Paper 2

Health & Performance

Classification of Skills

2.2.1

Classification of Skills

A continuum is a line that goes between two extremes. Continua means more than one continuum.

- **Environmental** Influence: Closed ⟷ Open
- **Difficulty**: Basic ⟷ Complex
- **Organisation** Level: Low ⟷ High
- Very few skills are completely closed or open and are therefore placed on a continuum

Basic and Complex Skills Difficulty Continuum

Key Terms:
Basic Skill
A simple skill requiring little concentration to execute
Complex Skill
A skill requiring a lot of attention and concentration

Basic Skills:

- Simple skills, requiring little thought and decision making. They have few sub routines.
  - Running, Cycling, Swimming, Chest Pass

Complex Skills:

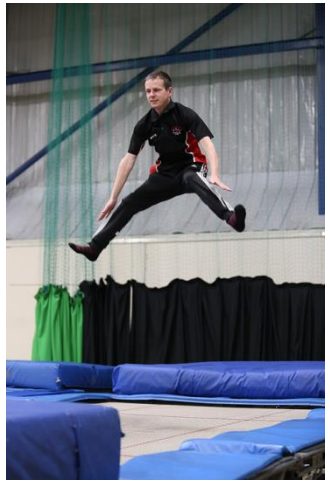
- Complex skills are difficult, require thought and concentration and a lot of decision making. They have lots of sub routines.
  - A twisting somersault in gymnastics requires high levels of concentration and many sub-routines.
  - A smash in tennis, dribbling past a defender in basketball, passing the baton in a relay race.

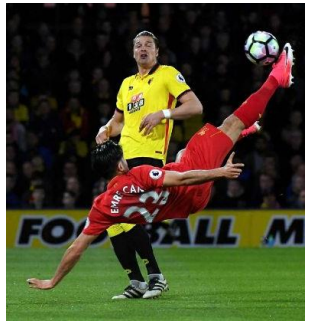
The Difficulty Continuum

Task: In your workbook place the following skills on the continuum.







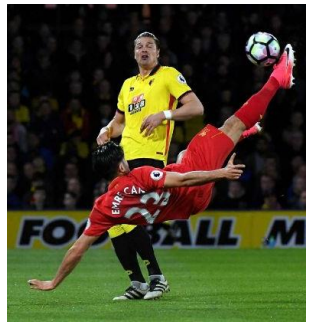



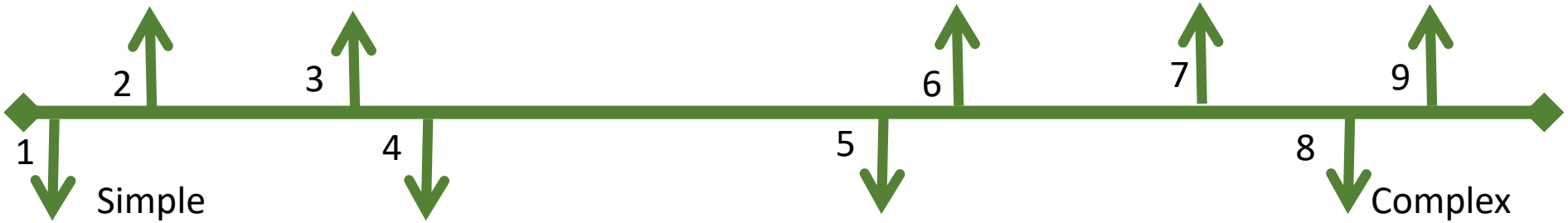

Simple

Complex

- Handstand
- Lay Up
- Back Handspring Vault
- Spike
- Straddle Jump
- Drop Kick
- Underarm Serve
- Overhead Kick
- Chest Pass

The Difficulty Continuum





- Handstand
- Lay Up
- Back Handspring Vault
- Spike
- Straddle Jump
- Drop Kick
- Underarm Serve
- Overhead Kick
- Chest Pass

There is no 100% right answer in terms of where the skills are placed, you just need to be able to decide if they are simple or complex.

Open and Closed Skills
Environmental Influence Continuum

Key Terms:
Open Skill
A skill performed in an unpredictable environment, where the performer must react to and adjust to the changing nature of the situation
Closed Skill
A skill performed in a predicated environment

Open Skills:

- Seen in team sports where the situation is always changing
- They tend to be externally paced
  - E.g. A rugby tackle is a very open skill. The timing and style of tackle is heavily influenced by many factors including *the ball carrier, the tackler's team mates and the position on the pitch.*

Closed Skills:

- Take place in a stable, predictable environment and the performer knows exactly what to do and when.
- Movements follow set patterns and have a clear beginning and end.
- These skills tend to be self paced
  - E.g. Javelin is a very closed skill. The exact timing of the throw is down to the athlete, who is throwing the same weight javelin every time in a very similar environment.

The Environmental Continuum

Task: In your workbook place the following skills on the continuum.









- Football Pass
- Golf Swing
- Rugby Pass
- Shot Put Throw
- Tennis Serve
- Hockey Shot
- Darts Throw
- Netball Pass
- Lay Up

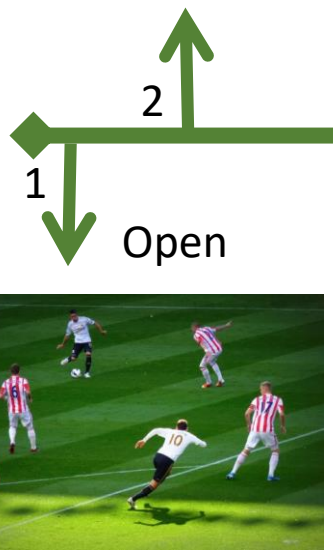
Open

Closed

The Environmental Continuum








1 Open
2
3
4
5
6
7
8 Closed
9

- Football Pass
- Golf Swing
- Rugby Pass
- Shot Put Throw
- Tennis Serve
- Hockey Shot
- Darts Throw
- Netball Pass
- Lay Up

There is no 100% right answer in terms of where the skills are placed, you just need to be able to decide if they are simple or complex.

Low and High Organisation Skills Organisation Continuum

Key Terms:

Low Organisation Skill

A basic skill that can be broken down easily into different phases so each part can be practised separately.

High Organisation Skill

A skill that cannot be broken down easily and practised separately because the phases of the skill are closely linked.

Low Organisation Skills:

- Can be split into sub-routines easily and each sub-routine can be practiced separately.
  - Swimming front crawl (Arm pull, breathing stroke, leg kick and tumble turn)
  - Set Shot in basketball

High Organisation Skills:

- These skills are seen as whole actions and should be practised in their entirety.
- They have a lot of complicated phases or parts that are closely linked together.
- To perform the skill you need to pay attention to detail, have good coordination, timing and quick thinking, especially in a competitive situation.
  - A somersault in trampolining
  - A golf swing

The Organisation Continuum

Golf Swing

Tennis Serve

Task: In your workbook place the following skills on the continuum.

Low

High

The Organisation Continuum

Golf Swing

Tennis Serve

Task: In your workbook place the following skills on the continuum.

Low

High

Pop Quiz

1. Using the environmental (open and closed) continuum, what classification of skill are the following:
    - Rugby tackle
    - Dart throw
    - Shot put
    - Netball pass in a game
2. What is the role of tendons?
3. What are the 2 reasons a sports performer would take diuretics?
4. Define health
5. Describe interval training.

Types of Practice

2.1.2

Practical

- **Fixed Practice:** Underarm tennis ball throw
- **Variable Practice:** Tennis ball throw (changing direction etc..)
- **Massed Practice:** Throwing the ball against a wall (no rest)
- **Distributed Practice:** Lay up practice

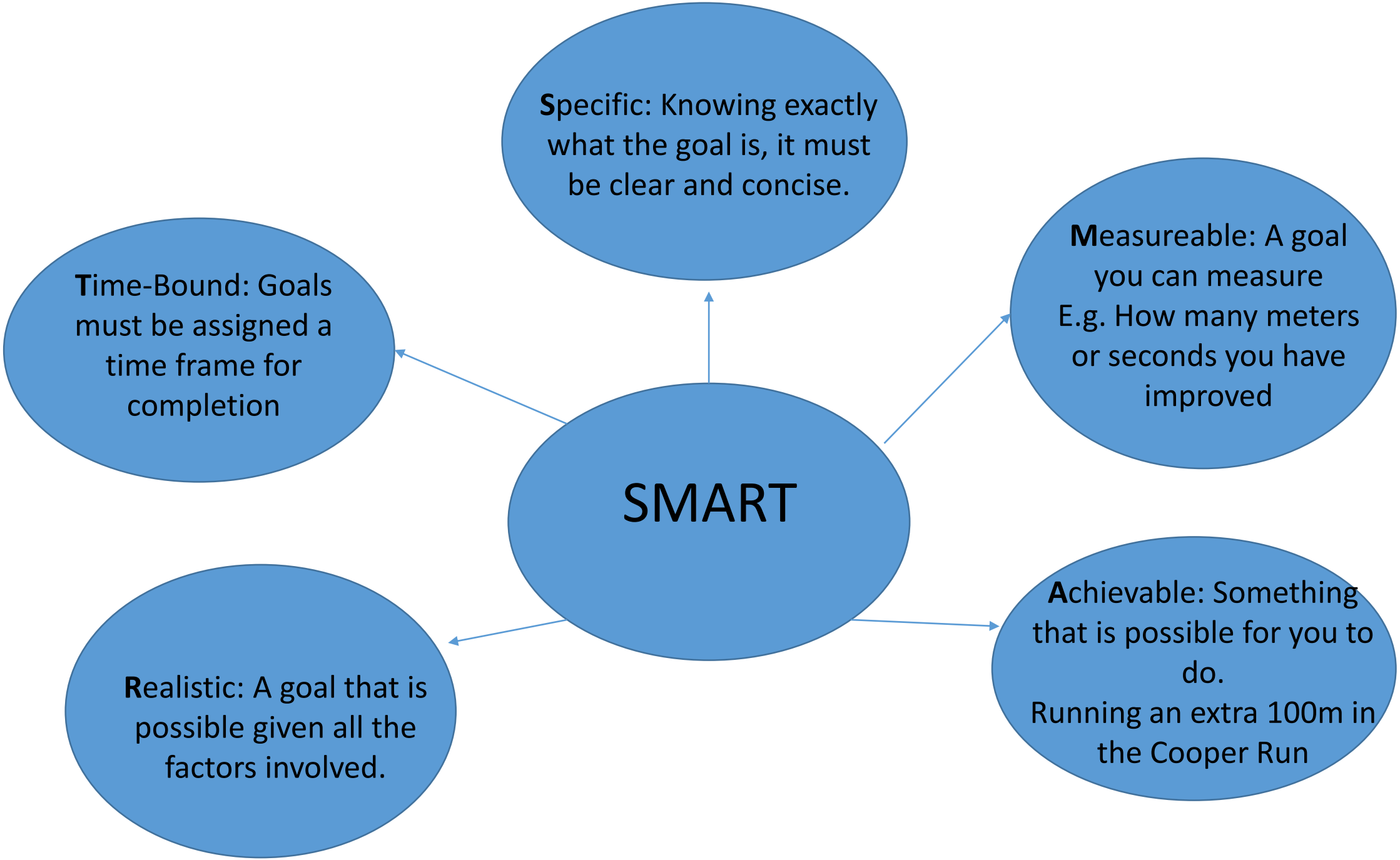
Type of Practice	Description	Advantages	Disadvantages	Practice is most useful for:
Fixed	Repeatedly practising a whole skill within a training session. E.g. A golfer uses fixed practice so their golf swing becomes well learned.	Good for novices Good for improving consistency	Can become boring or tedious Performers can loose interest and the skill practice can suffer	Closed skills
Variable	A training session that includes frequent changes of task so that the skill can be repeated in different situations. E.g. Skills that are influenced by opposition (bringing in a defender)	Mimics game play	If a novice moves on too quickly to variable practice their skill level can be affected	Open skills
Massed	A training sessions where there are little or no breaks. The same skill or part of a skill is repeated over and over again. E.g. A squash player continuously hitting forehand drives until they master the skill.	The correct movement pattern is grooved (getting to feel for the skill) so it is repeated next time	This type of practice can be boring It can also be tiring, leading to errors and potentially accidents	Simple, Low Organisation and Closed skills
Distributed	When there are breaks in the session providing time for feedback and rest. E.g. 5 attempts at kicking a rugby ball at the posts, then rest receive feedback from coach while another player has their turn.	The performer doesn't get too tired It prevents boredom/keeps motivation high	The performer may not gain the skill in the time allowed, therefore taking longer to learn the skill	Complex, High Organisation and Open skills

Goal Setting
SMART Goals

Goal Setting

Effective goal setting can:

- Helping you to **focus** on what is important
- Increasing your **motivation** to make progress
- Improve overall **performance**
- Aid with **planning** of training sessions (due to increased focus)
- Enabling you to **monitor** how well you are doing


Specific: Knowing exactly what the goal is, it must be clear and concise.
Measureable: A goal you can measure
E.g. How many meters or seconds you have improved
Time-Bound: Goals must be assigned a time frame for completion
SMART
Realistic: A goal that is possible given all the factors involved.
Achievable: Something that is possible for you to do.
Running an extra 100m in the Cooper Run

Examples of SMART Targets

- 100m sprinter: Take 0.2 seconds off PB by the last race of the season
- Striker in football: Score 12 goals this season compared to 9 last season
- Rugby goal kicker: To improve my season's kicking percentage by 5% compared to last season
- Trampolinist: To raise my tariff by 0.5 by the end of next month
- Marathon runner: To take 2 minutes off my PB in the marathon at the end of the month

Reviewing Targets

Why is it important to review targets?

Pop Quiz

1. Using the difficulty (simple and complex) continuum, what classification of skill are the following:
    - Lay up
    - Overhead kick
    - Straddle jump
    - Chest pass
2. A somersault is performed around which plane and axis?
3. State the reason why a sports performer would take anabolic steroids?
4. What is Tidal Volume?
5. State the 6 ways to reduce the risk of injury in physical activity.

Types of Guidance

Types of Guidance

- Visual Guidance
- Verbal Guidance
- Manual Guidance
- Mechanical Guidance

Visual Guidance

Visual guidance is when guidance is presented in a form that the performer can look at.

It can be in the form of:

- A demonstration e.g. basketball set shot
- Watching a video e.g. 100m start
- Looking at a poster, a chart or court markings.

Useful for all levels of performer

Especially good for beginners/young performers

Vision is most peoples dominant sense

Performers can copy what they have seen

The demonstration must be of good quality

Some skills may be too complex to demonstrate

Not effective if performers are not paying attention

https://www.youtube.com/watch?v=T9chSovkDkA&safe=active

Verbal Guidance

Verbal guidance is when a coach or teacher describes how to perform a skill or tells a performer something.

Especially useful for high level performers

Useful for sharing basic information

Good way of highlighting key teaching points

Can be boring/tedious

Can result in 'information overload'

Complex things can be difficult to explain

Manual Guidance

Manual guidance involves a coach physically moving a performer into the correct position or supporting them as they perform a skill

Good for complete beginners

Allows some development of correct feel

A movement can feel different when someone else is moving your body for you

Performer may not think that they're actually performing it themselves

Mechanical Guidance

Mechanical guidance takes place when equipment is used to assist in the coaching process.

This could take the form of floats in swimming or harnesses in diving, gymnastics and trampolining.

Good for potentially dangerous skills

Can allow performer to gain a feel for a movement without fear

Good for building confidence

Performer can come to rely on the aid

Equipment may be expensive

Types of Feedback

Pop Quiz

1. Using the organisational level (high and low) continuum, what classification of skill are the following:
    - Tennis serve
    - Golf swing
2. What does SMART stand for?
3. Describe distributed practice.
4. What are the principles of training?
5. Give the definition of cardiovascular fitness.

Feedback is either Intrinsic or Extrinsic

- Intrinsic

- Extrinsic

Intrinsic Feedback

- Feedback which comes from the performers themselves.
- It relates to how a movement feels, which is known as kinaesthetic feel.
- Novice performers will not be able to rely on this feedback because they will not have a developed knowledge and understanding of how skills should feel.
- In contrast, experienced performers have developed knowledge and understanding of kinaesthetic feel and will know if a movement is correct or incorrect. They will be much more capable of self-assessing and self-correcting because of their extra experience.

Extrinsic Feedback

- Feedback which comes from a coach
- The feedback will normally come in the form of visual or verbal guidance as a coach relays what the performer did right or wrong and shows or tells them how they looked.
- Less-experienced performers need this kind of feedback to let them know how they have done and motivate and encourage them to keep trying.
- More-experienced performers are likely to use extrinsic feedback to gain a full picture of how hey did before deciding on what needs to be improved.

Feedback is either Concurrent or Terminal

Concurrent

Terminal

Concurrent Feedback

- Concurrent feedback takes place during the performance and can be intrinsic or extrinsic.

- If an activity last long enough, a performer can make adjustments as they go.

- They could feel that they’re doing something wrong and alter it or a coach could verbally instruct them to make a change.

Terminal Feedback

- Terminal feedback is received after the performance.
- It could come straight away or some time later, but it always comes from an extrinsic feedback source.
- A coach should talk the performer through what they saw or the performer could watch a replay.
- Many sports teams run full video analysis sessions with their players, which are an example of terminal feedback.

What types of feedback will be possible?

Pop Quiz

1. Describe visual guidance
2. When would concurrent feedback take place?
3. Define reaction time.
4. Name the 5 fitness classes
5. Describe the structure of an artery.

Mental Preparation

Mental Preparation

Effective mental preparation ahead of sports performance has shown to be highly effective. Sport physiologists are now employed by most professional sports teams to ensure that performers are in the best place psychologically to succeed.

Psychological Warm-up

- A **performer** gets **mentally ready** to give their very **best**.

- Good mental preparation during a warm up ensures that all of a performer's attention is totally focused on the performance and nothing is able to distract them from the task at hand.

Mental Rehearsal

- BBC Clip
- https://www.youtube.com/watch?v=-AibWrCkYVk&safe=active

- Practising the skill in your **head** before actually doing it.

- A technique that many high level performers use before they perform a skill that have specific preparation time.

- During mental rehearsal you practice the skill in your head; you act out the movements in your head to remind yourself how it feels to perform them successfully.

Golfer Jason Day talking about mental rehearsal:

https://www.youtube.com/watch?v=wn7Sswh0X9o&safe=active

Sadie Bjornsen, cross country skier:

https://www.youtube.com/watch?v=pZf24MEemKI&safe=active

Mental Rehearsal

Practising the skill in your **head** before actually doing it.

1. During a WARM UP you prepare physically and mentally for the coming activity.

2. During the EVENT the performer goes through a skill or sequence of events. This helps clarify the skill they are about to perform, so they are confident they are ready to perform.

Mental Rehearsal can:

1. Be used to develop an existing skill

2. Help to focus the mind on the task

3. Reduce anxiety (due to focus)

4. Build confidence (due to mentally seeing successful performances)

Task in work books

- **Give some examples of sports performers who may use mental rehearsal:**

Task in work books

- **Give some examples of sports performers who may use mental rehearsal:**

  - **A sprinter at the start of the 100m, preparing and getting into their starting blocks and looking up at the track**
  - **A high jumper or pole vaulter practising their first step, then visualising their run up and jump, clearing the bar**
  - **A discus thrower before their throw, seeing the discus flying through the air and landing for their best performance**

All of these performers will be experiencing high levels of pressure at these times and therefore good mental preparation can help them to focus and produce their best performance when it counts.

Exam Question

Qu. Explain 2 ways mental rehearsal will improve a diver's performance. (4)

Pop Quiz

1. What are the 4 types of guidance?
2. When would terminal feedback take place?
3. Name the main artery carrying oxygenated bloody away from the heart to the rest of the body.
4. What classification of joint is the shoulder?
5. Describe the role of the quadriceps

Health & Well-Being

Health & Performance

Lesson 1: WALT

- Effects of Exercise on Health & Well-Being
- 5 Lifestyle Choices

Effects of Exercise on Health & Well-Being – Physical, Social, Mental

Fill in Booklet

Health: A state of complete emotional, physical and social well-being and not merely the absence of disease and infirmity

Well-Being: "The state of being comfortable, healthy or happy"

Physical

Benefit of Exercise on Physical Health	How is it Achieved
Improvement in all areas of HRE	Regular training
Increased Bone Density – preventing Osteoporosis	Weight Bearing Exercise (Walking/Running)
Reduced chance of Obesity/Maintain Optimum Weight	Burning excess calories through exercise
Reduced chance of Coronary Heart Disease	Reducing Cholesterol & Blood Pressure
Reduced chance of Strokes	Reducing Cholesterol & Blood Pressure

Negative Effects: Overexertion (leading to heart attacks & strokes) & overuse injuries

Fill in Booklet

Emotional

Benefit of Exercise on Emotional Health	How is it Achieved
Increased Self-Esteem & Confidence	- Overcoming an emotional/physical challenge - Feel part of something as team member - Performing better by practising more - Think you look good by losing weight if overweight
Aesthetic Appreciation -See beauty in performance	- Watching skilful performance
Relieve Stress & Stress/Mental Illness	- Taking mind off problems - Having fun - Serotonin (Feel good Hormone)
Competition	- Feeling good if winning/meeting a challenge
Reduce Boredom	- Having something to do

Negative Effects: Addictive. Injury & Inactivity leading to depression. Competition pressure

Fill in Booklet

Social

Benefit of Exercise on Social Health	How is it Achieved
Developing Friendships & Social Mixing	Meet new people & meet old friends By Joining a team or club
Improved Co-operation	Work as a team towards a common purpose Ability to interact with others Adapt to social situations
Increased social activities and therefore will not engage in antisocial behaviour)	Activities to occupy your time

Negative Effects: Long training hours means a lack of social time

Complete Worksheet 1.1.1-1.1.4

5 Lifestyle Choices	
1. Diet	• Calorie Intake: 2500 calories for men and 2000 calories for women (Anorexia and Obesity) • Diseases caused by lack of nutrients: **Rickets** (lack of Vitamin D or calcium) can result in weak bones, **Scurvy** (due to lack of Vitamin C), which can result in tiredness, **Osteoporosis** (lack of calcium), which can lead to weak bones.
2. Activity Levels	• 5-18 year olds should do 1 hour of exercise every day • Reduced chance of Coronary Heart Disease & Osteoporosis
3. Work/Rest/Sleep Balance	• Lack of correct balance can lead to tiredness, lack of concentration and irritability
4. Alcohol	• Health: Heart failure, increased blood pressure, increased wright, liver disease/cancer • Performance: Slower reaction time, decreased mobility due to excess weight, decreased co-ordination & concentration
5. Smoking	• Health: Strokes, bronchitis, heart disease/angina, blood clots, emphysema, lung cancer • Performance: Breathlessness, reduces oxygen-carrying capacity

Apply Core Knowledge

Q1) Taking part in physical activity on a regular basis can reduce the risk of heart disease and high blood pressure. Explain one other health risk that can be reduced through long-term physical activity (3 marks)

Q2) Use an example to explain how poor physical health can affect performance in physical activity (3 marks)

Q4) Using an example explain how self-esteem can be increased through physical activity (3 marks)

Q6) Identify two possible negative effects of smoking on the cardiovascular system (2 marks)

Q7) Identify two possible negative effects of smoking on the respiratory system (2 marks)

Q8) Eddie is 16 and enjoys playing in the school football team. Explain why the government recommends that teenagers like Eddie have 8 to 10 hours of sleep every night (3 marks)

1. Complete Quiz
2. Complete Questions in Purple Workbook
3. Complete Past Paper Questions

Pop Quiz

Energy Use, Diet, Nutrition & Hydration

Health & Performance

Lesson 1: WALT

7 Categories of a Balanced Diet

Fill in Booklet

7 Categories of a Balanced Diet

FAT MEN CAN'T PLAY FOOTBALL VERY WELL

Fat

Minerals

Carbohydrates

Protein

Fibre

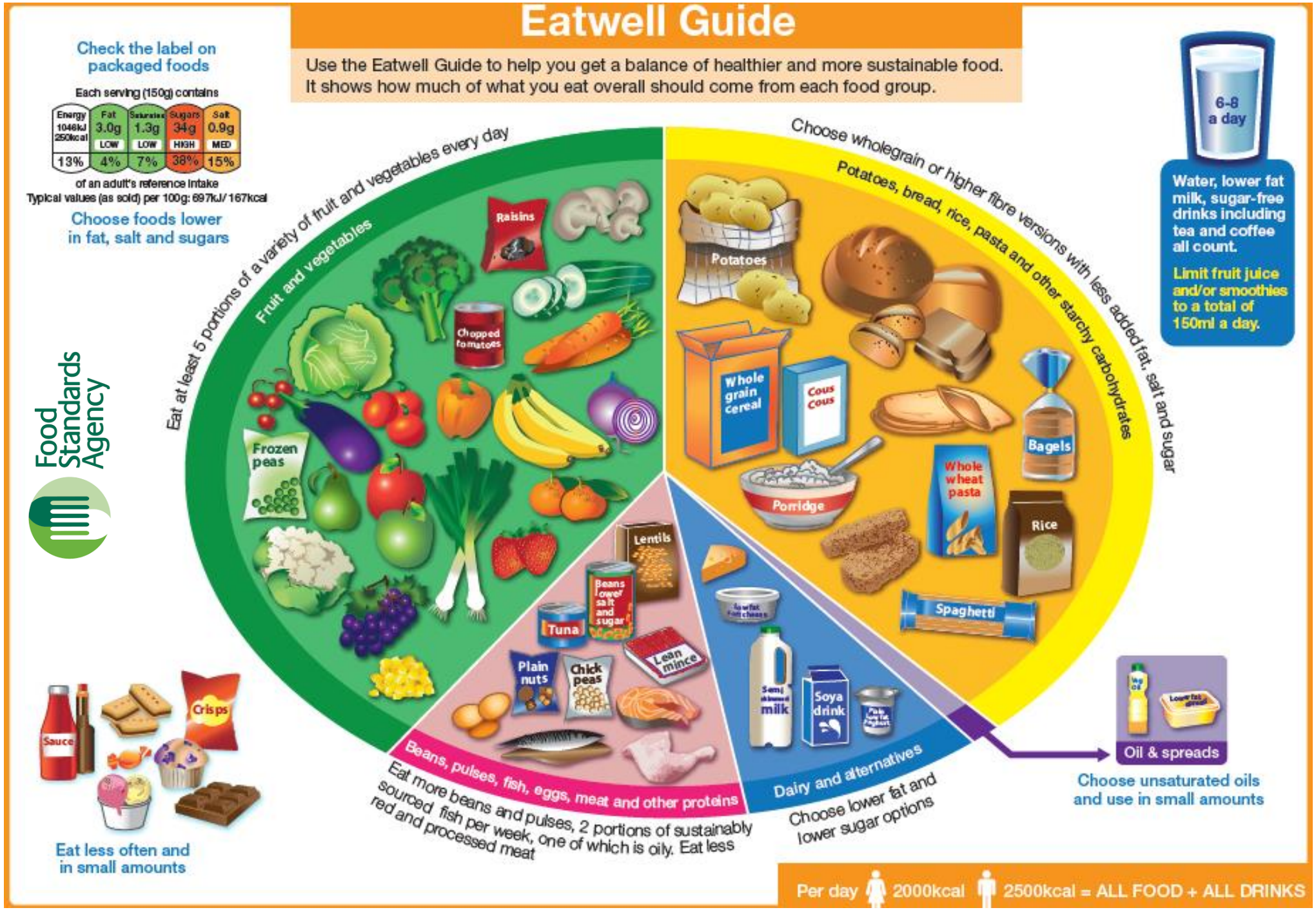
Vitamins

Water

A Balanced Diet

Eating the right foods in the right amount

http://www.nhs.uk/Livewell/Goodfood/Pages/the-eatwell-guide.aspx



7 Categories of a Balanced Diet

3 Macro-Nutrients (Energy, Growth & Repair)			
Carbohydrates **Simple** **Complex**	1st source of energy	Bread, pasta, potatoes, rice	Needed in large amounts
Fat **Saturated** **Unsaturated**	2nd source of energy but should be eaten in moderation due to potential weight gain Bulking	Butter, oil, fatty meats, fried food	
Protein	Muscle growth (hypertrophy) & repair 3rd source of energy	Cheese, milk, eggs, lean meat, fish	
2 Micro-Nutrients (Maintain Good Health)			
Vitamins	Helps body function properly (e.g. vitamin C) Prevents deficiency diseases (e.g. Vitamin D)	C – Fight colds – fruit and vegetables D – Absorbs Calcium to prevent brittle bones – milk, fish, eggs	Needed in small amounts
Minerals		Calcium – Osteoporosis – dairy Iron – Anaemia – red meat, green veg	
Fibre	Aids digestion Bulking agent Reduces cholesterol	Fruit & vegetables, cereals, nuts	Needed in small amounts
Water (Hydrate)	Prevents dehydration Regulates body temperature Help transport nutrients & waste products Aids mental concentration Helps tissues, cells & organs to function properly Keeps joints lubricated	Before (500ml 4 hours & 250ml 15 mins before) During (regular water breaks) After hydrate as soon as possible 2.5 litres for men and 2 litres for women daily intake	

Fill in Booklet

Carbohydrates - 1st SOURCE OF ENERGY

Carbohydrates stored in liver and muscles as glycogen. When energy is required glycogen is converted to glucose through respiration

2 types of carbohydrates:

Simple (SUGARS)

Quick absorption giving fast energy release

Complex (STARCHES)

Slower absorption giving slower & longer lasting energy release, therefore preferable for athletes

The daily intake of complex carbohydrates to provide energy should be about 50% of the total diet *and eaten in greater quantities than the other macronutrients. Excess stored as body fat.*

Fill in Booklet

Fats – 2nd ENERGY SOURCE & BULKING

- ✓ Used for energy only when stores of carbohydrates are low. (Endurance events)
- ✓ Excess fat stored as body fat causing weight gain – positive in some events requiring bulk

2 Types of Fats:

SATURATED - solid at room temperature
Increases Cholesterol levels in blood and can lead to Coronary Heart Disease

UNSATURATED - liquid at room temperature
Decreases Cholesterol levels in blood

The daily intake of fats to provide energy should be about 30% of the total diet.

Excess stored as body fat and requires more oxygen than carbohydrates to convert into energy so needs to be eaten in moderation

Fill in Booklet

PROTEINS – MUSCLE GROWTH & REPAIR, 3RD ENERGY SOURCE

Body naturally manufactures 13 *proteins from amino acids*, but, as the body cannot manufacture all 21 required amino acids we need to consume other 8. Protein eaten is broken down into these 8 amino acids and used by the body to *build cells, make blood, aid immune system, repair & replace tissue*

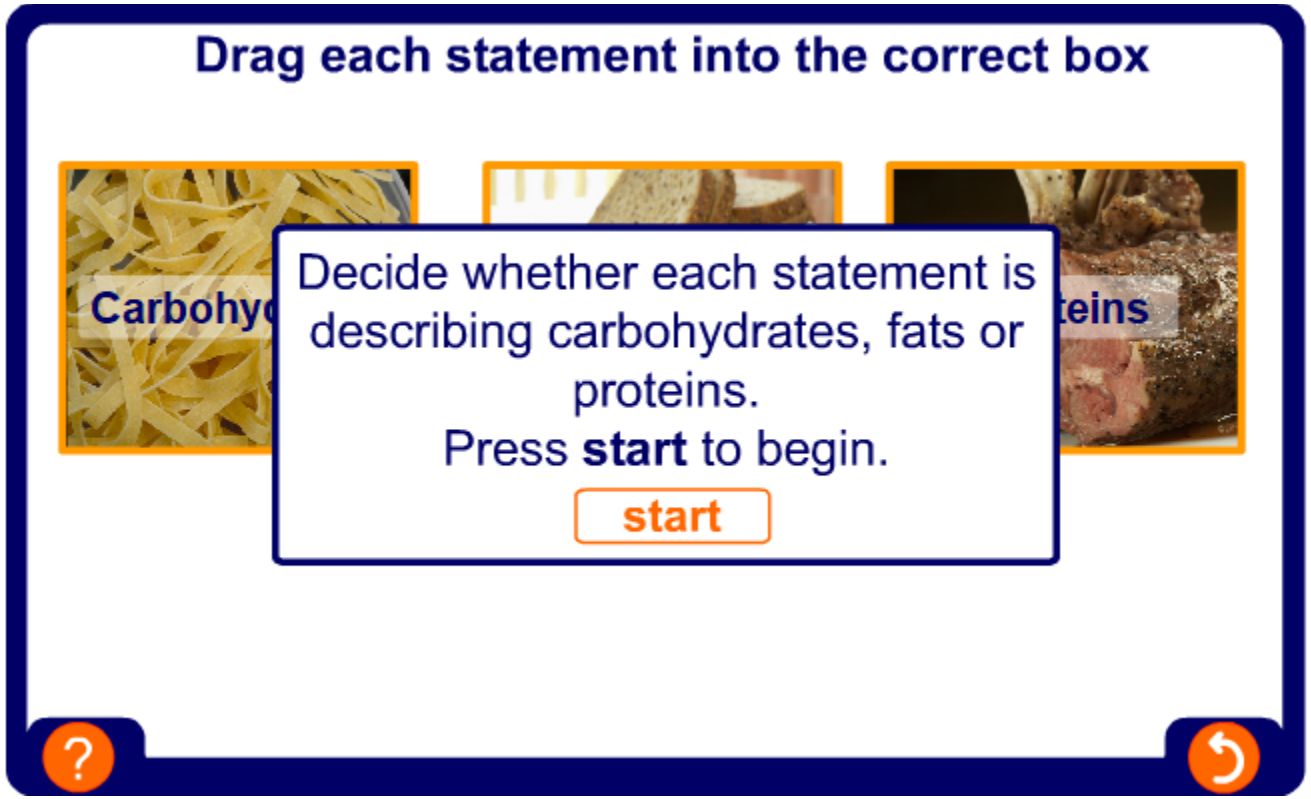
- ✓ Used for muscle & tissue growth (muscular hypertrophy & recovery from injury)
- ✓ Used for energy only when exhausted stores of carbohydrates & fats

2 types of proteins - ANIMAL PROTEIN or PLANT/VEGETABLE PROTEIN

The daily intake of protein to provide energy should be about 20% of the total diet

Discuss how the amount & timing of protein intake will varying depending on sport?

Macronutrients - Carbohydrates, Fats & Proteins



Think of three different sports people that would require different balances of the three macro-nutrients & explain why?

Fibre – Aids Digestion, Bulking Agent, Reduces Cholesterol

Found in the leaves, stems, roots, seeds and fruit of plants

2 types of Fibre:

SOLUABLE

✓ Reduces the absorption of cholesterol into your bloodstream

INSOLUABLE

✓ Bulking agent to remove waste products, prevent dehydration and prevent digestive disorders

✓ Bulking Agent which makes you feel full and help you maintain optimum weight

Fill in Booklet

Fill in Booklet
Complete Worksheet 1.3.1-1.3.3

Water

Makes up half of body weight and prevents dehydration. Water is the best way to hydrate

- ✓ Prevents DEHYDRATION – athletes must HYDRATE
- ✓ Holds oxygen and main component of many cells
- ✓ Transports nutrients, hormones & electrolytes around the body
- ✓ Helps remove waste products through sweating
- ✓ Regulates body temperature through sweating
- ✓ Keeps joints lubricated
- ✓ Aids mental concentration
- ✓ Severe dehydration can led to serious health problems (headaches, bladder, kidney, bowel)

Best way to stay hydrated for sport?

How much water should be taken in daily?

Dehydration: The loss of water and salts essential for normal body function

Hydrate: Take on water

Lesson 2: WALT

Dietary Manipulation

Optimum Weight

Energy Balance

Pop Quiz

1) Define health
2) Define Well-Being
3) Name 3 x physical, social and mental benefits of exercise
4) What are the 7 categories of a balanced diet
5) What are micro and macro nutrients

9 Marker:

Evaluate how lifestyle choices in relation to diet and activity levels can impact on a sports performer.

Dietary Manipulation – 4 Ways

1) Carbo-Loading: *1 to 4 days before an event*

Strategy used by endurance athletes to increase the stores of glycogen in their muscles and liver to produce energy for performance

Reduce amount of exercise
Eat high carbohydrate diet
Reduce the fibre intake

→ Increased glycogen stores in muscles & liver → Maintain optimum performance for longer

2) High Protein Diet: *Immediately after exercise*

Strategy used by power athletes to minimise protein breakdown, stimulate protein synthesis and therefore muscle growth
Strategy used by athletes to maximise muscle repair after high intensity training sessions

3) Isotonic Energy Drinks/Hydration:

Strategy used to rehydrate, replace electrolytes and boost energy

4) Vascular Shunting:

4 Factors Affecting Optimum Weight

The most favourable weight to produce their best performance in their sport

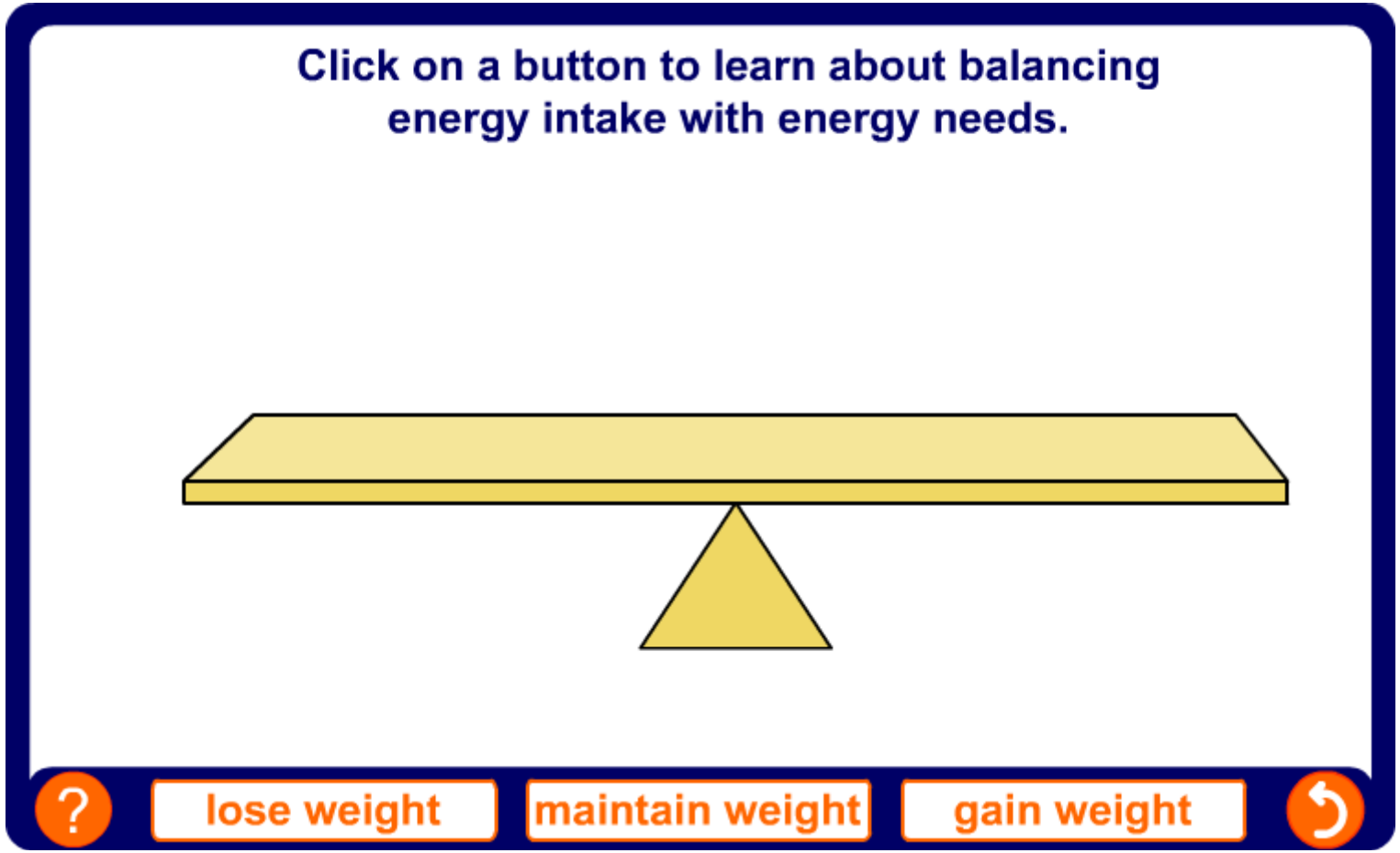
1) HEIGHT
2) MUSCLE GIRTH
3) GENDER
4) BONE STRUCTURE

HEIGHT
MAKES
GIANTS
BIG

Mako Vunipola and Anthony Watson both represented England in rugby. They are roughly the same height but their optimum weight is vastly different, can you explain the variation? (3 marks)

Fill in Booklet

Energy Balance - Calories



Metabolic Rate: “The rate at which metabolic processes take place; the rate at which a body uses up energy”

Apply Core Knowledge

Q1) Think of three different sports people that would require different balances of the three macro-nutrients & explain why?

Q2) Explain why a shot put athlete should think about the timing of their protein intake?

Q3) State one health condition that can develop if you do not have enough of it in your diet and how it could effect performance in physical activity and sport?

Q4) Discuss why different sports have different daily calorie requirements?

Q5) How do the dietary requirements of a rugby player & jockey differ due to the different demands placed on their bodies?

1. Complete Quiz
2. Complete Questions in Purple Workbook
3. Complete Past Paper Questions

The Consequences of a Sedentary Lifestyle

Health & Performance

Sedentary Lifestyle: “A lifestyle where there is little, irregular or no physical activity”

Should aim to be active, exercise or play sport at a moderate intensity for 1 hour a day

Fill in Booklet

Impact of a Sedentary Lifestyle on Weight

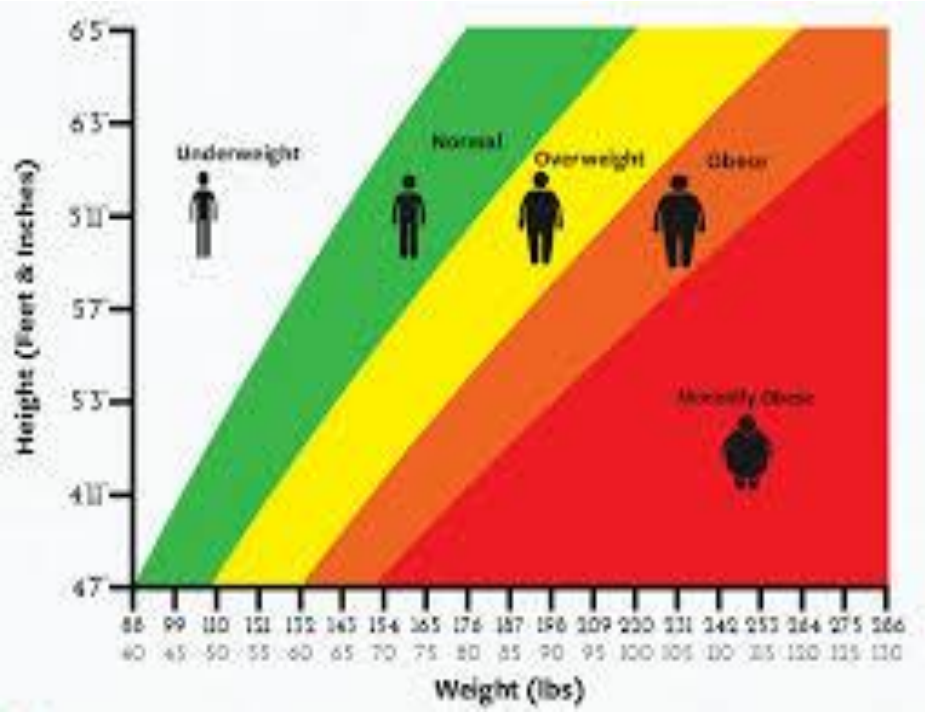
1. **Overweight:** Means that you weigh more than the expected weight for your height and sex. It is possible to be overweight without being overfat.

2. **Overfat**: Means you have more body fat than you should have. If the level of fat in the body is excessive it can lead to health problems such as high blood pressure and high cholesterol. It is possible to be overfat but not actually overweight.

3. **Obese:** People who are very overfat. This is where the body fat has increased to a level that is seriously unhealthy. High levels of excess fat can lead to: mobility issues/lack of flexibility, additional stress on bones and joints, heart disease, types 2 diabetes and depression due to low self-esteem.

Body Mass Index (BMI)

Body mass index (**BMI**) is a measure of body fat based on your weight in relation to your height



https://www.nhs.uk/Tools/Pages/Healthyweightcalculator.aspx

A way of calculating whether or not you are an ideal weight

Why are there differences between the ideal BMI for these sports?

Anthony Joshua

Height: 6ft 6in
Weight: 18 stone 2 lbs
Age 28
BMI: 28 (Overweight)

Paula Radcliffe

Height: 5ft 8in
Weight: 8 stone 7 lbs
Age 44
BMI: 18 (Underweight)

Tyson Fury

Height: 6ft 9in
Weight: 25 Stone
Age 29
BMI: 37.5 (Obese)

https://www.nhs.uk/Tools/Pages/Healthyweightcalculator.aspx

Get Britain Standing .org ™

Sedentary Lifestyle
7 Linked Long Term Health Problems

Fill in Booklet

1) Heart Disease

2) Diabetes Type 1 & 2

3) Osteoporosis

4) Loss of Muscle Tone & Posture Weight Gain – Obesity

5) Negative Impact on Components of Fitness

6) Depression

7) Weight Gain – Obesity

Fill in Booklet

Heart Disease - Result of Blood Pressure & CHD

High Blood Pressure:

- If your blood pressure is often too high this puts extra strain on your heart and blood vessels.
- Eventually high blood pressure can lead to a heart attack or a stroke
- Exercise can help to lower blood pressure

Coronary Heart Disease:

- Leading cause of death in the UK
- Exercise helps to remove fatty deposits which build up in the walls of the coronary arteries narrowing the blood vessels which take blood back to the heart, therefore restricting blood flow to the heart. Exercise also prevents build up of more fatty acids
- People who sit for 8 hours a day or more are more than twice as likely to have CHD than those who sit for less than 4 hours

Fill in Booklet

Diabetes

A condition where the amount of glucose in your blood is too high because your body can't regulate the levels in the blood correctly

- Insulin is a hormone produced by your body to convert carbohydrates into glucose.
- Type 1 Diabetes: The Pancreas doesn't produce any insulin
- Type 2 Diabetes: The body doesn't produce enough insulin to function properly or your body doesn't react correctly to the insulin produced.
- Being overweight or obese is one of the causes of type 2 diabetes and exercise helps you maintain your optimum weight.
- A sedentary lifestyle is linked to a 91% increased risk of type 2 diabetes

Fill in Booklet

Osteoporosis

- Osteoporosis causes your bones to become weak and brittle and more likely to break
- Exercise, specifically weight bearing exercises increase bone density.
- Weight bearing exercise: walking, aerobics and jogging

Fill in Booklet

Loss of Muscle Tone and Posture

- If you have a sedentary lifestyle and don't move very much you will lose muscle mass – muscular atrophy
- You will become weaker and it will become harder to complete daily tasks
- Exercise increases muscle mass.
- Spending lots of time sitting can lead to poor posture
- If the body is regularly held in unnatural positions it can lead to back and joint pain
- Exercise can improve posture (Pilates and Yoga)

Fill in Booklet

Negative Impact on Components of Fitness

- Leading a sedentary lifestyle has a negative effect on all eleven components of fitness due to lack of muscle use and muscular atrophy

- All of the components of fitness will suffer if exercise and physical activity stops

- Cardiovascular Fitness, Muscular Endurance, Muscular Strength, Flexibility and Body Composition will suffer the most

Fill in Booklet

Depression

- Depression is a mental illness that can range from mild depression to clinical depression which can be life threatening

- Exercise releases hormones called endorphins, which make you feel happier and more relaxed. These hormones can help to combat depression

Fill in Booklet

Weight Gain/Obesity

- If you consume more calories than you expend then you will gain weight
- Reduced Metabolic Rate:

  Amount of energy per unit time that a person needs to keep the body functioning at rest
- Sitting for long periods of time will mean that overtime you will gain weight which can lead to being overweight, overfat and obese
- Obesity can have a negative impact on sustained involvement in exercise

http://www.myfitnesspal.com/tools/bmr-calculator

Complete in Booklet

Interpreting Data – BMI & High Blood Pressure

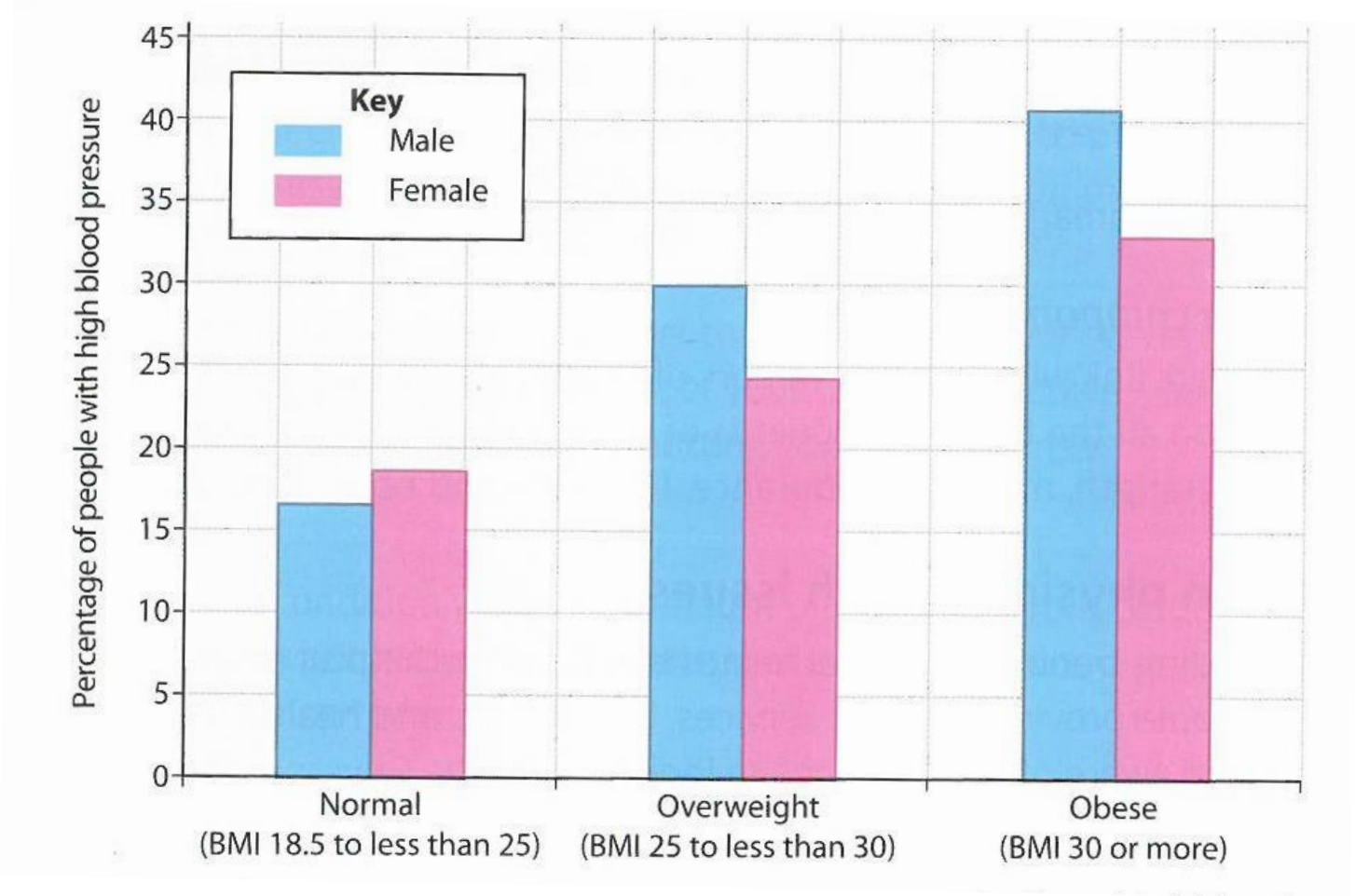


Figure 2.1 Percentage of people in different BMI ranges who have high blood pressure, by gender

Q1) Find the percentage of men and women with high blood pressure for each age group

Q2) Compare the figures across the groups

Q3) Compare the figures for men and women

Complete in Booklet

Interpreting Data – Diabetes

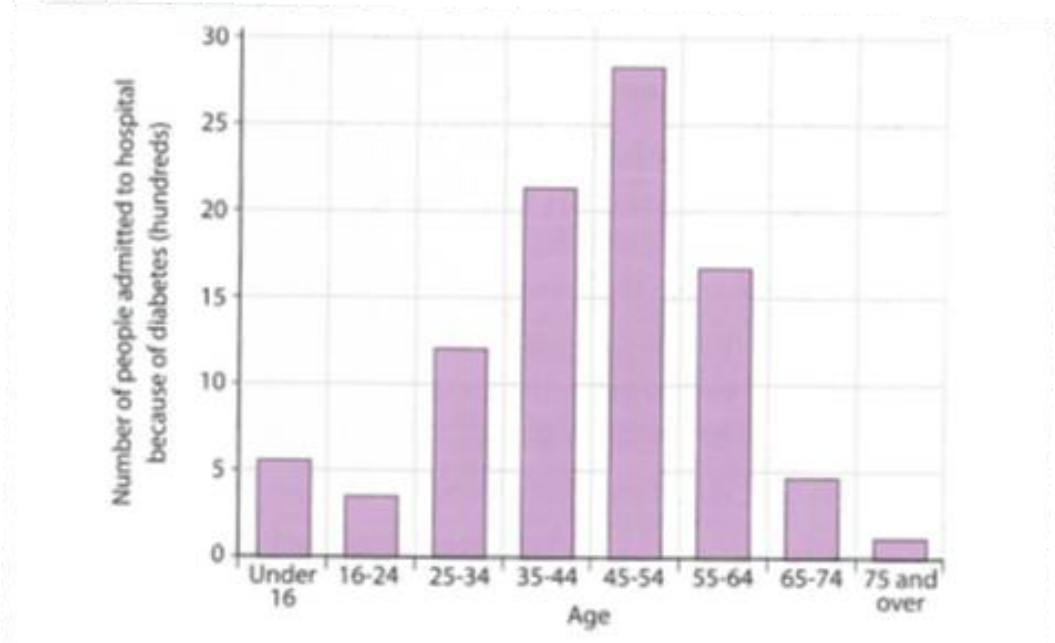


Figure 2.2 People admitted to hospital in 2013 because of diabetes, by age group

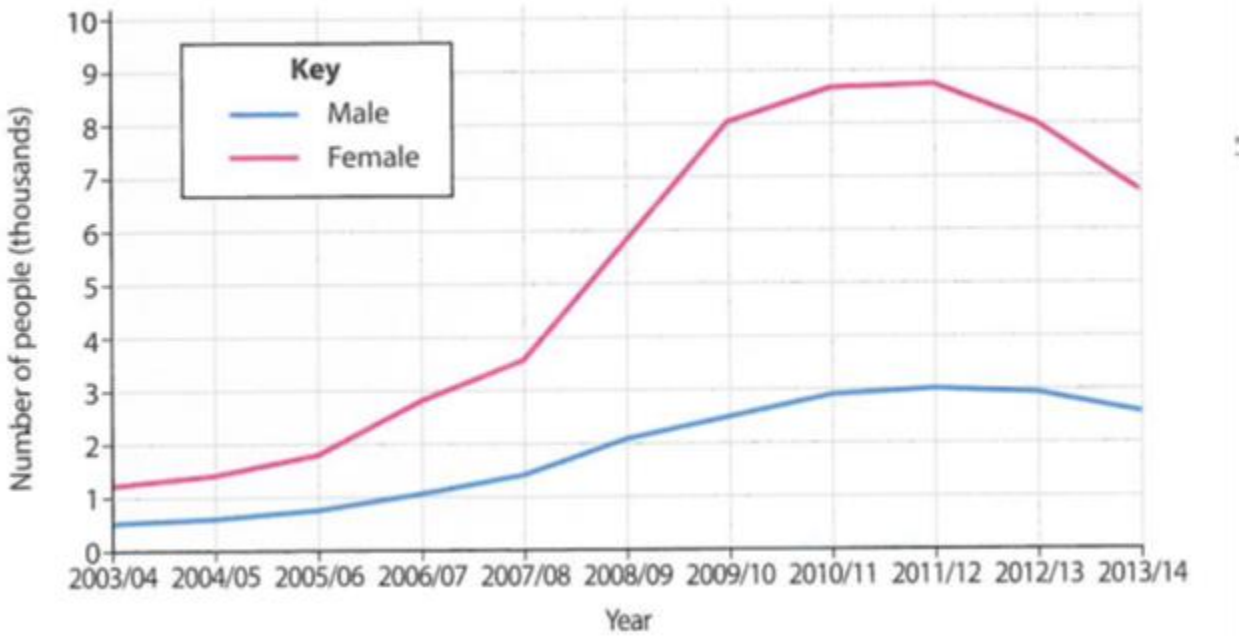


Figure 2.3 Number of people going to hospital because of diabetes from 2003/04 to 2013/14 by gender

Q1) What age group has the most cases of diabetes?

Q2) Which age group has the lowest number of diabetes?

Q3) How many people were admitted to hospital because of diabetes?

Q1) In which year did the highest number of women go to hospital because of diabetes?

Q2) Give one reason why the figures for men and women might be different?

Q3) Describe the broad trend in people going to hospital because of diabetes from 2003/04 to 1023/14?

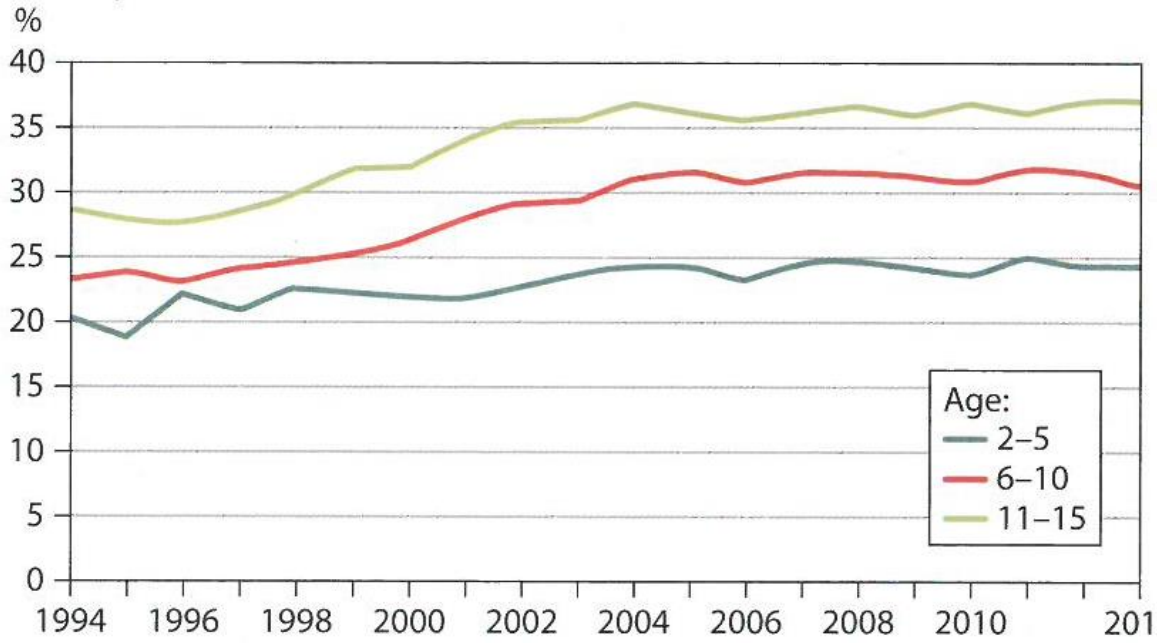
Complete in Booklet

Interpreting Data – Body Weight

Activity

DATA

4 This graph shows the percentage of children who are overweight, by age group, between 1994 and 2013.



Source: King's College London, from www.bbc.co.uk/news/health-31041864

a) Interpret the data: Describe the trend for each year group between 1994 and 2013.

b) Analyse the data: What does the trend suggest about how the lifestyles of 2 to 5-year-olds have changed between 2003 and 2013?

c) Analyse the data: Predict the percentage of children who will be overweight, by age group, in 2020.

Apply Core Knowledge

Q1) Give an example of a sedentary lifestyle choice & explain a potential health problem due to this lifestyle (3 marks)

Q2) Explain the difference between being overfat and overweight (3 marks)

Q3) Identify two physical health risks associated with being obese (2 marks)

Q4) Briefly explain one impact of being overfat on achieving sustained involvement in physical activity (3 marks)

Q5) There are three weight issues; overweight, overfat & obese. Explain why a sumo-wrestler, jockey and rugby player may view the impact of these issues on their performance differently (3 marks)

1. Complete Quiz
2. Complete Questions in Purple Workbook
3. Complete Past Paper Questions

Pop Quiz

7 Categories of balanced diet – highlight micro and macro

What is carbo-loading

How do we lose weight

Name the 3 weight related issues (define) from a sedentary lifestyle

Name the 7 long term health problems from a sedentary lifestyle

Participation & Engagement

Health & Performance

5 Personal Factors Affecting Participation - SAGED

Target Groups - Under-represented in sport

Number of people taking part in sport is rising but 58% of the population play no sport

S – Socio-economic
A – Age
G – Gender
E – Ethnicity
D – Disability

Barriers which Affect Participation

Access	**Stereotyping**	**Time**	**Nature of Activity**
Cultural Influences	**Image**	**Cost**	**Availability**

Fill in Booklet
Complete Worksheet 3.1.1 & 3.1.2
Complete Video 9 Worksheet

Target Group	Barrier
Socio-Economic	Access – upper class sports, private member clubs Cost – equipment, membership, match fees, travel costs Availability – lack of faculties in deprived areas
Age	Access – travel, awareness of opportunities Image – e.g. fashionable Golf and Tiger Woods Time – school/working hours/retired Nature of Activity – health with high adrenaline and contact sports Cost – wage/retired Stereotyping – poor self image, lack confidence, publics opinion
Gender	Stereotyping & Nature of Activity – some sports see as masculine (boxing), media coverage Cost – Pay gap Image – self and publics opinion – this girls can campaign Availability – women's clubs Time – family commitments
Ethnicity	Stereotyping – ethnic football managers, lack of role models Cultural – national sports
Disability	Access e.g. ramps, hoists, stereotyping, nature of activity and availability - adapted sessions

Complete in Booklet

Interpreting Data – Participation Rates

Perceived: What somebody thinks or feels to be the case

Currently regularly participate

Amongst regular participants, men value secondary school age experience more than women.

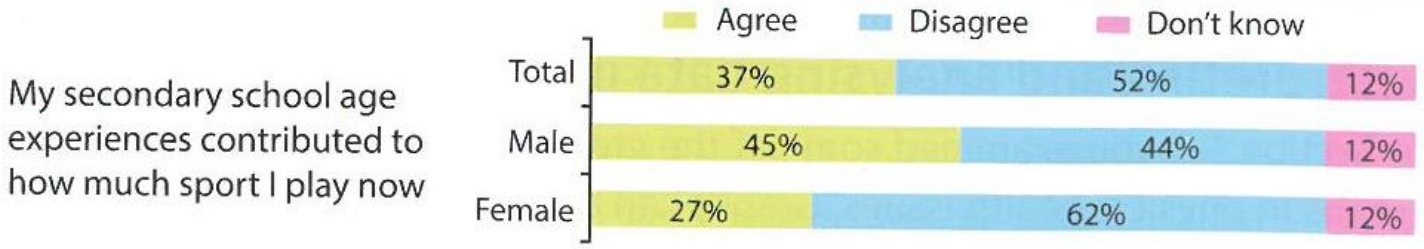


Figure 2.6 Perceived impact of school experience of sport on later participation

Interpret Figure 2.6:

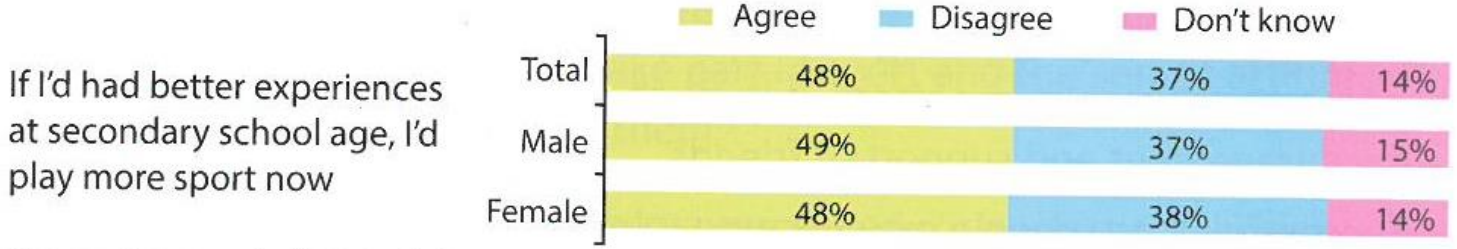
Q1) What statement are the people agreeing or disagreeing with?

Q2) What is the overall picture for men and women, using statistics from the top line?

Q3) How much do the responses of men and women vary?

Currently less/not active

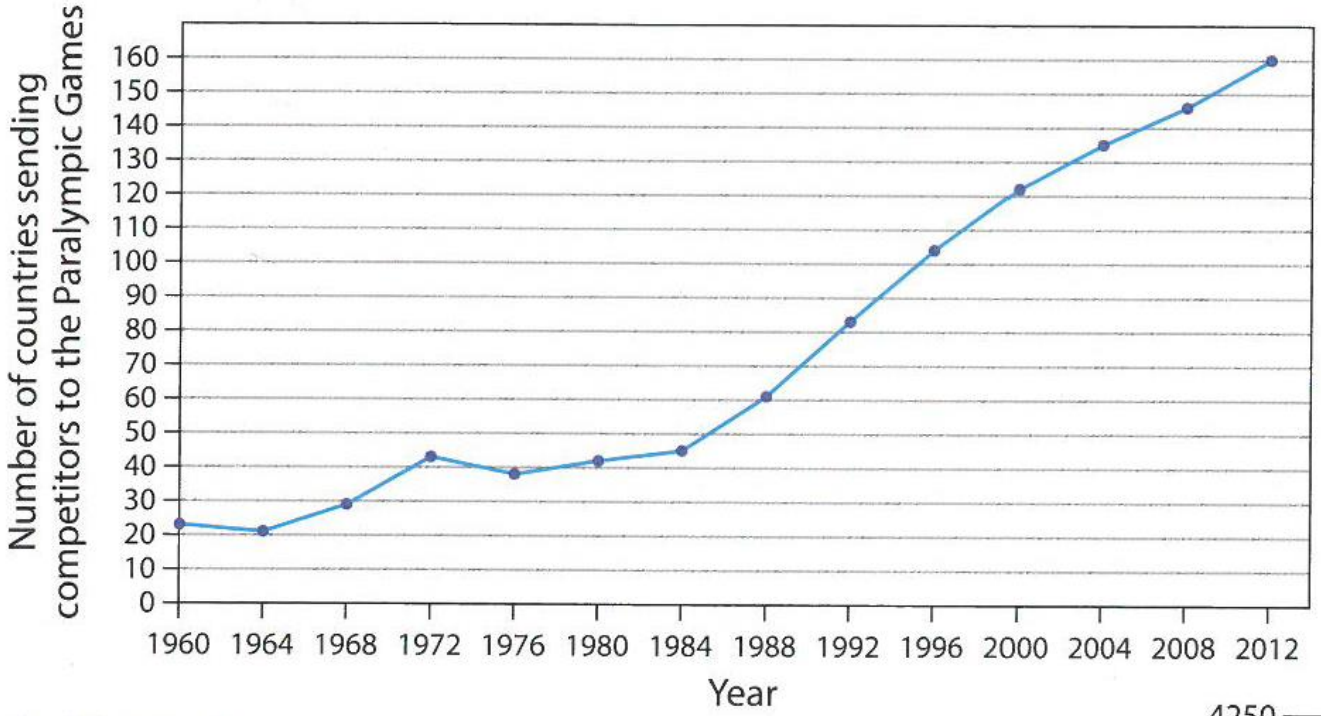
Men and women who **don't** currently participate regularly have very similar opinions on the impact of their experience of sport at secondary school age on their current participation levels.



Q4) Look at the 2 graphs together and compare the results. What does this show?

Complete in Booklet

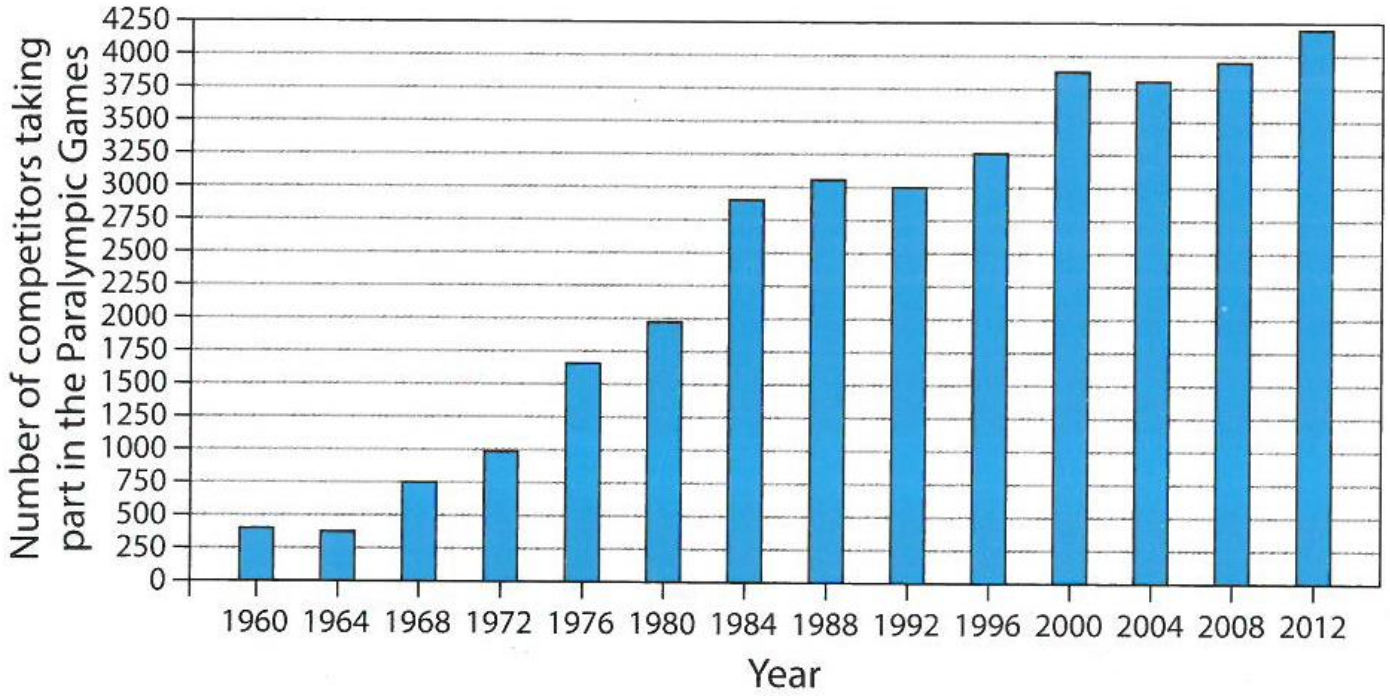
Interpreting Data – Participation Rates



Interpret Figure 1: What does the graph tell you about the number of countries sending competitors to the Paralympic Games between 1960 & 2012?

Interpret Figure 2: What does the graph tell you about the number of competitors taking part in the Paralympic Games between 1960 & 2012?

Analyse Figure 2: Make a prediction based on your analysis of the trends. What would you expect 2016's data to show?



Sporting Behaviours & Deviance

Health & Performance

Fill in Booklet

Different Types of Sporting Behaviour

Deviance: Unacceptable behaviour and is against the rules of the sport. E.g. cheating/taking PEDs/violence/racism/sexism

Gamesmanship: Bending the rules/laws of a sport without actually initially breaking them.

Sportsmanship: ”Qualities of fairness, following the rules, being gracious in defeat or victory.”

Why do athletes resort to deviance?

What are the consequences for deviance?

What is being done to prevent deviance?
Is it getting worse?

What does sportsmanship & gamesmanship create?

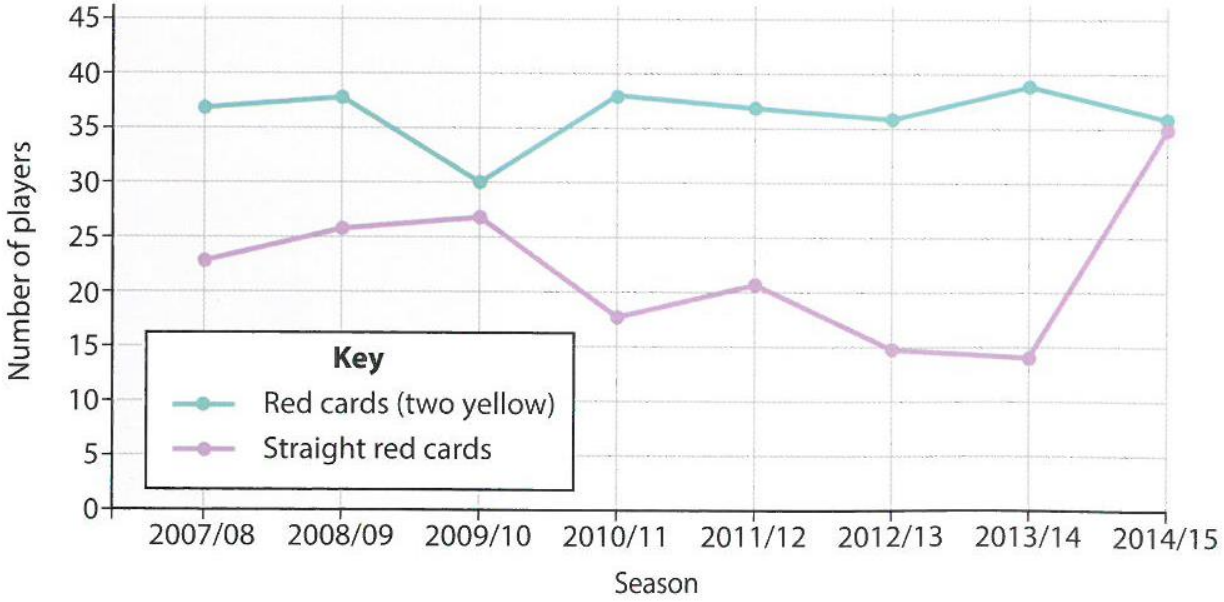

RESPECT


BBC
SPORT

Complete in Booklet

Interpreting Data – Sporting Behaviour

Figure 2.8 Graph to show the number of red cards given in Premiership matches from 2007/08 to 2014-15



Q1) Use the information from the graph in figure 2.8 to complete the blank spaces in table 2.5

Q2) Discuss what this information reveals about the general trends in fouls and misconduct in football?

Q3) Are the number of red cards increasing or decreasing?

Q4) Is this the same for 'straight' red cards and for red cards given after two yellow cards?

Q5) What factors might account for this?

Table 2.5 Table to show the number of red cards given in Premiership matches from 2007/08 to 2014-15

Season	Red Cards (two yellows)	Straight Red Cards	Total Number of Red Cards Issued
2007-08	23	37	
2008-09	26		64
	27	30	57
2010-2011		38	56
	21	37	58
2012-13		36	51
	14	39	
2014-15	35		71

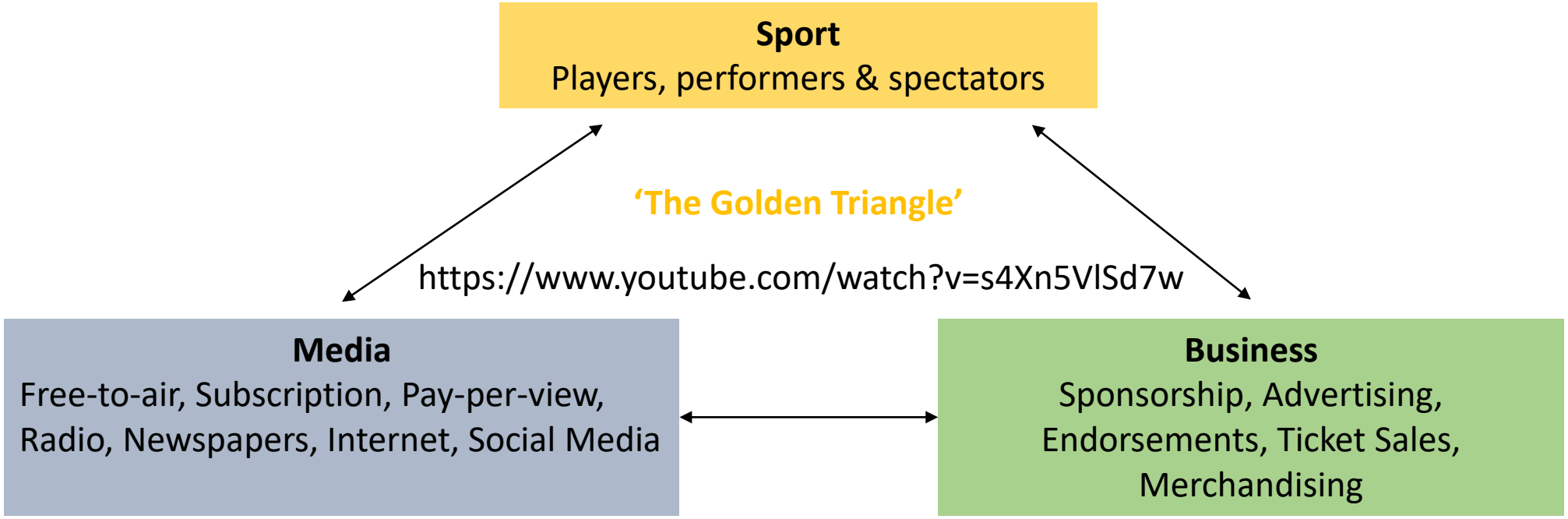
Commercialisation

Health & Performance

Commercialisation of Physical Activity & Sport

Fill in Booklet

"Making something available on the market; using something to make a **profit**"

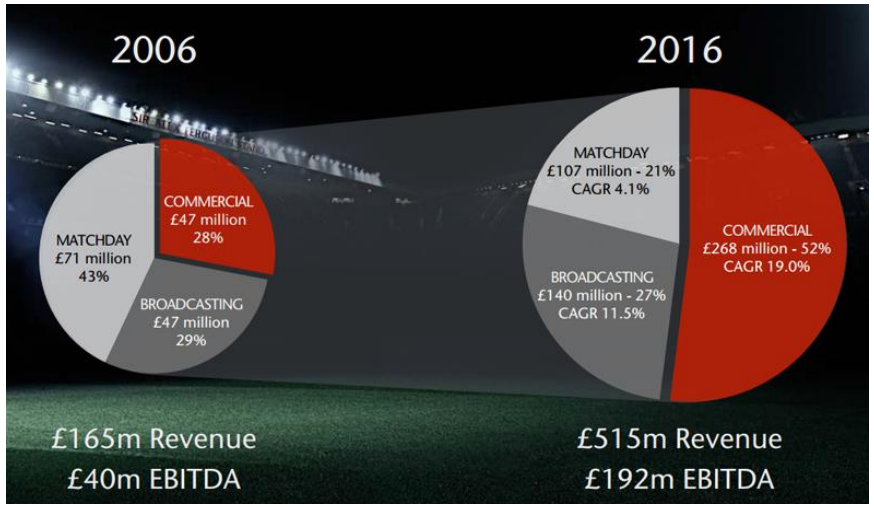


The benefits each gives the other is essential to maximises opportunity & profit

What Premier League clubs are worth

Rank	Club	Value (£m)
1	Man Utd	£1,848
2	Arsenal	£1,118
3	Man City	£907
4	Chelsea	£826
5	Tottenham	£710
6	Liverpool	£537

Sport

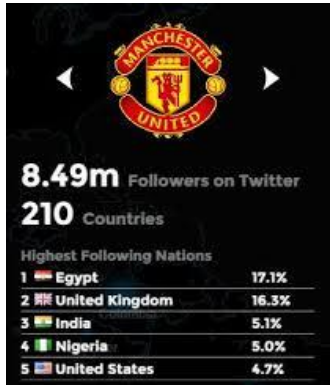


Business

bwin · DHL · Thomas Cook · HUBLOT GENEVE · AON · SINGHA BEER · airtel · CHEVROLET · SMIRNOFF · EPSON · TURKISH AIRLINES · Casillero del Diablo

Media

SKY SPORTS · BT Sport · BARCLAYS PREMIER LEAGUE · ESPN · MUTV · talkSPORT



Fill in Booklet

Advantages & Disadvantages of Commercialisation

Sport

Advantages: More media increases grassroots participation and money from businesses. More money available for teams, equipment, facilities, coaches and players, Prize funds and awards bigger, More money spend on technological development that can help performance, More competitions and events, More role models and ambassadors

Disadvantages: Rules and fixtures changed to meet requirements of sponsors and media, Over-exposure, Minority sports get less coverage, Controversies become sensationalised giving sport bad reputation, Sports incredibly dependent on money from media & sponsors, Sponsors may promote and sell products or services that promote poor lifestyle choices, breaks in play for advertisements

Players

Advantages: Players paid high wages, Media turn players into role models and paid to endorse products, More money to pay for technological advanced equipment & facilities, More money to pay for better coaching, More competition raises standard & national teams profile, More money for players at grassroots to train full time and progress to elite

Disadvantages: Media coverage pressure to perform & win at all costs, Media spotlight highlights mistakes, Sponsors may dictate a players behaviour disrupting training, Intense scrutiny of private lives, More competition can led to overuse injuries, Too may competitions can reduce the standard, Women paid less than men due to media and sponsors focus, Achievements of one or two can be emphasised at the expense of the team, Change of timings may be less favourable, Negative reporting can lose sponsorship

Fill in Booklet

Complete Worksheet 3.2.1-3.2.2

Advantages & Disadvantages of Commercialisation

Spectator

Advantages: Events are scheduled so easily watch them on TV or online, Commentary educates the viewer, More live coverage of top events, highlight, documentaries & coaching tips engages and educates, Media provide information on fixtures, tables, rankings, Money spent on technology to improve viewing with replays and close-ups, Media coverage of role models outside of sport connects fans to players, Able to buy same clothes & equipment as role models

Disadvantages: More people stay at home to watch, Most sport subscription or pay-to-view so expensive to watch, Tickets and merchandise expensive, More popular sport become more difficult to get a ticket due to hospitality reasons, Scheduling for home-viewing make it more difficult to watch live, Minority sports not shown

Sponsors

Advantages: Sponsors name is linked to a positive, healthy and successful activity and advertised to a wide audience, increasing profits for the brand, relatively cheap

Disadvantages: If a sponsor links their name to a team or player that is hit by scandal or poor performances it can have a damaging effect on its reputation and profits, some sports may not get high number of viewers & therefore exposure

Complete in Booklet

Interpreting Data – Commercialisation

Exam-style question

The graph below shows the final position of 17 Premier League clubs for the 2014/15 season and the corresponding adult season ticket price for those clubs in 2016.

1 What overall pattern can you see in the prices of season tickets for 2016?

2 What was the 2014/15 position of the team that has the most expensive season ticket price in 2016?

3 Find out (look on the internet) which clubs were the top four at the end of the 2014/15 season. Why do you think Club no. 3 charges so much more for their season tickets than Club no. 4? What other factors might be involved?

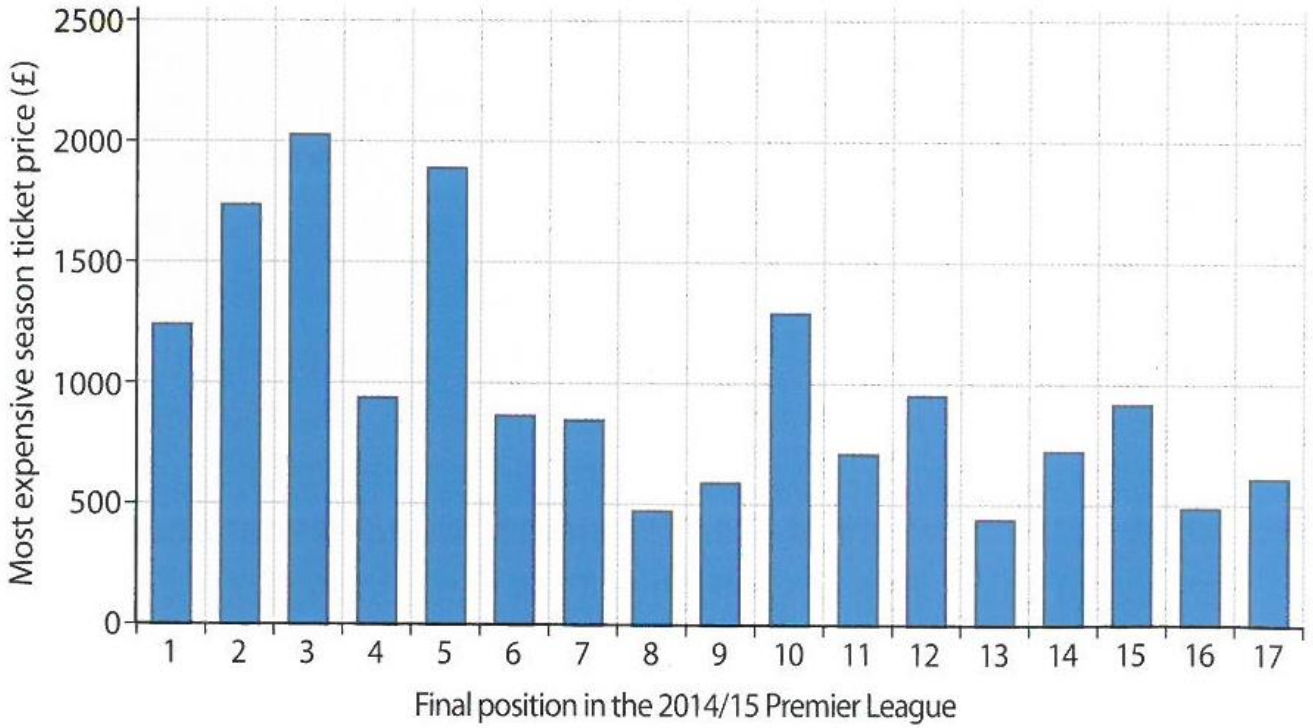


Figure 2.7: Graph to show the final position of 17 Premier League clubs for the 2014/2015 season and the corresponding adult season ticket price for those clubs in 2015-16.

Apply Core Knowledge

- State one reason why sportsmanship is a better behaviour than gamesmanship (1 mark)
- State why commercial organisations such as Visa are interested in sponsoring events such as the Olympic Games (2 marks)
- State two reasons why performers such as Lewis Hamilton what sponsorship deals (2 marks)
- Give reasons why the media dictating the start times of an event might be a disadvantage to athletes (3 marks)
- Explain one consequence of an elite performer could face if found guilty of match fixing (3 marks)
- Some sports have higher participation rates than others. Explain two ways in which the media can discourage participation in some sports (4 marks)

1. Complete Quiz
2. Complete Questions in Purple Workbook
3. Complete Past Paper Questions