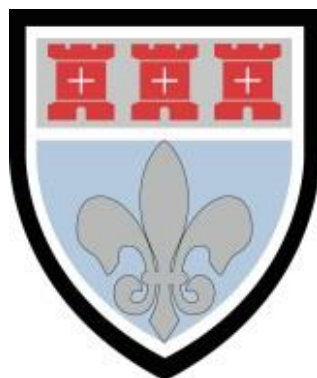




AQA GCSE Physical Education

Extension Work Booklet

Name.....

Tutor Group.....



Introduction and Contents

Welcome to GCSE Physical Education! This work booklet will be like your bible! Please ensure you have this with you for every lesson.

If at any point, you find you have finished the classwork quickly before your peers, then use this work booklet as an extension task linked to the learning of the lesson. If you do not get a chance to complete this booklet in class, you should be completing it as home learning in preparation for your GCSE PE exam!

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'I'm finished' tasks

Page 45-50	-Difficulty: Green – Easiest, Amber – Medium, Red – Most difficult
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Chapter 3: Physical Training

3.1 Health and Fitness

Define Health:

Define Fitness:

Question: A person with back pain is not healthy. However, despite their ill-health, they can train to increase their fitness. How would someone with back pain train to increase their fitness?

Task: Create 2 exam questions with an appropriate mark scheme.

Question1:

Mark Scheme

Question 2:

Mark Scheme

3.2 Components of Fitness

TASK - MATCH THEM UP

AGILITY	The ability of the heart and lungs to supply oxygen to the working muscles	A tennis player hitting a tennis ball
SPEED	The ability to use two or more different parts of the body together, smoothly and efficiently	A gymnast performing a handstand
BALANCE	The maximum rate at which an individual is able to perform a movement or cover a distance in a period of time, putting their body parts into action as quickly as possible.	A rugby player sprinting to score a try
CARDIOVASCULAR ENDURANCE	The ability to move and change direction quickly, at speed, while maintaining control	A netballer dodging a defender
COORDINATION	The ability to keep the body stable by maintaining the centre of mass over the base of support	A football goalkeeper reaching to block a ball
FLEXIBILITY	Refers to the range of movement possible at a joint	An athlete throwing the shot putt
REACTION TIME	The ability of a muscle or muscle group to undergo repeated contractions, avoiding fatigue.	A sprinter reacting to the start gun
POWER	Is the product of strength and speed	A rower using their arms in a long distance race
MUSCULAR ENDURANCE	The time taken to start responding to a stimulus.	A weightlifter lifting weights
STRENGTH	The ability to overcome resistance	A marathon runner

3.3 – 3.14 Fitness Testing

Why is Fitness Testing used?

Which test measures agility?

Which test measures balance?

Which test measures cardiovascular endurance?

Which test measures coordination?

Which test measure flexibility?

Which test measures muscular endurance?

Which test measures power?

Which test measures reaction time?

Which test measures maximal strength?

Which test measures speed?

Which test measures strength?

Task: Create an exam question with an appropriate mark scheme.

Question1:

Mark Scheme

3.15 The Principles of Training

What does SPORT stand for?

- A. Specificity, Progressive Overload, Reliability, Tedium
- B. Specificity, Progressive Overload, Reversibility, Tedium
- C. Specificity, Progressive Overload, Recovery, Tedium
- D. Specificity, Progressive Overload, Rest, Tedium

Question:

A 50m sprint swimmer wants to improve his time in a race and his coach has included weight training in his training programme to help him to do this.

Using the FITT principle, explain how the swimmer's coach would apply frequency and intensity to the weight training programme in order to increase fitness levels (4 marks)

Answer:

Task: Create an exam question with an appropriate mark scheme.

Question1:

Mark Scheme

3.16 Training Thresholds

19 *In order to be assessed in the Fitness and Health activity area, John has decided to plan a training programme.*

19 (a) *Explain how John would calculate his maximum heart rate. (2 marks)*

Answer:

19 (b) *Identify the different training zones and explain how John can use them to get the most out of his training programme. (6 marks)*

Answer:

3.17 Types of Training

Activities



- 12** The 1968 Olympics were held in Mexico City at an altitude of 2240 metres above sea level. Find out about the impact the altitude had on many of the competitors.
- 13** It is important to select the type of training that will best develop the component of fitness a performer has identified they need to improve or optimise in order to be successful in their chosen sport or physical activity.
- a)** Choose one or more types of training that will help you develop each component of fitness listed in your answer to Activity 2a.
- b)** Explain why you have chosen each type of training.

Activity



- 7 a)** Design a circuit, with between six and ten stations, to develop cardiovascular endurance.
- b)** Choose a sport and identify one component of fitness that is essential to that sport. Now add two stations to your circuit that would train that component of fitness.

3.18 Preventing Injury

List the 9 rules and create a sport example for each one where the rule is relevant to that specific activity!

1.

2.

3.

4.

5.

6.

7.

8.

9.

3.19 Training Seasons

Your task is to create a training seasons plan for a sport of your choice in the space in below taking into consideration everything that you have learnt in the lesson...

3.20 Warming up and cooling down

For a sport of your choice, give specific examples of how you would carry out an effective warm up and cool down...

Warm Up

Stage 1: Pulse Raising

Stage 2: Stretching

Stage 3: Skills practice

Stage 4: Mental preparation

Cool Down

Stage 1: Pulse lowering

Stage 2: Stretching

Chapter 1: Applied Anatomy & Physiology

1.1. The structure and functions of the skeleton

1. Find examples of bones acting to protect vital organs – name the bones and what they are protecting (list below)

2.

Activity



- 2 a)** Mime any normal, everyday physical movement, such as lifting your arm to pour the kettle, turning on a light, or stepping into the bath.
- a)** Identify exactly which joints are allowing the movement to take place.
 - b)** For each joint, identify what type of joint it is. Is it a ball and socket joint or a hinge joint?
 - c)** For each joint, identify what type of movement takes place. Is it flexion, extension, adduction, abduction, rotation, plantar flexion or dorsiflexion?

List your examples below:

3. Which one of the following is not an articulating bone at the shoulder

a) Fibula b) Humerus c) Scapula d) Tibia

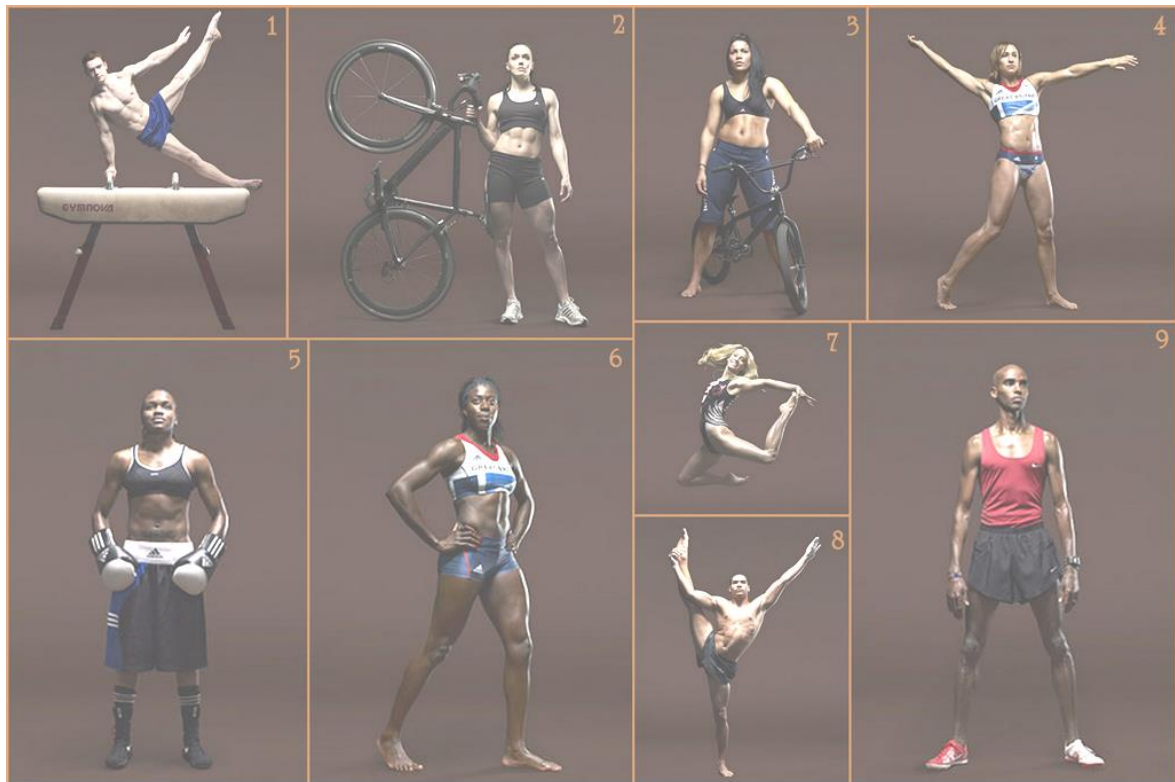
4. Identify two types of movement that can occur at a ball and socket joint (2 marks)

5. Movement occurs when the skeletal and muscular systems combine. Identify which joints enable the action of kicking a football (3 marks)

1.1 The structure and functions of the muscular system

1. Which one of the following describes an isometric contraction?
 - a) The muscle lengthens when it contracts
 - b) The muscle shortens when it contracts
 - c) The muscle stays the same length
 - d) The muscle contracts

Check out the Olympic athletes below and discuss how their muscular systems can help them win in their particular event!



1.2 The structure and functions of the cardio-respiratory system

Create a word search containing all the keywords from topic 1.3 – the answers should have definitions (not just the key word!)

[illegible]

1.3 Aerobic and Anaerobic Exercise

Your task is to pick a sport and write a newspaper article linking it to both aerobic and anaerobic exercise to educate someone who has no idea what these terms mean.... Good luck!

1.4 The effects of exercise

Can you link the components of fitness to the long term effects of exercise below?

Chapter 2: Movement Analysis

2.1 Types of Levers

Activity



- 1 a)** Take part in, or watch a video of, the take-off phase of a long jump. What sort of lever is being used at the ankle?
- b)** Using a small hand-weight, or a similar object, perform a bicep curl. What sort of lever is being used at the elbow?
- c)** Draw a simple diagram of each action. Label the load, effort and fulcrum.



2.2 Basic movements

Activity



- 2 Observe a practical session and carry out some basic movement analysis by identifying examples of extension, flexion, abduction, adduction, rotation, plantar flexion and dorsiflexion. If you are able to, recording the action using a video analysis app, a camera or your phone and playing it back will make this task slightly easier.
- 3 Look at these photographs and use your knowledge of basic movements **and** levers to describe:
 - a) what is happening at the elbow and shoulder joints.
 - b) what is happening at the hip, knee and ankle joints.



▲ Figure 2.17



▲ Figure 2.18

2.2 Basic movements

Exam-style questions

0 1 Which **one** of the following describes a third class lever?

- A** The effort is in the middle of the lever
- B** The load is to the right of the fulcrum
- C** The load is in the middle of the lever
- D** The fulcrum is on the left of the lever

[1 mark]

0 2 Which **one** of the following movements would best describe the arm action of a swimmer using the butterfly action?

- A** Adduction
- B** Rotation
- C** Abduction
- D** Flexion

[1 mark]

0 3 Which **one** of these movements occurs around the longitudinal axis?

- A** A cartwheel
- B** A front somersault
- C** A 360° spin
- D** A backflip

[1 mark]

0 4 . **1** Describe the plane of movement a gymnast performs a cartwheel in.

[2 marks]

0 4 . **2** Describe the axis of rotation about which a gymnast rotates when performing a cartwheel.

[2 marks]

0 5 . **1** **Figure 1** shows a footballer kicking a ball.



Figure 1

Identify the lever system that operates at the knee joint.

[1 mark]

0 5 . **2** Complete **Figure 2** by drawing the lever system identified in **5.1**, labelling the fulcrum, effort and load. [1 mark]

Figure 2



0 6 Discuss whether second or third class levers are more important to the performance of a sprinter. [6 marks]

2.3 Planes of movement & axis of rotation

Identify the planes of movement and axis of rotation in the following images:



Chapter 4: Sports Psychology

4.1 Skill and ability

Activities



- 1**
 - a)** In a small group, list ten different sport or physical activity skills. For example, an uppercut in boxing and shooting in netball.
 - b)** On a large sheet of paper, draw the four skills classification continua and add each skill to each continuum.

Basic _____ Complex
Open _____ Closed
Self paced _____ Externally paced
Gross movement _____ Fine movement
 - c)** Justify your decisions. Practise performing the skills to help fully support your decisions with evidence.
- 2** Discuss the link between the different components of fitness and the different classifications of skills. Coordination has already been mentioned when discussing basic and complex skills. What other links can you think of?

Create a word cloud diagram for all the key terms of chapter 4.2! See an example of a word cloud diagram below...



4.3 Information processing

Look at the photograph below. Describe the four steps of the basic information processing model as they apply to the snooker player



4.4 Guidance and feedback on performance

Activity



- 5** Discuss which types of guidance you might use if you were teaching/coaching the following, and how your chosen type of guidance would benefit the performer:
 - a)** A beginner in badminton
 - b)** A beginner in gymnastics
 - c)** A local club-level footballer
 - d)** A local club-level netballer
 - e)** An advanced triple jumper
 - f)** An advanced golfer.
- 6** Identify an Olympic-standard competitor in an athletics event and find out what feedback methods their coaches use to help them optimise their performance.

Activities



- 7** Think back to the last time you participated in a sport or physical activity. What was the best example of feedback you received at that time? Which type of feedback was it? How did it help you to improve?
- 8** Now think back to the scenarios you considered in Activity 5 and discuss which types of feedback would benefit the six performers listed in the activity.

4.5 Arousal

Activity

DATA



- 9 a)** Identify two recent sporting situations where you used gross movement skills and two recent sporting situations where you used fine movement skills.
- b)** Draw an 'inverted-U' graph for each sporting situation, remembering to label the axes correctly, and plot your arousal level.
- c)** Analyse the data recorded on your graphs. Was your arousal level optimal in each situation? Why?

A large, empty, light gray rounded rectangle with a blue border, intended for drawing an inverted-U graph and plotting arousal levels.

Activity



- 10** Use these stress management techniques while you are performing. Keep a journal to record your experiences. Write down how you felt immediately before using each technique, how you performed the technique and how you felt afterwards. Did your performance improve as a result?

4.6 Aggression

Can you think of a time in your sports career when you became aggressive or frustrated?

Write down exactly what happened below?

What type of aggression was this?

Did this aggression enhance your performance?



4.7 Personality Types

From the lesson can you write a detailed statement for each image below based on what you have learnt today... remember, the more detail the higher the mark!



Exam-style questions

- 0 1** Which **one** of the following is not a skill classification?
- A Basic
 - B Extrinsic
 - C Closed
 - D Self paced
- [1 mark]**

- 0 2** Which **one** of these does the 'A' in the SMART target technique for goal setting stand for?
- A Attainable
 - B Achievable
 - C Action-oriented
 - D Accepted
- [1 mark]**

- 0 3** Which **one** of the following is an example of intrinsic motivation?
- A I want my coach to congratulate me after I beat my personal best today.
 - B I want to beat my personal best today.
 - C I want to win the trophy today.
 - D I want the crowd to go wild when I beat my personal best today.
- [1 mark]**

- 0 4** . **1** Describe a sport particularly suited to an extrovert personality type.
- Use an example in your answer.
- [2 marks]**

- 0 4** . **2** Describe a sport particularly suited to an introvert personality type.
- Use an example in your answer.
- [2 marks]**

- 0 5** . **1** What is manual guidance?
- [1 mark]**

- 0 5** . **2** Describe a sporting situation where manual guidance would be appropriate.
- [2 marks]**

- 0 6** Using the stages of the information processing model, explain how a striker takes a shot at goal during a football match.
- [6 marks]**

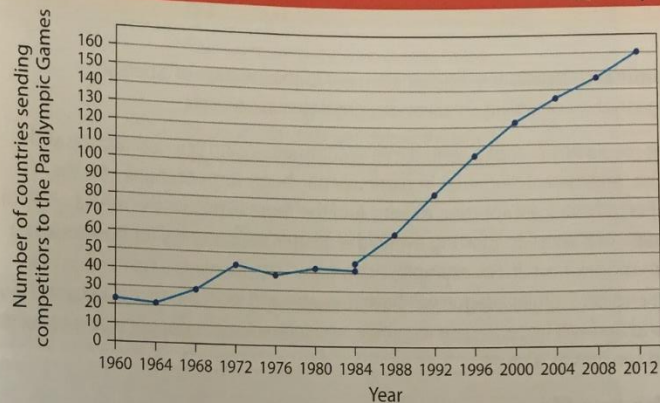
Chapter 5: Socio-cultural Influences

5.1 Social groups and factors affecting participation

Activities

11 Study these two graphs:

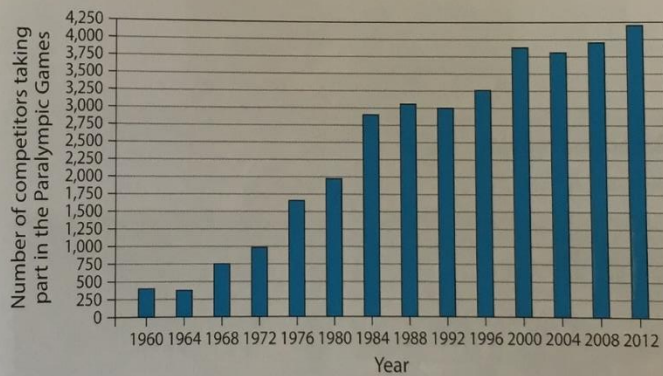
- a) Interpret Figure 5.10: What does the graph tell you about the number of countries sending competitors to the Paralympic Games between 1960 and 2012?



▲ **Figure 5.10** Number of countries that sent competitors to the Paralympic Games, 1960–2012

Source: www.paralympic.org

- b) Interpret Figure 5.11: What does the graph tell you about the number of competitors taking part in the Paralympic Games between 1960 and 2012?
- c) Analyse the data: Make a prediction based on your analysis of the trends illustrated by the graphs. What would you expect 2016's data to show?

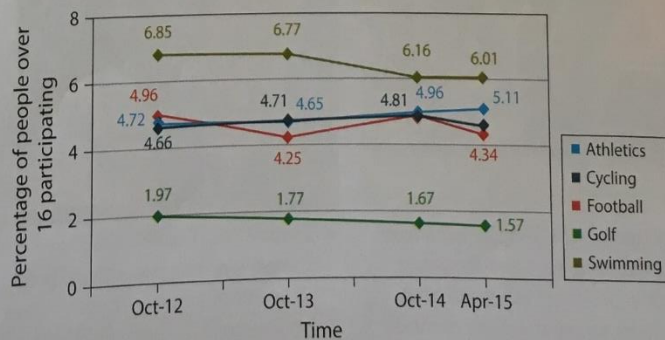


▲ **Figure 5.11** Number of competitors who have taken part in the Paralympic Games, 1960–2012

Source: www.paralympic.org

12 Study Figure 5.12:

- a) Interpret the data: Which sport is the most popular?
- b) Interpret the data: Which sport had the greatest increase in participation between 2012 and 2015?
- c) Interpret the data: Which sport had the greatest decrease in participation between 2012 and 2015?



▲ **Figure 5.12** Popular sports played by people aged 16 and over

Source: www.sportengland.org

5.2 The commercialization of physical activity and sport

Activity

DATA



- 16 This table shows the fees paid by broadcasting companies in different parts of the world to broadcast the Olympic Games, in millions of US\$.

	North America (USA and Canada)	Central America, South America and the Caribbean	Asia	Middle East and Africa	Europe	Australia and Oceania	Total
1998–2000	1,124	14	208	12	422	65	1,845
2002–2004	1,397	21	233	13	514	54	2,232
2006–2008	1,579	34	274	25	578	80	2,570
2010–2012	2,154	106	575	41	848	126	3,850

Source: www.olympic.org

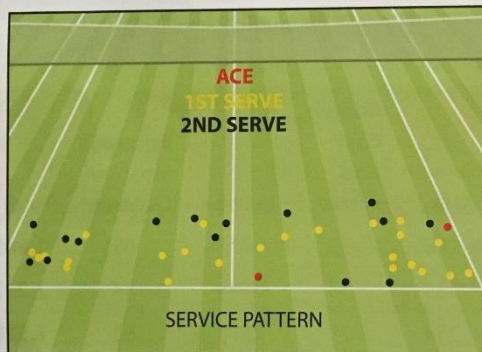
- Interpret the data: Which part of the world has paid most to broadcast the Olympic Games in their territory?
- Analyse the data: What impact do you think this has had on the way the Olympic Games is organised? In your opinion, is the impact positive or negative?

5.3 The impact of technology on physical activity and sport

Activity



17 Look at Figures 5.24 and 5.25 showing the service pattern of two tennis players.



▲ Figure 5.24 Service pattern of 'Player 1'



▲ Figure 5.25 Service pattern of 'Player 2'

- Interpret the data: Which player has the higher percentage of aces?
- Present the data in pie charts. Draw two pie charts to present the data for Player 1 and two pie charts to present the data for Player 2. Each pie chart should show the percentage of aces, first serves and second serves in one half of the court.
- Analyse the data: if you were an opponent receiving the serve, how would your approach change for each player?

Activity



- 18 Find out about a recent technological development in a sport or physical activity of your choice, and how it is being used. What positive and negative impacts has the technology had? Think about the impacts on the performers, the officials, the spectators and the sponsors, as well as the impact on the sport or physical activity itself. And remember to justify why you think each impact is positive or negative.

MARIA SHARAPOVA BANNED FOR TWO YEARS FOR FAILED DRUGS TEST BUT WILL APPEAL

Activity



- 21** Find out about a high-profile sports performer who has recently been caught for taking PEDs.
- a)** What advantage were they trying to achieve?
 - b)** What disadvantages are they now experiencing?
 - c)** Has their sport, or the event they were taking part in, experienced any negative effects as a result of their behaviour?

5.5 Spectator Behaviour

Exam-style questions

0 1 Which **one** of the following factors affecting participation in sport and physical activity do you have control over?

- A Age
- B Peers
- C Gender
- D Disability

[1 mark]

0 2 Which **one** of the following is **not** part of the media?

- A Sponsorship
- B The press
- C Radio
- D The Internet

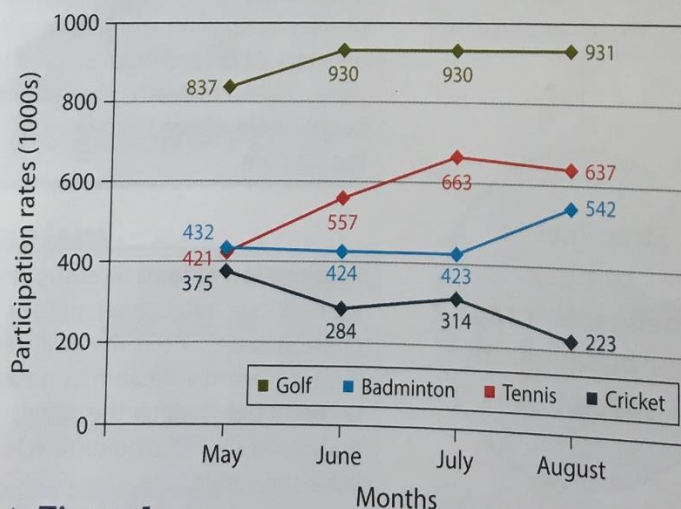
[1 mark]

0 3 Which **one** of the following is **not** an advantage of commercialisation in sport?

- A Increased interest in sport
- B Over exposure of sport
- C More money available for equipment/resources
- D More role models

[1 mark]

0 4 **Figure 1** shows participation rates in four sports between May 2012 and August 2012.



▲ **Figure 1**

Using **Figure 1**, identify the sport with the greatest increase in participation between May and June.

[1 mark]

0 5 Explain two strategies introduced to combat hooliganism and poor spectator behaviour. [4 marks]

0 6 Describe one positive impact of sponsorship and the media on a sports performer. Use an example in your answer. [2 marks]

0 7 Explain the role a person's family can have on their engagement in physical activity and sport. [4 marks]

0 8 Discuss why some sports performers take performance enhancing drugs. [6 marks]

0 9 Evaluate the importance of commercialisation in improving sport for the spectator. [9 marks]

Chapter 6: Health, fitness & well-being

6.1 Physical, emotional and social health and well-being, and fitness

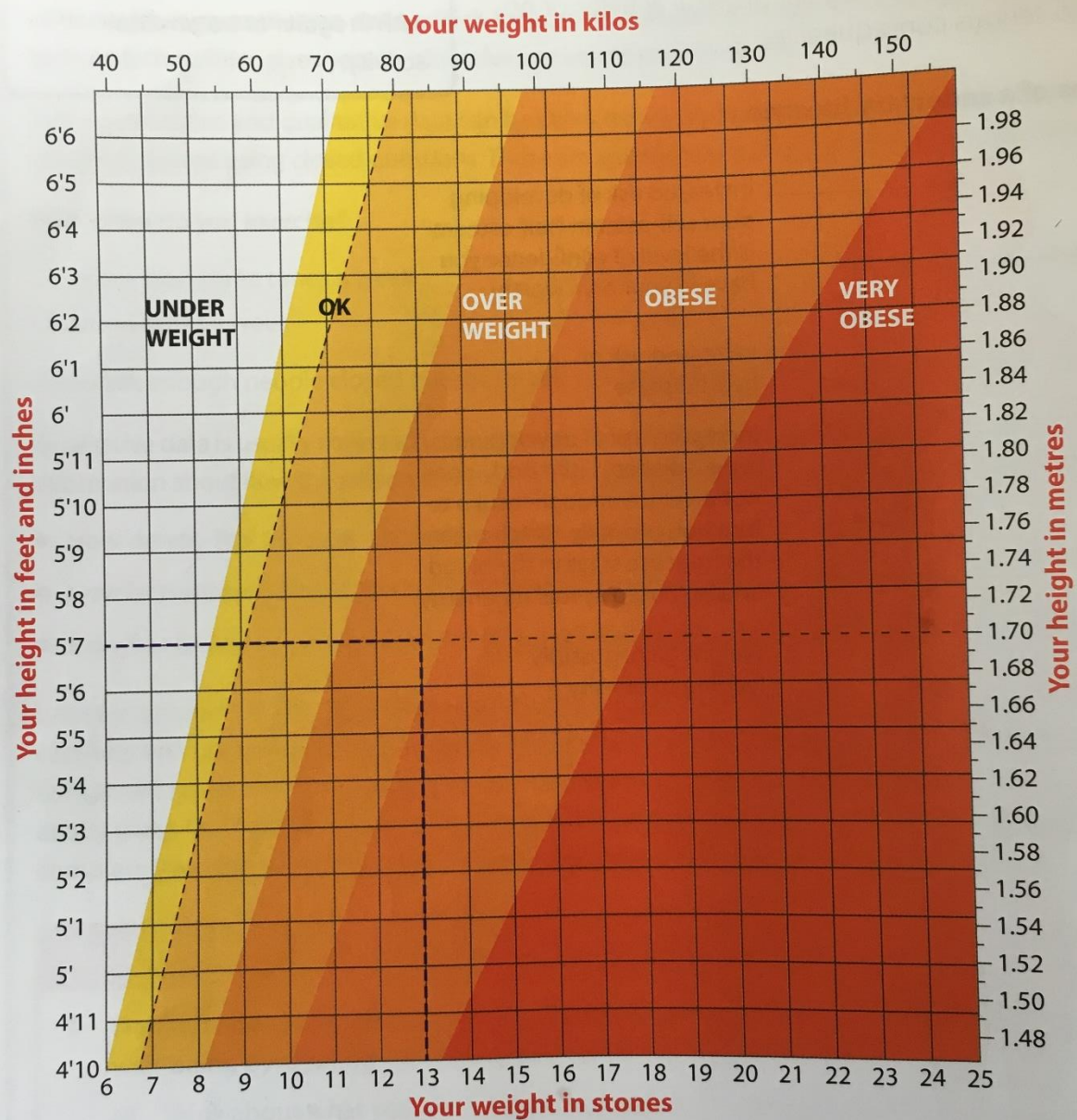
Activity

DATA



- 1 Find out how participation in physical activity and sport improves physical, emotional and social health and well-being by creating a questionnaire to collect qualitative data.
 - a) Think about what you want to find out and write your questionnaire. It should contain no more than ten questions. Begin with a couple of closed questions to establish the age of the person completing the questionnaire and how often they exercise, and then move on to open questions.
 - b) Ask at least six people of more or less the same age to complete your questionnaire.
 - c) Interpret the data collected. What trends can you spot?
 - d) Analyse the data collected. How do the trends you spotted influence your thinking about the way in which participation in physical activity and sport improves physical, emotional and social health and well-being?

6.2 The consequences of a sedentary lifestyle



▲ **Figure 6.6** This height-weight chart can be used as a guide to determine whether a healthy adult is overweight

6.3 Somatotypes

Are the following people, ectomorph, mesomorph or endomorph?



6.4 Energy use

Activity



- 4 a) Search for 'Harris Benedict equation' in a search engine and use an online calculator to work out how many calories you need to eat each day to maintain a healthy weight. Remember to be honest about how active your lifestyle really is!
- b) Keep a food diary of everything you eat and drink in a week, recording how many calories you consume.
- c) Compare the number of calories you should be eating each day with the number of calories you actually eat each day. Do you need to make a change to your diet in order to maintain a healthy weight?

6.5 A balanced diet

A balanced diet

A balanced diet must contain all the different food groups in the right proportion

Food group	Use in body	Foods they are found in
Protein 		
Carbohydrates (sugar and starch) 		
Fats and oils 		
Vitamins and minerals 		

Exam-style questions

0 1 Which **one** the following is **not** likely to occur as a consequence of a sedentary lifestyle?

- A Hypertension
- B Lethargy
- C Weight loss
- D Type 2 diabetes

[1 mark]

0 2 Which **one** of the following is a description of a mesomorph?

- A Muscular, with wide shoulders and narrow hips
- B Tall and muscular, with wide shoulders and narrow hips
- C Pear-shaped, with a tendency towards fatness
- D Tall and thin, with narrow shoulders and narrow hips

[1 mark]

0 3 Which **one** of the following describes how participation in physical activity can increase mental health and well-being?

- A It provides opportunities to socialise
- B It improves heart function
- C It helps you avoid obesity
- D It releases serotonin

[1 mark]

0 4 Participating in physical activity, exercise and sport can increase health and well-being.

State **three** benefits to physical health and well-being that might be gained.

[3 marks]

0 5 . **1** Energy is measured in calories (Kcal) and it is obtained from the food we eat.

How many calories does the average male require in one day?

[1 mark]

0 5 . **2** Describe **two** reasons why the daily requirement of calories varies from person to person.

Use examples in your answer.

[4 marks]

0 6 Explain the role of carbohydrates in a balanced diet.

[3 marks]

0 7 Discuss why water balance is critical for a sports performer.

[6 marks]

Lesson Topic _____

Lesson Topic _____

APPLY WHAT YOU HAVE LEARNED SO FAR TO THESE IMAGES - ATTEMPT THIS IN THE BACK
OF YOUR BOOK



Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

IF YOU WERE TO CREATE A SIMPLE “TOP REVISION TIPS”
GUIDE FOR THIS TOPIC AREA:



- WHAT ARE YOUR TOP 3 TIPS?
- ARE THERE CLEAR PRACTICAL EXAMPLES?
- WHERE MIGHT LEARNERS FIND DIFFICULTY? ARE THERE ANY AREAS THAT ARE POTENTIALLY CONFUSING?



Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

LAST PE LESSON...



THINK BACK TO YOUR LAST CORE PE LESSON. WHAT DID YOU DO? HOW CAN YOU RELATE TODAY'S LEARNING TO THOSE ACTIVITIES?

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

WRITE DOWN 3 EXAM QUESTIONS BASED ON TODAY'S
LEARNING:

- 1 MULTIPLE-CHOICE
- 1 TRUE OR FALSE
- 1 LONGER ANSWER (YOU MIGHT ASK FOR A PRACTICAL EXAMPLE)



Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

GET IT WRONG



CAN YOU WRITE A DELIBERATELY INCORRECT PARAGRAPH,
CONTAINING SOME HARD-TO-SPOT ERRORS? YOU MUST
BASE THIS ON THE TOPICS YOU ARE LOOKING AT TODAY.

DON'T TELL ANYONE YOU'VE DONE THIS, THEN SHOW A CLASSMATE OR YOUR TEACHER - CAN THEY SPOT WHAT YOU'VE
DONE WRONG?



Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

Lesson Topic _____

HARNESS YOUR INNER “MINI-TEACHER”:



TAKE YOUR BOOK WITH YOU AND LOOK FOR MEMBERS OF YOUR GROUP WHO MIGHT BE STRUGGLING OR FINDING THE WORK DIFFICULT.

DON'T SIMPLY “TELL THEM THE ANSWERS”; ASK QUESTIONS, CHECK THEIR UNDERSTANDING

WRITE DOWN 3 QUESTIONS YOU COULD ASK THEM BASED ON THE LESSON TOPIC

Lesson Topic _____

Lesson Topic _____