Scott
Scott Medical and Healthcare College

Spring Term
Term 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 Catch Up	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
Geography
History
Spanish

Option B
Geography
Psychology
Health and Social Care

Option C
Childcare
Drama
Psychology
Sport

Half Term 3 (6 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 1 6th January 2025	**Cornell Notes on:** Components of fitness	**Question**: Simon competes in swimming and requires aerobic endurance and flexibility for their sport. Explain why reaction time and muscular strength is also needed for their sport? (6)
Week 2 13th January 2025	**Revision Cards on:** Components of fitness	**Question**: Mark plays rugby and requires power and muscular strength for their sport, identify and explain two other components of fitness Mark may use in rugby? (6)
Week 3 20th January 2025	**Cornell Notes on:** Principles of training	**Question**: Lucy would like to increase her training schedule, how can she use the principles of training to achieve this? (4)
Week 4 27th January 2025	**Revision Cards on:** Exercise intensities	**Question:** Your client is a 45 year old male, work out their upper and lower training thresholds in bpm. (3)
Week 5 3rd February 2025	**Cornell Notes on:** Exercise intensities	**Question**: Sally is a weightlifter who wants to improve her maximal strength, her current 1 rep max is 50kg. Calculate the weight she needs to be lifting for 6 reps. (3)
Week 6 10th February 2025	**Revision Cards on:** Testing and Training	**Question**: Which test would be most appropriate to measure power for a swimmer? (2)

Half Term 4 (6 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 7 24th February 2025	**Cornell Notes on:** Testing and Training	**Question**: Bethany is a rower, identifying and explaining two fitness tests she could complete for her sport. (6)
Week 8 3rd March 2025	**Mock Exams**	**Mock Exams**
Week 9 10th March 2025	**Mock Exams**	**Mock Exams**
Week 10 17th March 2025	**Revision Cards on:** Muscles and Bones	**Question**: Bethany wants to improve her muscular and aerobic endurance, identify and explain two training methods she could undertake to improve. (6)
Week 11 24th March 2025	**Cornell Notes on:** Long term effects of exercise	**Question**: Kayleigh is a diver, explaining the long term effects of flexibility training that would benefit her sport. (4)
Week 12 31st March 2025	**Revision Cards on:** Long term effects of exercise	**Question**: Richard is a marathon runner, explaining the long term effects of aerobic endurance training that would benefit his sport. (4)

Knowledge Organiser

Week 1&2 - Components of Fitness

Physical fitness:

- **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.
- **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 fitness:

- **Coordination:** – the ability to move two or more body parts at the same time smoothly and efficiently, to allow effective application of technique.
- **Agility:** the ability to change direction quickly to allow performers to outmanoeuvre an opponent.
- **Reaction time:** 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.
- **Balance:** the ability to maintain the centre of mass over a base of support.
    1. Static Balance – a still balance like a handstand
    2. Dynamic Balance – a moving balance like a cartwheel
- **Power**: the product of speed and strength to allow for explosive movements in sport.

Week 3 - 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 and/or their sports performance.

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 not sufficient to cause adaptation, training effects are reversed.
- Variation: it is important to vary the training regime to avoid boredom and maintain enjoyment
- Adaptation:definition: how the body reacts to training loads by increasing its ability to cope with those loads. Adaptation occurs during the recovery period after the training session is completed.
- Individual differences/needs: definition: the programme should be designed to meet individual training goals and needs.
- Rest and recovery are required so that the body can recover from the training and to allow adaptation to occur

Week 4&5 - 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 %:

- 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

Rating	Perceived Exertion
6	No exertion
7	Extremely light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

Week 6&7 - Testing and Training

Type	COF	Test	Method of training
Physical	Muscular Endurance	-1 minute sit up/press up (Reps/min) -Timed plank test	Circuit training / free weight training
	Aerobic Endurance	-20m multi-stage fitness test (also known as the bleep test) -Yo-Yo test -Harvard step test -12-minute Cooper run or swim.	Continuous / fartlek / interval
	Muscular Strength	-Hand grip dynamometer test (KgW) -1 Rep max	Free weight training
	Speed	-30 metre sprint test -30 metre flying sprint	Interval / acceleration sprints / resistance drills
	Body Composition	-Body mass index (BMI) / -Bioelectrical impedance analysis (BIA) (%) -Waist to hip ratio.	
	Flexibility	-Sit and reach test (cm) -Calf muscle flexibility test -Shoulder flexibility test.	Static stretching / ballistic / PNF
Skill	Agility	-Illinois agility test (m/s) -T Test	SAQ
	Power	-Vertical jump test (kgm/s) -Standing long/broad jump -Margaria-Kalamen power test.	Plyometric training
	Balance	-Stork stand test -Y balance test.	Reducing base of support size
	Reaction time	-Ruler drop test -Online reaction time test (reaction test timer).	Response to external stimulus

	Coordination	-Alternate-Hand Wall-Toss test -Stick flip coordination test.	Using 2 or more body parts

Equipment required for tests:

- 1 Minute Sit-up and Press-up Test/ Time plank: mat / stopwatch
- Multistage Fitness Test / Yo-yo test: Test recording / speakers / tape measure / cones
- Harvard Step Test: Steps / stopwatch / metronome
- 12 min cooper test - Track/pool / stopwatch
- Handgrip Dynamometer test: Grip Dynamometer
- 1 Rep max - Weights
- 30 Meter Sprint Test/flying sprint: Tape measure / stopwatch / tape or cones
- Body Mass Index (BMI) Test: Scales / tape measure or stadiometer
- Bioelectrical Impedance Analysis (BIA): BIA analyser / mat
- Sit and Reach Test: Tape measure / box / or sit and reach box / mat
- Calf flexibility - Wall / ruler
- Shoulder flexibility - rope / measuring tape
- Illinois Agility Test / T test: Tape measure / cones / stopwatch
- Vertical Jump Test: Chalk / tape measure / wall / scales(to work out power)
- Standing long broad jump: tape measure
- Margaria-Kalamen power test: Staircase / cones / measuring tape
- Stork balance- stopwatch
- Y Balance - cones / stopwatch
- Ruler drop - Ruler
- Online reaction test - online test
- Wall toss - cone / tape measure / tennis ball
- Stick flip - 3 Sticks 60cm long x 2cm diameter with tape or paint at one end

Week 10 - Muscles and Bones

Muscles			
Upper Body (waist up)		Lower Body (waist down)	
Name	Location	Name	Location
Trapezius	Neck down	Gluteus Maximus	Below lower back
Deltoid	Top of shoulder	Quadriceps	Front of thigh
Pectoralis Major	Chest	Hamstrings	Back of thigh
Biceps	Front of upper arm	Gastrocnemius	Lower back leg
Triceps	Back of upper arm	Soleus	Lower back leg
Abdominals	Middle of stomach	Tibialis Anterior	Lower front leg
External Obliques	Side of stomach		
Latissimus Dorsi	Lower back		

Bones			
Upper Body (waist up)		Lower Body (waist down)	
Name	Location	Name	Location
Cranium	Head	Pelvis	Hips
Clavicle	Collar bone	Femur	Thigh
Scapular	Shoulder	Patella	Knee Cap
Sternum	Middle of chest	Tibia	Front of lower leg
Ribcage	Chest	Fibula	Side of lower leg
Humorous	Upper arm	Tarsals	Ankle
Radius	Lower arm	Metatarsals	Foot and toes
Ulna	Lower arm	Phalanges	End of toes

Week 11&12 - The effects of long-term fitness training on the body systems

Aerobic endurance training:
o adaptations to the cardiovascular and respiratory systems
o cardiac hypertrophy
o decreased resting heart rate
o increased strength of respiratory muscles
o capillarisation around alveoli.

Flexibility training:
o adaptations to the muscular and skeletal systems
o increased range of movement permitted at a joint
o increased flexibility of ligament and tendons
o increased muscle length.

Muscular endurance training:
o adaptations to the muscular system
o capillarisation around muscle tissues
o increased muscle tone.

Muscular strength and power training:
o adaptations to the muscular and skeletal systems
o muscle hypertrophy
o increased tendon and ligament strength
o increased bone density.

Speed training:
o adaptations to the muscular system
o increased tolerance to lactic acid.

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 1: Cornell Notes (Homework task 1)

Topic: Components of fitness	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 1: Exam Question (Homework task 2)

Question: Simon competes in swimming and requires aerobic endurance and flexibility for their sport. Explain why reaction time and muscular strength is also needed for their sport? (6)

Answer:

WEEK 1: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 2: Exam Question (Homework task 2)

Question: Mark plays rugby and requires power and muscular strength for their sport, identify and explain two other components of fitness Mark may use in rugby? (6)

Answer:

WEEK 2: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 3: Cornell Notes (Homework task 1)

Topic: Principles of training	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 3: Exam Question (Homework task 2)

Question: Lucy would like to increase her training schedule, how can she use the principles of training to achieve this? (4)

Answer:

WEEK 3: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 4: Exam Question (Homework task 2)

Question: Your client is a 45 year old male, work out their upper and lower training thresholds in bpm. (3)

Answer:

WEEK 4: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 5: Cornell Notes (Homework task 1)

Topic: Exercise intensities	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 5: Exam Question (Homework task 2)

Question: Sally is a weightlifter who wants to improve her maximal strength, her current 1 rep max is 50kg. Calculate the weight she needs to be lifting for 6 reps. (3)

Answer:

WEEK 5: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 6: Exam Question (Homework task 2)

Question: Which test would be most appropriate to measure power for a swimmer? (2)

Answer:

WEEK 6: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 7: Cornell Notes (Homework task 1)

Topic: Testing and Training	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 7: Exam Question (Homework task 2)

Question: Bethany is a rower, identifying and explaining two fitness tests she could complete for her sport. (6)

Answer: _____

WEEK 7: Exam Question review and improvement (Classwork)

Question:

Answer: _____

WEEK 8: Assessment Week Revision (Homework task 1)

Topic:

WEEK 8: Assessment Week Revision (Homework task 2)

Topic:

WEEK 9: Assessment Week Revision (Homework task 1)

Topic:

WEEK 9: Assessment Week Revision (Homework task 1)

Topic:

WEEK 10: Cornell Notes (Homework task 1)

Topic: Muscles and Bones	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 10: Exam Question (Homework task 2)

Question: Bethany wants to improve her muscular and aerobic endurance, identify and explain two training methods she could undertake to improve. (6)

Answer:

WEEK 10: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 11: Cornell Notes (Homework task 1)

Topic: Long term effects of exercise	Revision guide page:

Links **Questions**	**Notes**

Summary

WEEK 11: Exam Question (Homework task 2)

Question: Kayleigh is a diver, explaining the long term effects of flexibility training that would benefit her sport. (4)

Answer:

WEEK 11: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 12: Exam Question (Homework task 2)

Question: Richard is a marathon runner, explaining the long term effects of aerobic endurance training that would benefit his sport. (4)

Answer:

WEEK 12: Exam Question review and improvement (Classwork)

Question:

Answer:

Week 2

Revision Card on Components of fitness	**Answers**

Week 4

Revision Card on Exercise intensities	**Answers**

Week 6

Revision Card on Testing and Training	**Answers**

Week 10

Revision Card on Muscles and Bones	**Answers**

Week 12

Revision Card on Long term effects of exercise	**Answers**