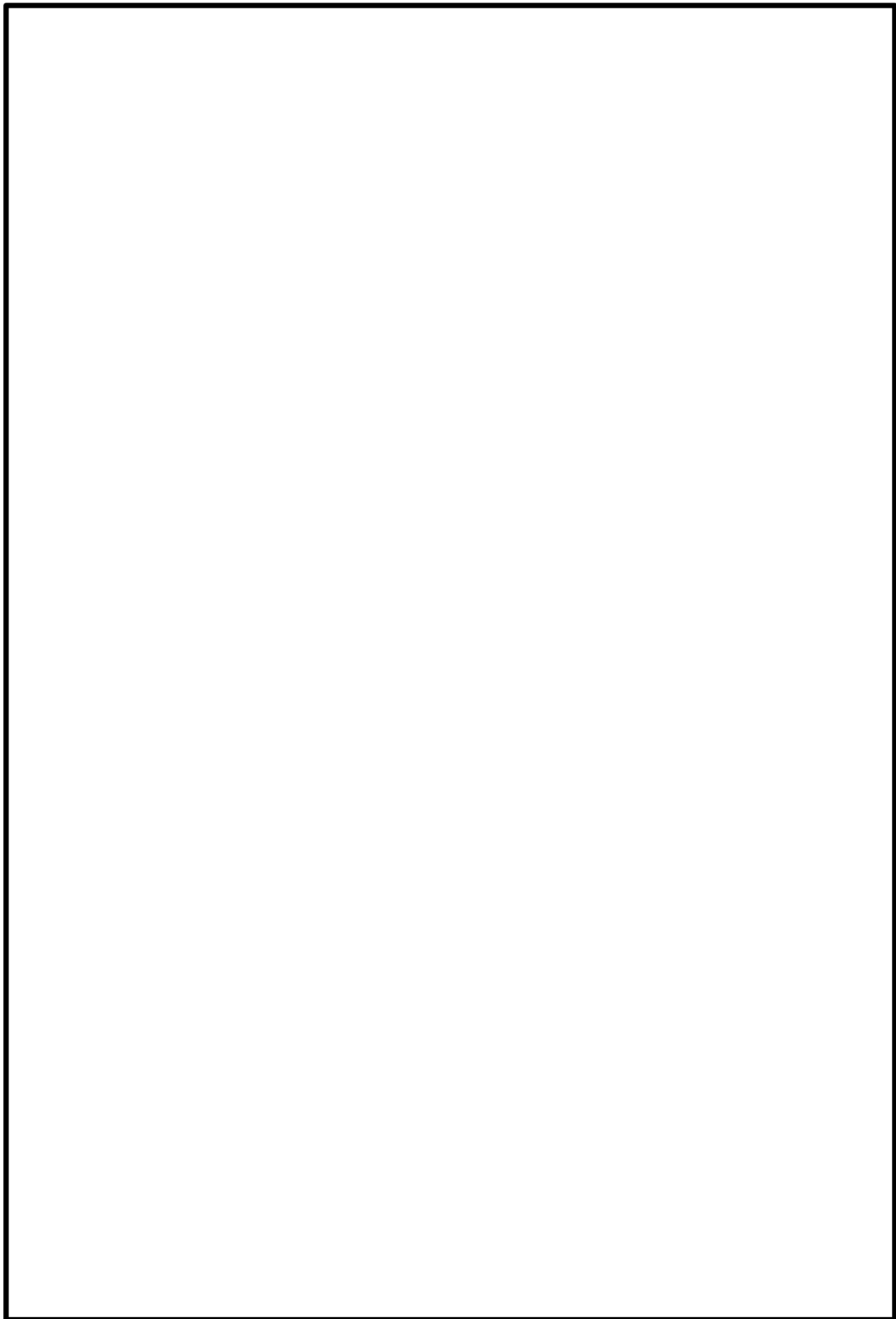


Year 11
GCSE PE
Revision
Booklet



Topic 3

Physical Training

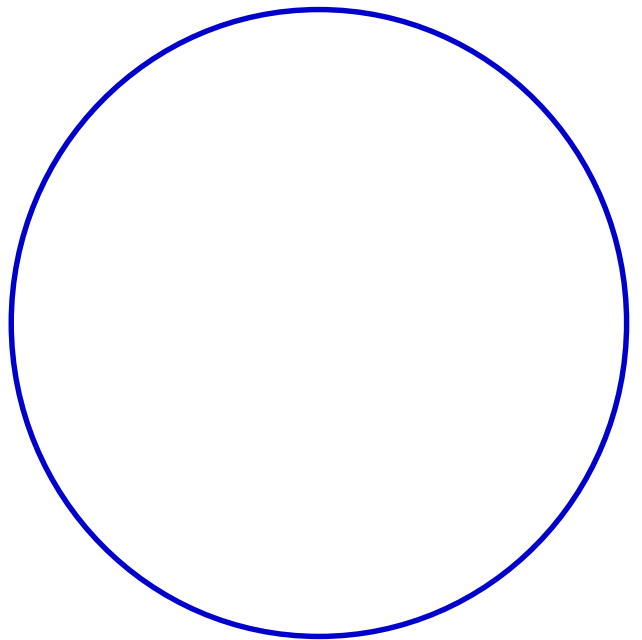
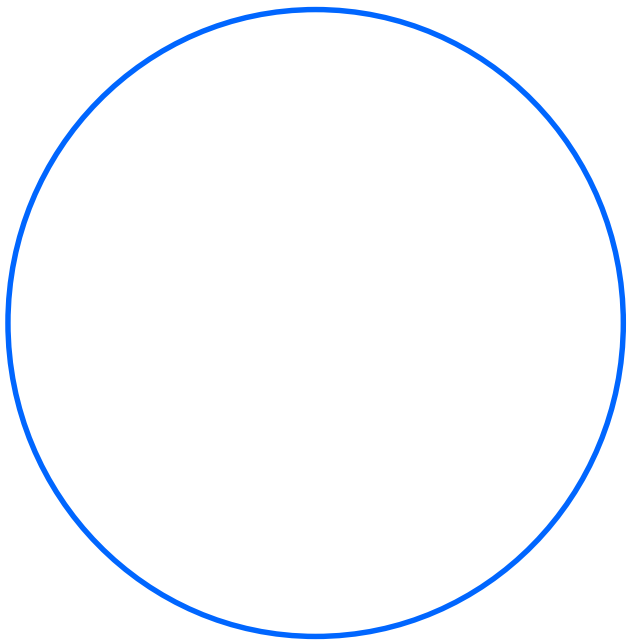
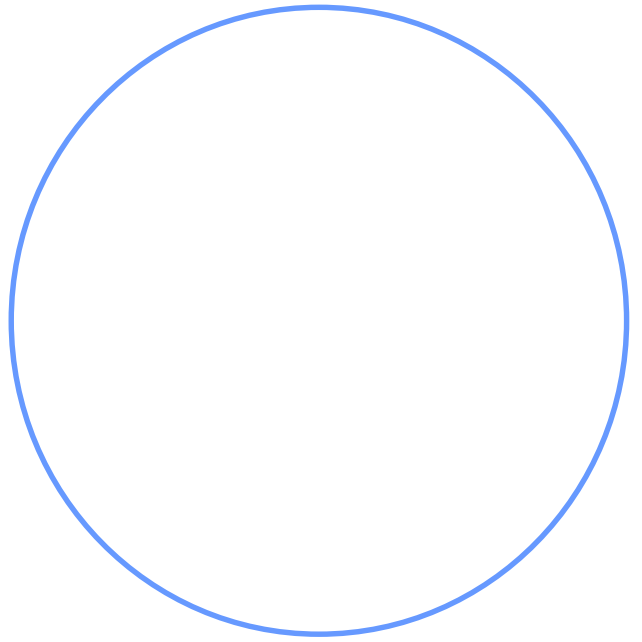
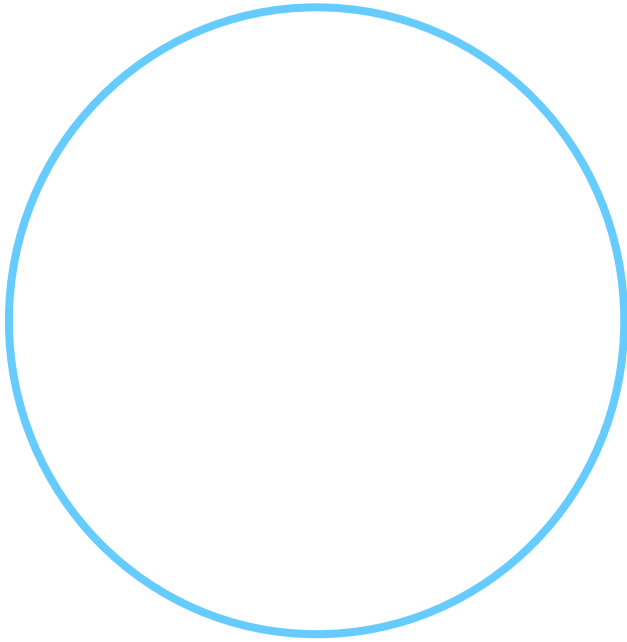


In this section you will develop your knowledge and understanding of:

- The relationship between health and fitness and the role it plays in exercise
 - The components of fitness in exercise and how they are measured
- The Principles of training and how they are applied to a personal exercise programme
 - The long term effects of exercise.
 - How to optimise training and avoid injury.
 - Effective use of a warm up and cool down

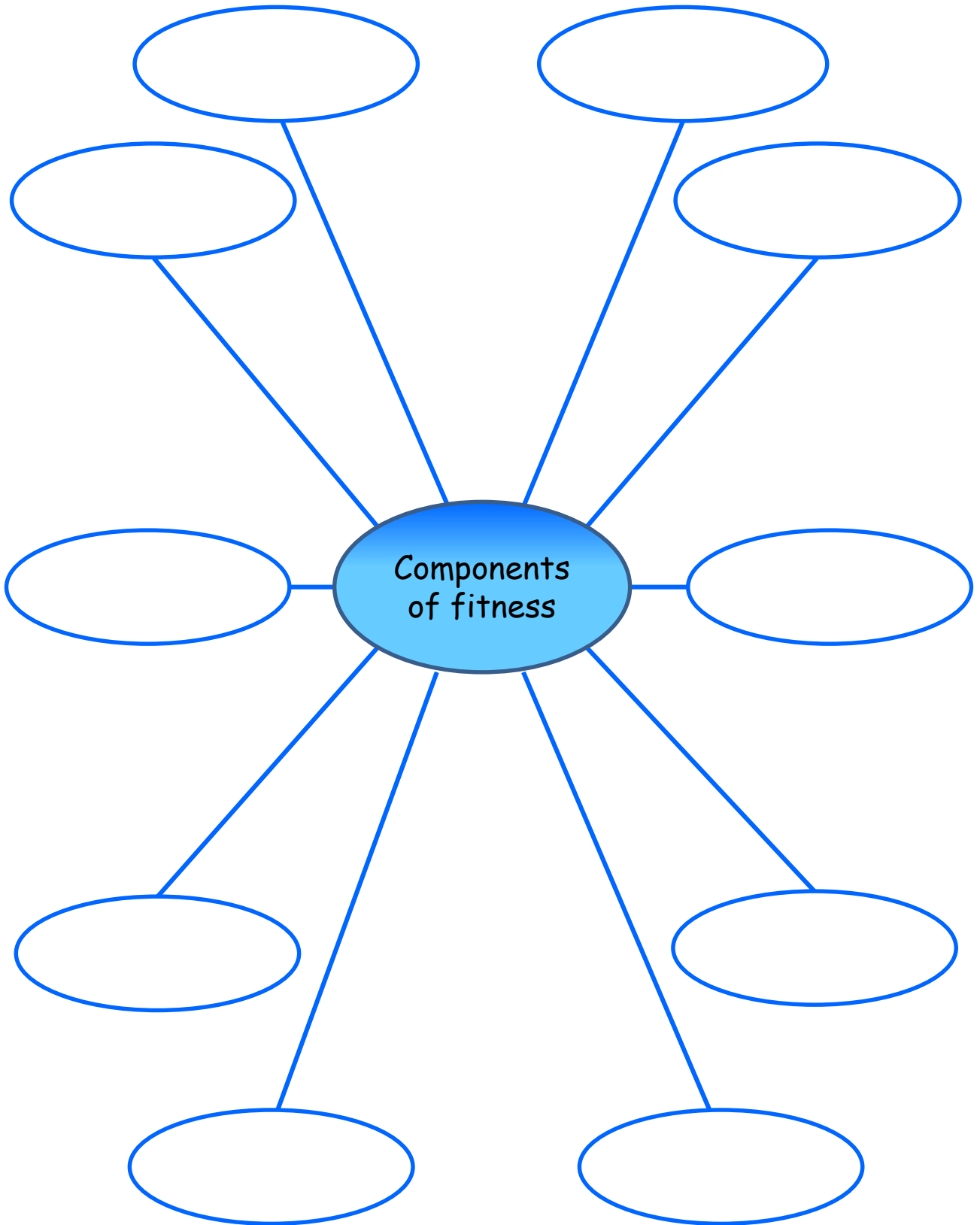
Health, Fitness & Exercise

TASK - Define, Health, Fitness, Exercise & Performance



Components of Fitness

TASK - Identify the 11 components of fitness



Components of Fitness

TASK - Complete the boxes below

| | | |
|------------------------------------|-----------------------------------|--------------------------|
| Name of Component and fitness test | What is the component definition? | What is needed for test? |
| What is needed for test? | Advantages of test | Disadvantages of test |

| | | |
|------------------------------------|-----------------------------------|--------------------------|
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Components of Fitness

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|------------------------------------|-----------------------------------|--------------------------|
| Name of Component and fitness test | What is the component definition? | What is needed for test? |
| What is needed for test? | Advantages of test | Disadvantages of test |

Principles of Training

TASK - Complete the boxes below

| Principle of Training | Description |
|-----------------------|------------------|
| S | |
| P | F I T T |
| O | |
| R | |
| I | |

Methods Of Training

TASK - Complete the boxes below

Method of training

Explanation of Method

Advantages of Method

Disadvantages of Method

What sports performer?

Method of training

Explanation of Method

Advantages of Method

Disadvantages of Method

What sports performer?

Methods Of Training

TASK - Complete the boxes below

| | | |
|-------------------------|------------------------|----------------------|
| Method of training | Explanation of Method | Advantages of Method |
| Disadvantages of Method | What sports performer? | |

| | | |
|-------------------------|------------------------|----------------------|
| Method of training | Explanation of Method | Advantages of Method |
| Disadvantages of Method | What sports performer? | |

Methods Of Training

TASK - Complete the boxes below

Method of training

Explanation of Method

Advantages of Method

Disadvantages of Method

What sports performer?

Method of training

Explanation of Method

Advantages of Method

Disadvantages of Method

What sports performer?

Methods Of Training

TASK - Complete the boxes below

| Method of training | Explanation of Method | Advantages of Method |
|-------------------------|-----------------------|------------------------|
| Disadvantages of Method | | What sports performer? |

TASK - come up with an acronym or Mnemonic to help you remember the Methods of training

CIFWPCF

PAR-Q

Task - Describe what a Par-Q is and what it is used for

Create your own PAR-Q

Long term effects of exercise

TASK - split the long term effects from the short term effects of exercise by circling them in two different colours

Increased rate of breathing

Increased blood pressure

Increased strength of diaphragm and intercostal muscles

Increased bone density

Increased number of red blood cells

Increased elasticity of muscular walls

Cardiac hypertrophy

Increased number of alveoli

Sweating

Lactic acid arrival

Increased heart rate

Vascular shunting

Increased strength of muscle and tendons

Increased muscular endurance

Muscle Fatigue

Muscle hypertrophy

Sporting Injuries

Task - What are the rules for avoiding injury

Rule 1

Rule 2

Rule 3

Rule 4

Rule 5

Rule 6

Types Of Sporting Injuries

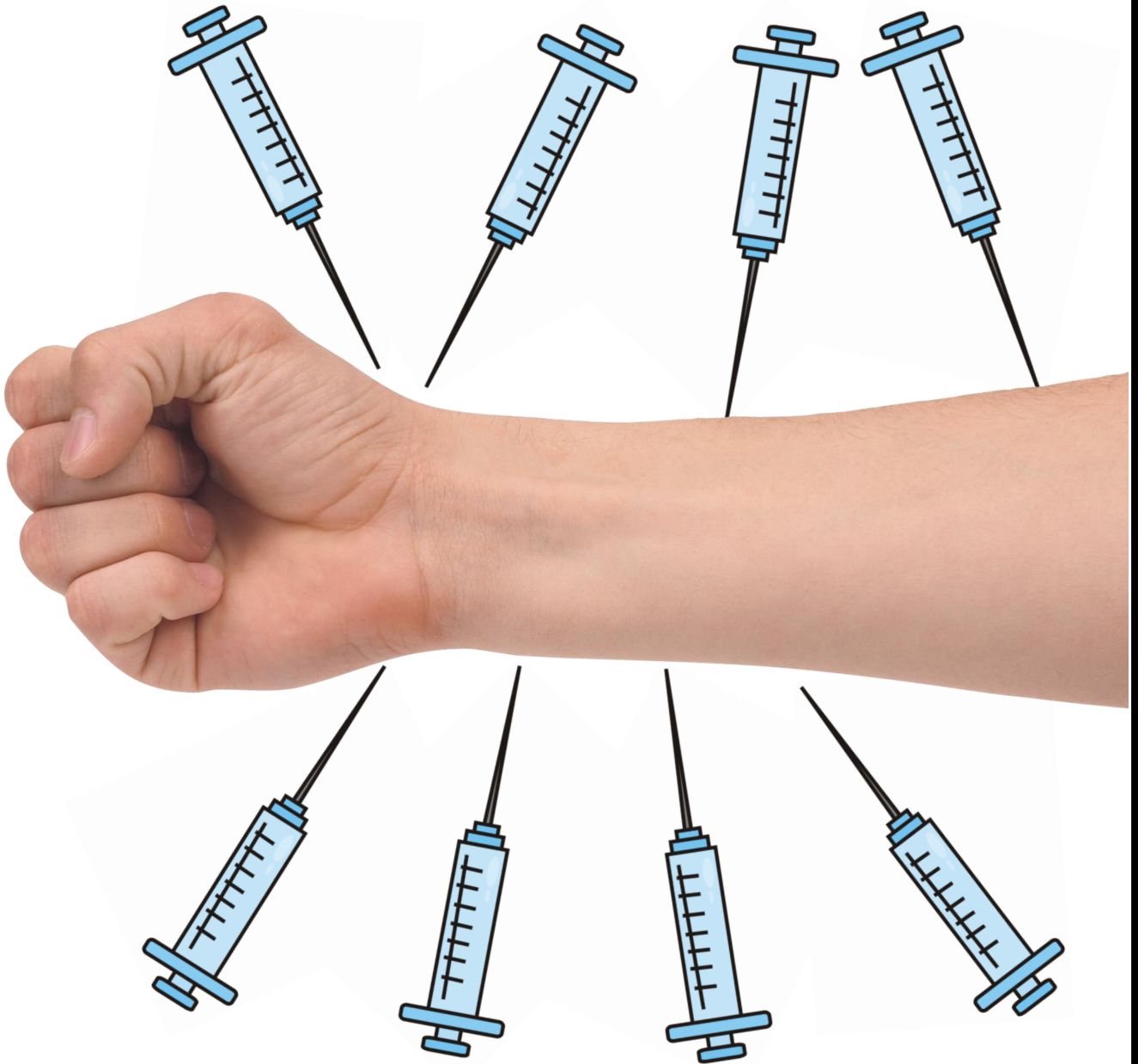
Task - Use the words below to fill in each box

| Injury type | Description | Symptoms |
|-------------|-------------|----------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | | |
|---|-------------------------------------|--|
| Concussion | Stiffness, pain and swelling | Severe pain/unable to move specific joint |
| Ligament stretched or tear | Dislocation | Fracture |
| Soft Tissue - Strain/Golfers elbow/ Abrasions | Torn Cartilage | Muscle or Tendon tear & Overuse of certain joint |
| Headaches/Dizziness/ Nausea | Bones being displaced at a joint | Sudden short lived loss of memory function |
| Pain directly at the sight of the injury and or blood etc | Tearing most commonly at the knee | Sprain |
| Bruising/ swelling or deformity | Broken Bone | Numbness r physical deformity |

Performing enhancing drugs

Draw a line from each needle and name a different performance enhancing drug



Performing enhancing drugs

Task - Use the words on the following page to fill the boxes below.

| <u>Drug</u> | <u>Advantages to the performer</u> | <u>Dangers and side effects</u> | <u>Which sports do they help</u> |
|------------------------|------------------------------------|---------------------------------|----------------------------------|
| Beta Blockers | | | |
| Anabolic Steroids | | | |
| Narcotic Analgesics | | | |
| Diuretics | | | |
| Stimulants | | | |
| Peptide hormones (EPO) | | | |
| Growth Hormone | | | |
| Blood Doping | | | |

| | | |
|---|--|--|
| More oxygen delivered to working muscles | Darts | Increased muscle size and mass |
| Sprinter | Lowering HR too much can lead to heart failure | Slows heart rate and makes performer calmer |
| Thicker blood could lead to heart attack | Footballer | Can lead to organ damage and high blood pressure |
| Boxer | Increased risk of blood clots | Can lead to dehydration |
| Faster muscle recovery time and increase mass | Cyclist | Increase alertness and concentration |
| Increased muscle or joint pain | Increase in aggression and can be addictive e.g. cocaine | More red blood cells = more oxygen delivery |
| Boxer | Loss of coordination and balance | Marathon Runner |
| Masks pain | Shot Putter | Increase weight loss flushes body |

Warm Up & Cool Down

Task - Identify & Explain the 4 stages of a warm up and 3 stages of a cool down



Warm up



Cool Down

Exam Style Questions

- 1 Reggie is a 17-year-old footballer. He has just taken the 30 m sprint test.

Table 1 shows the normative data for 16–19-year-olds for the 30 m sprint test.

| | Excellent | Above average | Average | Below average | Poor |
|--------|-----------|---------------|-------------|---------------|-----------|
| Male | < 4 sec | 4.2–4 sec | 4.4–4.3 sec | 4.6–4.5 sec | > 4.6 sec |
| Female | < 4.5 sec | 4.6–4.5 sec | 4.8–4.7 sec | 5–4.9 sec | > 5 sec |

Source: Davis, B. et al., *Physical Education and the Study of Sport, 4th edition*, Harcourt, 2000.

- Which one of the following is the correct rating for Reggie, given his score of 4.08 in the 30 m sprint test? (1)
- A Excellent
 - B Above average
 - C Average
 - D Below average
- 2 Which one of the following performance-enhancing drugs is a performer most likely to take to increase production of red blood cells? (1)
- A Diuretics
 - B Narcotic analgesics
 - C EPO
 - D GH
- 3 Which one of the following fitness tests measures strength? (1)
- A Sit and reach test
 - B Vertical jump test
 - C Cooper 12-minute test
 - D Grip dynamometer
- 4 Which one of the following is **not** an example of a training method that can be used for improving cardiovascular fitness? (1)
- A Continuous training
 - B Weight training
 - C Fartlek training
 - D Interval training
- 5 A 50 m sprint swimmer wants to improve her time in a race and her coach has included weight training in her training programme to help her do this.
- a) State two advantages of using weight training to improve fitness. (2)
 - b) Using the FITT principle, state how the swimmer's coach would apply intensity to the weight training programme in order to increase fitness levels. (2)