GREENSHAW
LEARNING TRUST

Scott
Scott Medical and Healthcare College

Autumn Term
(Half Term 1 & 2)

Sport

Year 11

Name: _____

Tutor: _____

Care to Learn

Learn to Care

GREENSHAW LEARNING TRUST

Year 11 Homework Timetable

Monday	English Task 1	Option A Task 1	Option C Task 1
Tuesday	Sparx Science	Option B Task 1	Sparx Maths
Wednesday	Sparx Maths	Science Task 1	Option C Task 2
Thursday	Option A Task 2	Sparx Science	Option B Task 2
Friday	Science Task 2	English Task 2	

Sparx Science

- **Complete 100% of their assigned homework each week**

Sparx Maths

- **Complete 100% of their assigned homework each week**

Option A
French
Health and Social Care
Psychology
Performing Arts

Option B
History
Health and Social Care
Psychology

Option C
Health and Social Care
Psychology
Spanish
Sports Studies

Half Term 1 (6 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 2 11th September 2023	**Cornell Notes on:** Components of Physical Fitness	**Question**: Identify two physical components of fitness that are required for a midfielder in football and explain how they benefit their performance in a match. (4)
Week 3 18th September 2023	**Cornell Notes on:** Components of Skill Related Fitness	**Question**: Identify two skill components of fitness that are required for a basketballer and explain how they benefit their performance in a match. (4)
Week 4 25th September 2023	**Cornell Notes on:** The importance of fitness for successful participation in sport	**Question**: Identify a component of fitness that a marathon runner would require, and compare this to a component of fitness a 100m sprinter would require. (4)
Week 5 2nd October 2023	**Cornell Notes on:** Principles of Training	**Question:** Identify and explain how an athlete might use each part of FITT to improve their running time. (4)
Week 6 9th October 2023	**Cornell Notes on:** Exercise Intensity	**Question**: Jodie is 28 years old. Work out her maximum heart rate, then her upper and lower training thresholds. Show your workings out. (3)
Week 7 16th October 2023	**Cornell Notes on:** Importance of fitness testing and requirements for administration of each fitness test	**Question**: Identify and explain the four pre-test procedures required to complete before a fitness test. (4)

Half Term 2 (8 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 8 30th October 2023	**Cornell Notes on:** Fitness test methods for components of physical fitness	**Question**: Gymnasts require a wide range of movement for their events. Identify what flexibility fitness tests would be beneficial and the equipment required. (4)
Week 9 6th November 2023	**Cornell Notes on:** Fitness test methods for components of skill-related fitness	**Question**: Table tennis requires quick reactions for their games. Identify what reaction time fitness tests would be beneficial and the equipment required. (4)
Week 10 13th November 2023	**Cornell Notes on:** Fitness training methods for physical components of fitness	**Question**: 100m sprinters require speed to complete their race, identify and explain 3 training methods a 100m sprinter could use. (6)
Week 11 20th November 2023	**Mock Exams**	**Mock Exams**
Week 12 27th November 2023	**Mock Exams**	**Mock Exams**
Week 13 4th December 2023	**Cornell Notes on:** Fitness training methods for skill-related components of fitness	**Question**: Long jumpers require power to complete their event, identify and explain how they could complete plyometric training to benefit their event. (4)
Week 14 11th December 2023	**Cornell Notes on:** The effects of long-term fitness training on the body systems	**Question**: Identify and explain the long term muscular strength training effects a weight lifter would benefit from? (4)
Week 15 18th December 2023	**Cornell Notes on:** Fitness programming to improve fitness and sports performance	**Question**: Identify and give examples of the two types of motivation a netball player may use. (4)

Week 2 - Components of Physical Fitness	Week 3 - Components of Skill Related Fitness
Physical: ● Muscular Endurance:the ability of the muscular system to continue to contract at a light to moderate intensity to allow repetitive movements throughout a long event or game. ● Aerobic Endurance: the ability of the cardiorespiratory system to supply oxygen and nutrients to the muscles to sustain low to medium intensity work to delay fatigue. ● Muscular Strength: the maximum force that can be generated by a muscle or muscle group to improve forceful movements within an activity. ● Speed: distance divided by time to reduce time taken to move the body or a body part in an event or game. ● There are three types of speed: 1. Accelerative speed – sprints up to 30 m 2. Pure speed- sprints up to 60 m 3. Speed endurance- sprints with a short recovery period (rest) in between. ● Body Composition: the relative ratio of fat mass to fat-free mass in the body allowing variation in body composition dependent on the sport. ● Flexibility:the range of motion possible at a joint to allow improvements in technique.	**Skill related:** ● Coordination: The smooth flow of movement needed to perform a motor task efficiently (wasting as little energy as possible) and accurately (without going wrong). ● Agility:the time taken between a stimulus and the start of a response, useful in fast-paced sports to make quick decisions about what to do. ● Reaction time: The time that it takes for a sports performer to respond to a stimulus and initiate (start) their response. ● Balance: the ability to maintain centre of mass over a base of support, useful to maintain positions in performance sports (static balance) or when on the move in any other sporting situation (dynamic balance). ● Power: the product of speed and strength to allow for explosive movements in sport.

Week 4 - The importance of fitness for successful participation in sport

Types of sports requiring specific components of fitness:

- Aerobic endurance – events/sports lasting more 30 minutes
- Muscular endurance – events/sports lasting more 30 minutes
- Muscular strength – activities requiring force, e.g. throwing events
- Speed – activities requiring fast movement, e.g. sprinting
- Flexibility – activities requiring a wide range of movement around a joint, e.g. gymnastics, martial arts
- Body composition – low body fat, e.g. gymnastics, high muscle mass, e.g. sprinters
- Power – activities requiring explosive movement e.g. gymnastics, basketball
- Agility – activities requiring quick changes of direction, e.g. dodging the opposition in a team game, freestyle skiing
- Reaction time – any activity where a quick decision or response to a stimulus is needed
- Balance – an activity requiring the control of the distribution of weight or to remain upright and steady
- Coordination – any activity requiring the movement of two or more body parts and can include the use of sporting

Week 5 - Principles of Training

The basic principles of training (FITT):

- Frequency: the number of training sessions completed over a period of time, usually per week
- Intensity: how hard an individual will train
- Time: how long an individual will train for
- Type: how an individual will train by selecting a training method to improve a specific component of fitness.

Additional principles of training (SPORVAIR):

- Specificity definition: training should meet the needs of the sport, or physical/skill-related fitness goals to be developed
- Progressive overload definition: in order to progress, training needs to be demanding enough to cause the body to adapt, improving performance
- Reversibility definition: if training stops, or the intensity of training is lowered, fitness gains from training are lost
- Variation definition: altering types of training to avoid boredom and maintain motivation to train
- Adaptation definition: changes to the body due to increased training loads
- Individual differences/needs definition: training should meet the needs of an individual
- Rest and recovery definition: to allow the body to recover and adapt.

Week 6 - Exercise Intensity

Heart rate: The number of times the heart beats per minute (bpm)
Maximum heart rate – also called HR max

Equation: HR max = 220 – age (years)
e.g. the maximum heart rate of a 25 year old is 195 bpm

Heart rate training zones:
The target zone recommended to improve cardiorespiratory fitness is 60%-85% of HR max (a person's maximum heart rate).

Working out target zones:
1. Calculate maximum heart rate (HR max) HR max = 220 – age (years)
2. Find upper training threshold = HR max X 0.85
3. Find lower training threshold = HR max X 0.60

e.g. 220 – 25 (age) = 195 bpm
195 x 0.85 = 165.75 = 166 bpm (upper training threshold)
195 x 0.60 = 117 bpm (lower training threshold)
Target zone = 117 bpm – 166 bpm

The RPE BORG Scale
The numbers on the scale represent the different levels of exercise intensity.
The BORG can be used to estimate a person's heart rate HR (bpm) = RPE x 10
e.g. a perform says they are working extremely hard and give a RPE scale rating of 19 their estimated heart rate is: HR (bpm) = RPE X 10

You can also estimate a RPE scale/Borg scale rating from a heart rate (bpm):
RPE scale = HR (bpm) ÷10.

Free weight training reps and 1 rep max strength 15RM for muscular endurance %:

- Muscular endurance - low load / high rep
  50-60% 1RM / 20 reps
- Elastic strength (power) -
  medium load / medium rep 75% 1RM / 12 reps
- Maximal strength - high load / low rep
  90% 1RM - 6 reps

Week 7 - Importance of fitness testing and requirements for administration of each fitness test

Reasons for fitness testing:

- gives baseline data for monitoring/improving performance
- can design training programmes based on test results
- determine if training programmes are working
- results can give a performer something to aim for
- provide goal setting aims.

Pre-test procedures:

- calibration of equipment
- complete informed consent
- complete Physical Activity Readiness Questionnaire (PAR-Q)
- participant pre fitness test check e.g. prior exercise participation.

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Reliability of test:

- consistency of results
- factors affecting reliability:
  - – calibration of equipment
  - – motivation of the participant
  - – conditions of the testing environment (inside versus outside conditions)
  - – experience of the person administering the test
  - – compliance with standardised test procedure.

Validity of results - this is affected by the administration and accuracy of the test by the testers.

Practicality:

- cost
- time taken to perform the test
- time taken to set up the test
- time taken to analyse data
- number of participants that can take part in the test at any time.

Week 8 - Fitness test methods for components of physical fitness	Week 9 - Fitness test methods for components of skill-related fitness
Aerobic endurance: ● Multi-stage fitness test, also known as the bleep test (20 metre distance) ○ Equipment - Tape measure, MSFT recording or app, speakers/CD player, cones. ● Yo-Yo test ○ Equipment - Tape measure, MSFT recording or app, speakers/CD player, cones. ● Harvard step test ○ Equipment - metronome, stopwatch, ruler/tape measure, bench. ● 12-minute Cooper run or swim. ○ Equipment - stopwatch, whistle, cones, tape measure. **Muscular endurance:** ● One-minute press-up ● One-minute sit-up ● Timed plank test ○ Equipment - stopwatch and a mat **Flexibility:** ● Sit and reach test ○ Equipment - Sit and reach box, ruler or tape measure, mat ● Calf muscle flexibility test ○ Equipment - Mat, wall ● Shoulder flexibility test. ○ Equipment - 2m rope, tape measure **Speed:** ● 30 metre sprint test ● 30 metre flying sprint. ○ Equipment - Cones, tape measure, stopwatch **Muscular strength:** ● Grip dynamometer ○ Equipment - handgrip dynamometer ● 1 Rep Max. ○ Equipment - fixed or free weights **Body composition:** ● Body Mass Index (BMI) ○ Equipment - scales, tape measure/stadiometer, calculator ● Bioelectrical Impedance Analysis (BIA) - ○ Equipment - BIA machine ● Waist to hip ratio. ○ Equipment - tape measure	Agility: ● Illinois agility run test ○ Equipment - Tape measure, cones, stopwatch ● T Test ○ Equipment - Tape measure, cones, stopwatch Balance: ● stork stand test ○ Equipment - Stopwatch, mat ● Y balance test ○ Tape measure/ruler, stopwatch, mat Coordination: ● Alternate-Hand Wall-Toss test ○ Tennis ball, stopwatch, tape measure, wall ● Stick flip coordination test ○ 60cm long stick, 2cm in diameter with tape or paint at one end. Power: ● Vertical jump test ○ Vertical test jump board or tape measure, chalk, wall ● Standing long/broad jump ○ Tape measure ● Margaria-Kalamen power test ○ Tape measure, scales, cone, stairs, stopwatch Reaction time: ● Ruler drop test ○ Metre ruler ● Online reaction time test (reaction test timer) ○ App, smartphone/tablet

Week 10 - Fitness training methods for physical components of fitness

Aerobic endurance:

- Continuous training – steady pace and moderate intensity for a minimum period of 30 minutes
- Fartlek training – the intensity of training is varied by running at different speeds and/or over different terrain
- Interval training – work period followed by a rest or recovery period
    - for aerobic endurance decrease the number/length of rest periods and decrease work intensity (compared to speed training)
- Circuit training – use of a number of stations/exercises completed in succession with minimal rest periods in between to develop aerobic endurance.

Flexibility:

- Static active – the performer applies internal force to stretch and lengthen the muscle
- Static passive – requires the help of another person or an object, e.g. wall to apply external force causing the muscle to stretch
- Proprioceptive Neuromuscular Facilitation (PNF) technique – the technique involves the use of a partner or immovable object, isometric muscle contractions to inhibit the stretch reflex.

Muscular endurance:

- Free weights and fixed resistance machines – high repetitions and low loads
- Circuit training – using body resistance exercises or weights with low loads and high repetitions.

Muscular strength training:

- Free weights and fixed resistance machines – high loads and low repetitions.

Speed:

- Acceleration sprints – pace is gradually increased from a standing or rolling start to jogging, then to striding, and then to a maximal sprint
- Interval training – work period followed by a rest or recovery period.
    - For speed short, high intensity work periods, increasing the number of rest periods and increasing work intensity (compared to aerobic endurance training)
- Resistance drills – hill runs, parachutes, sleds, bungee ropes, resistance bands.

Week 13 - Fitness training methods for skill-related components of fitness

Agility:

- Speed Agility and Quickness training (SAQ) – drills used to develop physical ability and motor skills.

SAQ training is a mixture of dynamic movements that aim to increase a performer's speed and agility, To train agility. you need to take part in sport-specific training which includes speed, agility and quickness (SAQ) training principles. Generally involves you sprinting and then changing direction over a set course. This could be dribbling the ball while sprinting around cones set up on the pitch or having teammates act as opponents and dribbling at speed around them while keeping control of the ball and keeping the ball away from them.

Power:

- Plyometrics – lunging, bounding, incline press-ups, barrier hopping and jumping.
- Eccentric muscle contraction is where the muscle lengthens when it contracts.
- Concentric muscle contraction is where the muscle shortens when it contracts.

Think of your muscle as an elastic band - the elastic band will fire further if you stretch it further back before letting it go. Plyometric training takes the muscle through an eccentric muscle action that lengthens and stretches the muscle before a powerful concentric muscle action. The shorter the time between the stretching phase and shortening, the more power can be generated. Plyometric training is any exercise that enables a muscle to reach maximum force in the fastest possible time. Over time, this makes the body create a faster rate of contraction, which will improve power.

Balance:

- Use of specific training exercises that require balancing on a reduced size base of support.

Coordination:

- Use of specific training exercises using two or more body parts together.

Reaction time:

- Use of specific training exercises to practise quick responses to an external stimulus.

Week 14 - The effects of long-term fitness training on the body systems

Aerobic endurance training:

- Adaptations to the cardiovascular and respiratory systems
- Cardiac hypertrophy
- Decreased resting heart rate
- Increased strength of respiratory muscles
- Capillarisation around alveoli.

Flexibility training:

- Adaptations to the muscular and skeletal systems
- Increased range of movement permitted at a joint
- Increased flexibility of ligament and tendons
- Increased muscle length.

Muscular endurance training:

- Adaptations to the muscular system
- Capillarisation around muscle tissues
- Increased muscle tone.

Muscular strength and power training:

- Adaptations to the muscular and skeletal systems
- Muscle hypertrophy
- Increased tendon and ligament strength
- Increased bone density.

Speed training:

- Adaptations to the muscular system
- Increased tolerance to lactic acid.

Week 15 - Fitness programming to improve fitness and sports performance

Personal information to aid fitness training programme design

● Aims – details of what they would like to achieve for the selected sport.
● Objectives – how they intend to meet their aims using an appropriate component of fitness and method of training.
● Lifestyle and physical activity history - personal information is collected to ensure that the training is safe. Includes medical history, physical activity and lifestyle

Fitness programme design

● Use personal information to aid training programme design.
● Selection of appropriate training method/activity for improving/maintaining the selected components of physical and/or skill-related fitness.
● Application of the FITT principles and additional principles of training.

Motivational techniques for fitness programming

Definition of motivation – the internal mechanisms and external stimuli that arouse and direct behaviour.

Types of motivation:

- Intrinsic - a person is motivated by internal factors not external rewards.
- Extrinsic - a person is motivated by external rewards such as prize money or a trophy for taking part or doing well.

Personal goals:

Specific, measurable, achievable, realistic, time-related, exciting, recorded (SMARTER):

- short-term goals (set over a short period of time, between one day and one month)
- long-term goals (what they want to achieve in the long term, and the best way of doing this).

Influence of goal setting on motivation:

Provide direction for behaviour
Maintain focus on the task in hand.

Benefits of motivation on the sports performer:

- Increase participation
- Maintain training and intensity
- Increased fitness
- Improved performance.

STEP 2: CREATE CUES

What: Reduce your notes to just the essentials.

What: Immediately after class, discussion, or reading session.

How:

- **Jot down key ideas, important words and phrases**
- **Create questions that might appear on an exam**
- **Reducing your notes to the most important ideas and concepts improves recall. Creating questions that may appear on an exam gets you thinking about how the information might be applied and improves your performance on the exam.**

Why: Spend at least ten minutes every week reviewing all of your previous notes. Reflect on the material and ask yourself questions based on what you've recorded in the Cue area. Cover the note-taking area with a piece of paper. Can you answer them?

STEP 1: RECORD YOUR NOTES

What: Record all keywords, ideas, important dates, people, places, diagrams and formulas from the lesson. Create a new page for each topic discussed.

When: During class lecture, discussion, or reading session.

How:

- **Use bullet points, abbreviated phrases, and pictures**
- **Avoid full sentences and paragraphs**
- **Leave space between points to add more information later**

Why: Important ideas must be recorded in a way that is meaningful to you.

STEP 3: SUMMARISE & REVIEW

What: Summarise the main ideas from the lesson.
What: At the end of the class lecture, discussion, or reading session.
How: In complete sentences, write down the conclusions that can be made from the information in your notes.
Why: Summarising the information after it's learned improves long-term retention.

WEEK 2: Cornell Notes (Homework task 1)

Date / /	**Topic: Components of Physical Fitness**	Revision guide page:

links **Questions**	**Notes**

Summary

WEEK 2: Exam Question (Homework task 2)

Date……

Question: Identify two physical components of fitness that are required for a midfielder in football and explain how they benefit their performance in a match. (4)

Answer:

WEEK 2: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 3: Cornell Notes (Homework task 1)

Date / /	**Topic: Components of Skill Related Fitness**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 3: Exam Question (Homework task 2)

Date……

Question: Identify two skill components of fitness that are required for a basketballer and explain how they benefit their performance in a match. (4)

Answer:

WEEK 3: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 4: Cornell Notes (Homework task 1)

Date / /	**Topic: The importance of fitness for successful participation in sport**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 4: Exam Question (Homework task 2)

Date……

Question: Identify a component of fitness that a marathon runner would require, and compare this to a component of fitness a 100m sprinter would require. (4)

Answer:

WEEK 4: Exam Question review and improvement (Classwork)

Question:

Answer:

Week 5: Cornell Notes (Homework task 1)

Date / /	**Topic: Principles of Training**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 5: Exam Question (Homework task 2)

Date……

Question: Identify and explain how an athlete might use each part of FITT to improve their running time. (4)

Answer:

WEEK 5: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 6: Cornell Notes (Homework task 1)

Date / /	**Topic: Exercise Intensity**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 6: Exam Question (Homework task 2)

Date……

Question: Jodie is 28 years old. Work out her maximum heart rate, then her upper and lower training thresholds. Show your workings out. (3)

Answer:

WEEK 6: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 7: Cornell Notes (Homework task 1)

Date / /	**Topic: Importance of fitness testing and requirements for administration of each fitness test**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 7: Exam Question (Homework task 2)

Date……

Question: Identify and explain the four pre-test procedures required to complete before a fitness test. (4)

Answer:

WEEK 7: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 8: Cornell Notes (Homework task 1)

Date / /	**Topic: Fitness test methods for components of physical fitness**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 8: Exam Question (Homework task 2)

Date……

Question: Gymnasts require a wide range of movement for their events. Identify what flexibility fitness tests would be beneficial and the equipment required. (4)

Answer:

WEEK 8: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 9: Cornell Notes (Homework task 1)

Date / /	**Topic: Fitness test methods for components of skill-related fitness**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 9: Exam Question (Homework task 2)

Date……

Question: Table tennis requires quick reactions for their games. Identify what reaction time fitness tests would be beneficial and the equipment required. (4)

Answer: _____

WEEK 9: Exam Question review and improvement (Classwork)

Question:

Answer: _____

WEEK 10: Cornell Notes (Homework task 1)

Date / /	**Topic: Fitness training methods for physical components of fitness**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 10: Exam Question (Homework task 2)

Date……

Question: 100m sprinters require speed to complete their race, identify and explain 3 training methods a 100m sprinter could use. (6)

Answer: _____

WEEK 10: Exam Question review and improvement (Classwork)

Question:

Answer: _____

WEEK 11: Assessment Week Revision (Homework task 1)

Date / /	Topic Mock exam revision

WEEK 11: Assessment Week Revision (Homework task 2)

Date / /	**Topic: Mock exam revision**

WEEK 12: Assessment Week Revision (Homework task 1)

Date / /	**Topic: Mock exam revision**

WEEK 12: Assessment Week Revision (Homework task 2)

Date / /	**Topic: Mock exam revision**

WEEK 13: Cornell Notes (Homework task 1)

Date / /	**Topic: Fitness training methods for skill-related components of fitness**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 13: Exam Question (Homework task 2)

Date……

Question: Long jumpers require power to complete their event, identify and explain how they could complete plyometric training to benefit their event. (4)

Answer: _____

WEEK 13: Exam Question review and improvement (Classwork)

Question:

Answer: _____

WEEK 14: Cornell Notes (Homework task 1)

Date / /	**Topic: The effects of long-term fitness training on the body systems**	Revision guide page

links **Questions**	**Notes**

Summary

WEEK 14: Exam Question (Homework task 2)

Date……

Question: Identify and explain the long term muscular strength training effects a weight lifter would benefit from? (4)

Answer: _____

WEEK 14: Exam Question review and improvement (Classwork)

Question:

Answer: _____

WEEK 15: Cornell Notes (Homework task 1)

Date / /	**Topic: Fitness programming to improve fitness and sports performance**	Revision guide page

link **Questions**	**Notes**

Summary

WEEK 15: Exam Question (Homework task 2)

Date……

Question: Identify and give examples of the two types of motivation a netball player may use. (4)

Answer: _____

WEEK 15: Exam Question review and improvement (Classwork)

Question:

Answer: _____