respiratory system which is then labelled with the key terms: nose, mouth, trachea, bronchi, bronchioles, alveoli.
- A diagram that shows the mechanics of breathing (inspiration and expiration).
- You must include what happens to the diaphragm and intercostal muscles during inspiration and then during expiration.

Extension Task:

What is the role of capillaries during exercise?



MINI QUIZ – CARDIOVASCULAR SYSTEM

- **Task:** Without your notes answer the following questions.
 1. State 3 differences between veins and arteries.
 2. What structure divides the heart into two halves?
 3. Where are the tricuspid valves found?
 4. What is the function of valves?
 5. Name the 4 chambers of the heart.
 6. Name the 4 major blood vessels.
 7. Define stroke volume.
 8. What is the equation for cardiac output?
 9. Does cardiac output increase or decrease during exercise? Why?
 10. What is the role of red blood cells?

MINI QUIZ – RESPIRATORY SYSTEM

- **Task:** Without your notes answer the following questions.
 1. What is the name of the muscle located below the lungs that aids inspiration and expiration?
 2. What is the next stage in the pathway of air after the air and mouth?
 3. What is the name of the process where carbon dioxide and oxygen are transferred?
 4. Which type of blood vessel covers the alveoli to allow this to take place?
 5. Define tidal volume.
 6. What happens to breathing rate during exercise and why?
 7. What is the equation for minute ventilation?
 8. Give a sporting example of aerobic respiration.
 9. Give a sporting example of anaerobic respiration.
 10. Would a weightlifter be exercising aerobically or anaerobically?

1.1E EFFECTS OF EXERCISE ON THE BODY SYSTEMS

REVISION TASKS

TASK 1:

- Create a mind map of the short term effects of exercise. You must include the following body systems:

Cardiovascular system

Muscular system

Respiratory system

What are the short term effects for each systems, don't forget definitions!

Extension task:

Apply a practical example to each of the body systems and evaluate how the short term effects taking place have an effect on the athletes performance.

TASK 2:

Task 2: Create a story board for an athlete of your choice taking part in a training programme. What long term effects are they going to see. Make sure you mention all 4 of the body systems (Muscular, Skeletal, Cardiovascular and Respiratory).

Extension Task:

Can you evaluate how the changes that are taking place will have an impact on their sport.

MINI QUIZ – SHORT TERM EFFECTS OF EXERCISE

This mini quiz is slightly different to previous mini quizzes. There are multiple marks available for each question but only 3 questions.

1. List the 9 short term effects of exercise on the body systems (9)
2. Characterise which body system each effect falls under (9) – Next to each effect write **M** for muscular system, **C** for cardiovascular system or **R** for respiratory system.
3. State two ways that we can increase the amount of energy we create (2)



1.2A

COMPONENTS OF

FITNESS

REVISION TASKS

TASK 1: COMPONENTS OF FITNESS

Task 1: create a mind map of all of the 10 components of fitness. Your mind map must include the definitions for each component, and link to a sporting example.

1. Cardiovascular Endurance
2. Muscular Endurance
3. Flexibility
4. Strength
5. Balance
6. Power
7. Coordination
8. Speed
9. Agility
10. Reaction Time

Extension Task:

Can you evaluate how the component of fitness has a positive effect on the athletes performance, be sure to use specific examples!

MINI QUIZ



- **Task:** Without your notes answer the following questions.

1. List 5 components of fitness we have learnt so far.
2. Which component is 'the ability to move quickly across the ground or move limbs rapidly through movements.'?
3. Explain a sporting example of someone who would need cardiovascular endurance.
4. The 1 minute sit up test is the fitness test for which component?
5. Which component is 'a combination of strength and speed'?
6. Explain a sporting example of someone who would need muscular endurance.
7. The 12 minute cooper run is the fitness test for which component?
8. Explain a sporting example of someone who would need speed.
9. Explain a sporting example of someone who would need strength.
10. Explain a sporting example of someone who would need power.

1.2B PRINCIPLES OF TRAINING

REVISION TASKS

TASK 1: PRINCIPLES OF TRAINING

Task 1: create a training programme for a sport of your choice. Your training programme must be 6 weeks long and it must include the principles of training. There is a template for you to use on the next slide.

Specificity

Progression

Overload (Frequency, Intensity, Time and Type)

Reversibility

Questions to think about:

What sport are you going to plan for? How many training sessions will you do a week? What type of training will you do and why? How long will you training for? How will your training programme show progression and overload? How is the training specific to the athlete?

TRAINING PROGRAMME:

Week 1						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Weight Training Legs	Rest	Continuous Training	Rest	Weight Training Upper Body	Rugby Skills Training	Rest
Week 2						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 3						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Here is a template you can use, what type of exercise will you do each week can you justify why? In week 2 you might increase the amount of exercise you do or how long you train for.

You must do this for 6 weeks!

TASK 2: METHODS OF TRAINING

Task 2: create an information booklet on the methods of training. The booklet must include:

- Front cover
- Contents page
- All of the methods of training
- For each method of training there must be a definition, examples, components of fitness it improves, type of sports person who would use it.

Extension Task:

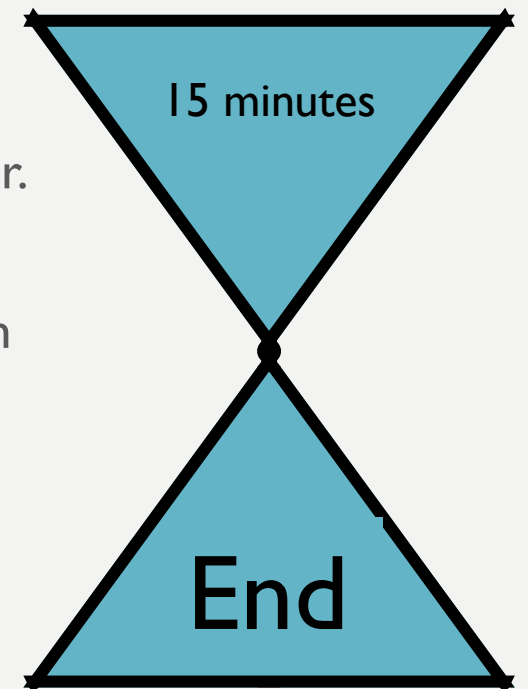
Include the advantages and disadvantages of each exercise.

6 MARK QUESTION PRACTICE – YOUR TURN!

With sporting examples, discuss the use of the principles of training to improve fitness. (6)

The structure of your answer should be:

- A short introduction that addresses the question and introduces your answer.
- Two main paragraphs – state your point showing your knowledge and understanding (AO1), provide a relevant sporting example (AO2) and explain how this analyse/evaluate performance in sport (AO3) (How does it help performance? How would performance be effected without it?)
- A conclusion that summarises your answer and makes reference to the question again.



1.2C PREVENTING INJURY IN PHYSICAL ACTIVITY AND TRAINING

REVISION TASKS

TASK 1 – WARM UP AND COOL DOWN

Task 1: create a warm up and cool down for an athlete of your choice. You must include all of the components of a warm up and cool down providing examples of each

Extension task:

What are the benefits of a warm up and why is important for an athlete to warm up. What are the benefits of a cool down and why is it important for an athlete to cool down.



TASK 2: PREVENTING INJURY IN SPORT

Task 2: design a safety in sport poster. How can athletes and coaches prevent injury occurring in a sports setting.

Include the 5 prevention methods with an explanation of how each one prevents injury. Bonus points by including examples!

- Conducting a warm up and a cool down.
- Using the correct clothing and footwear.
- Wearing personal protective clothing.
- Ensuring that the level of competition is appropriate/matched.
- Lifting and carrying equipment safely.

MINI QUIZ

- **Task:** Without your notes answer the following questions.
 1. What are the five methods of preventing risks and hazards in sport?
 2. What should all participants ensure they do before they begin to exercise?
 3. Why is this important? What is the purpose of this?
 4. Give a sporting example of where having an appropriate level of competition is important.
 5. Give a sporting example of a sportsperson who would wear protective clothing and explain why.
 6. Give a sporting example of where using the correct technique to lift and carry equipment is important.
 7. Name a piece of protective clothing that an American footballer would use and explain why.
 8. Name two things that should be checked before using a sports hall.
 9. Name a potential hazard that could occur on a playing field.
 10. Name an injury that could occur on an artificial pitch and how this could be prevented/reduced.