

Personal exercise programme (PEP) authentication sheet

Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Physical Education		1PE0/04
Centre name: [REDACTED]		Centre number: [REDACTED]
Candidate name: [REDACTED]		Candidate number: [REDACTED]
Activity	Mark awarded	Comments
		[NB: Comment box expands as you start entering text]
PEP	20/20	
Total	20/20	

Word count [NB: The specification requires candidate to produce a maximum word count of 1500]	Word count: 1500
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Teacher declaration

I declare that the work submitted for assessment has been carried out without assistance other than that which is acceptable according to the rules of the specification.

Assessor name:	[REDACTED]		
Assessor signed:	[REDACTED]	Date:	22/2/2023

Candidate declaration

I certify that the work submitted for this assessment is my own. I have clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.

Candidate signed:	[REDACTED]	Date:	14/03/23
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Additional candidate declaration

By signing this additional declaration you agree to your work being used to support Professional Development, Online Support and Training of both Centre-Assessors and Pearson Moderators. If you have any concerns please email teachingPEandSport@pearson.com

Candidate signed:	[REDACTED]	Date:	14/03/23
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Strand	Level 1 <i>Limited</i>	Level 2 <i>Some Attempts</i>	Level 3 <i>Good</i>	Level 4 <i>Very Good</i>	Level 5 <i>Excellent</i>
1.	Collect initial fitness and performance data: pre-PEP fitness tests data covering a range of components of fitness, relevant and specific to the candidates: selected sporting performance whilst also collecting performance related data that allows the possibility of realistic and measurable improvement. Interpret and analyse initial fitness test results for performance: using appropriate data (which must be from initial fitness test results and could also consider initial performance data gathered)				
	1 Limited or little interpretation of fitness test results using some data.	2 Some attempt at interpretation and analysis of fitness test results using some data, but with errors that may impact analysis.	3 Good interpretation and analysis of fitness test results using appropriate data, with some errors that have insignificant impact on the analysis.	4 Very good interpretation and analysis of fitness test results using appropriate data, with one or two minor errors not significantly affecting the analysis	5 Excellent and thorough interpretation and analysis of fitness test results using appropriate data.
2.	Select and justify a component of fitness: (weakness to improve) with statement of aim(s) intrinsically linked to bring about the best improvement in the candidates selected element of their sporting performance. Application of SMART targets: linked to fitness and performance, justifying why their targets are SMART and how they impact on the candidates selected element of their sporting performance. Select and justify a training method: an appropriate method of training to achieve the aim to improve the candidate's component of fitness choice. Reasons for its selection and starting training intensities must be justified making it clear why this is the best and most suitable method to use to improve their future performance. Application of principles of training: an explanation of how they initially intend to apply the relevant training principles to their selected training method to help them achieve their SMART targets. Adaptations to the training plan should be applied as the plan progresses and be influenced by the daily or weekly evaluations of the training sessions.				
	1 Limited evaluation (mainly descriptive) resulting in inappropriate selection of training method(s) and little application of SMART targets and principles of training to meet performance goal(s).	2 Some attempts at evaluation, with weak justification for training method(s) chosen, and attempts at applying SMART targets and principles of training to meet performance goal(s), with errors of judgement affecting the quality of the evaluation.	3 Good evaluation with appropriate training method(s) selected and explained, and application of SMART targets and principles of training to meet performance goal(s), with some errors of judgement that have insignificant impact on the evaluation.	4 Evaluation with appropriate training method(s) selected and explained, and application of SMART targets and principles of training to meet performance goal(s), with few errors of judgement not significantly affecting the evaluation.	5 Evaluation with appropriate training method(s) selected and justified, and application of SMART targets and principles of training to meet performance goal(s).
3.	Collecting and drawing up post-PEP fitness test data: relevant fitness tests, and performance data as at the start of the PEP. Compare pre- and post-PEP fitness test results for performance: all data should demonstrate the differences in fitness levels and performance pre and post PEP Justify differences in data: discuss reasons for any differences or similarities in the results and what the results mean in terms of the candidate's SMART targets. Show evidence which informs the discussion on results.				
	1 Limited comparison, interpretation and/or analysis of differences and/or similarities between fitness test results and little/no supporting evidence used, with many significant errors of judgement / inaccuracies.	2 Attempts to compare and interpret the fitness test results, with some differences and/or similarities analysed in places and some supporting evidence used, but with many errors of judgement/inaccuracies.	3 Fitness test results are compared and interpreted, and the differences and/or similarities are analysed, and sufficient supporting evidence used, but with some errors of judgement/inaccuracies.	4 Fitness test results are compared and interpreted, and the differences and/or similarities are analysed with satisfactory supporting evidence, but with some minor errors of judgement/inaccuracies.	5 Fitness test results are compared and interpreted, and the differences and/or similarities identified and analysed, and reasons for them justified, with ample supporting evidence.
4.	Evaluate application of methods of training, SMART targets and principles of training Consideration as to whether the selected method of training, SMART targets and principles of training worked as intended should be discussed and whether they were well applied, and how they impacted overall on the candidate's selected element of their sporting performance. Training plans or record sheets should be referred to within the discussion. Recommendations: based on their evaluation of these factors they should then be able to identify what aspects of their programme should be changed and be able to justify the recommendations that they state that will improve future training plans and performance.				
	1 Limited evaluation of the application of the method(s) of training, SMART goals and principles of training, and no recommendation for improving future training and performance.	2 Some attempts at evaluation of the application of the method(s) of training, SMART goals and principles of training, with some attempt at recommendation for improving future training and performance, but with significant errors.	3 Good evaluation of the application of the method(s) of training, SMART goals and principles of training, with sufficient detail/depth, and appropriate recommendation(s) to improve future training and performance.	4 Well-argued evaluation of the application of the method(s) of training, SMART goals and principles of training, in satisfactory detail and depth, with justified recommendations to improve future training and performance.	5 Sophisticated evaluation of the application of the method(s) of training, SMART goals and principles of training, in good detail and depth, with well justified recommendations to improve future training and performance.
5.	Candidates must produce a succinct and coherently structured PEP which should be written as continuous prose. This means the planning (analysis) and evaluation sections should be covered with appropriate content and detail; that appropriate, subject specific terminology should be used; and that the PEP is succinct enough to be within the 1500-word count.				
	1 Lack of coherence and structure, with inappropriate and inaccurate terminology throughout.	2 Attempts at coherence and structure, with use of appropriate terminology in places but inconsistent and with some errors of judgement.	3 Good coherence and structure, with appropriate terminology used, but some errors of judgement/accuracy with no significant impact on the piece.	4 Very good coherence and structure, with appropriate terminology used throughout, but with a few minor errors.	5 Excellent coherence and structure with appropriate terminology used consistently, with few minor, if any, errors.

Strand	Mark
1	20
2	20
3	20
4	20
5	20
Total:	100

Total mark: 100

Divided by 5: 20

Rounded: 20

Overall Level: 20

Using the GCSE PE PEP Marking Grid

All GCSE student work should be marked using the assessment grids in the accredited specifications.

The Marking Grid is a support tool to help you make accurate judgements about student work.

Step by step instructions

1. Mark the PEP, taking each Strand at a time.
2. Follow the Mark Grid across the chart (from left to right) until the work exhibits characteristics reflected in the descriptors in the levels from 1 to 5.
3. Choose those descriptors that apply to the work (not all of them will). Identify the mark within that level that best demonstrates the evidence in the work and circle that mark.
4. Identifying the mark in the relevant boxes will give you a clear visual picture (like a graph) of the student's performance for each Strand (see the worked example below).
5. Once completed transfer the marks into the 'Strand/Mark' grid at the bottom. Calculate the total.
6. Transfer this total mark into the 'Total mark' on the left-hand column, divide by 5 (and, if necessary, round this sum).
7. Identify and write down the overall Level.

A worked example

In Strand 1, a GCSE student's PEP shows **good interpretation and analysis** of the fitness test data with evidence at the very top of the mark range in Level 3 (12 marks). In Strand 2 the evidence showed they were able to **evaluate and justify** their training methods, but there were a few areas where they made small errors and achieved a Level 4 (14 marks). The Strand 3 mark showed their weakest area, achieving 10 marks at level 3, because they did not fully develop their **interpretations**. Strand 4, again evidenced to be at the top of Level 3, contained well-argued **evaluation** of the application of the method(s) of training, SMART goals and principles of training, scoring 12 marks. The final Strand, Strand 5, contained evidence that put them at the bottom of Level 4, contained very **good coherence and structure** but lacked the appropriate terminology and could only score 13 marks.

Strand	Level 1	Level 2	Level 3	Level 4	Level 5
1. Interpretation and analysis Interpret and analyse the data to identify the characteristics of the student's performance. Use the data to identify the student's strengths and weaknesses. Use the data to identify the student's areas for improvement. Use the data to identify the student's overall performance.	1.1. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	1.2. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	1.3. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	1.4. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	1.5. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.
2. Evaluation and justification Evaluate and justify the student's performance. Use the data to identify the student's strengths and weaknesses. Use the data to identify the student's areas for improvement. Use the data to identify the student's overall performance.	2.1. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	2.2. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	2.3. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	2.4. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	2.5. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.
3. Interpretation and analysis Interpret and analyse the data to identify the characteristics of the student's performance. Use the data to identify the student's strengths and weaknesses. Use the data to identify the student's areas for improvement. Use the data to identify the student's overall performance.	3.1. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	3.2. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	3.3. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	3.4. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	3.5. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.
4. Evaluation and justification Evaluate and justify the student's performance. Use the data to identify the student's strengths and weaknesses. Use the data to identify the student's areas for improvement. Use the data to identify the student's overall performance.	4.1. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	4.2. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	4.3. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	4.4. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	4.5. The student has evaluated and justified the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.
5. Interpretation and analysis Interpret and analyse the data to identify the characteristics of the student's performance. Use the data to identify the student's strengths and weaknesses. Use the data to identify the student's areas for improvement. Use the data to identify the student's overall performance.	5.1. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	5.2. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	5.3. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	5.4. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.	5.5. The student has identified the data and has identified the characteristics of the student's performance. The student has identified the student's strengths and weaknesses. The student has identified the student's areas for improvement. The student has identified the student's overall performance.

Strand	Mark
1	12
2	14
3	10
4	12
5	13
Total:	61

Total mark:	61
Divided by 5:	12.2
Rounded:	12
Overall Level:	3

This student's overall score, across the 5 Strands, was 61. This is then divided by 5 to give an average score across the Strands. This value is rounded to place them in the correct overall Level, which in this case is Level 3. They are a high Level 3, with elements of Level 4.

Personal Exercise Programme



Name:



Sport: **Athletics: 100m sprint**

Candidate number:



Centre number:



Word count: **1500**

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Aim and planning

The aim of my PEP is to optimise my performance in the 100m sprint.

clear performance aim

I completed a PAR-Q to ensure that I was fully fit to participate in an exercise programme.

(Appendix 1)

After recording my 100m time and split times, I ran the 100m in 12.85sec (appendix 3). Looking at my split times, my strength was my **speed** because the final 3 splits were significantly faster, with an average time of 2.41s per split. However, my first 20m split was significantly slower (3.31s). Implying that **power** is my weakness. Since power is speed multiplied by **muscular strength**, we know that I'm unable to exert greater force in my quadriceps, hip flexors and gastrocnemius to accelerate through the first 20m faster despite my "excellent" reaction time.

thorough data analysis of performance data

To identify my **strengths** and **weaknesses** correlated to the 100m, I performed a series of **baseline** tests (Appendix 2), revealing that my **power** (65cm vertical jump test) and **speed** (4.18s 30m sprint) were both "above average" compared to normative data. As well as my **reaction time** being "excellent" (6.5cm ruler drop test). Also, revealing that my **muscular strength** was "excellent" (60 hand grip dynamometer test). However, this isn't specific to 100m sprint as it measures power within the forearms. Whereas power is derived from contractions within the quadriceps, hip flexors, gastrocnemius, and gluteus maximus when sprinting. Therefore, a more specific test for muscular strength would be the one rep max squat and deadlift (Appendix 11). Speed corresponds with the 100m sprint as it's important to cover the distance in as little time as possible. Increasing **power** and **reaction time** would be beneficial to quickly reacting and quickly applying **muscular strength** (onset of movement) upon the starting block at speed, to accelerate forward when the gun is fired (presentation of the stimulus).

thorough data comparison completed

cof justified and discussed

Improving **speed** would be advantageous to improve my 100-metre time. However, training **power** will better impact my acceleration at the start of the race, my weakness, as well as my score in the vertical jump test, impacting both my **SMART** targets. (Appendix 4)

cof selected and justified

SMART Targets:

1. To reduce my 100m time from 12.85s to 12.35s in 6 weeks
2. To improve my power in vertical jump test from 65cm (above average) to 70cm (excellent) over my 6 weeks.

targets are relevant to overall performance aim

Carrying out and monitoring

I decided **circuit training** would be my **method of training** because it can be made sports specific by containing power-based stations, to specifically target my **aim**. Furthermore, both **weight** and **plyometric** training can be incorporated in the circuit to effectively develop **power**. Although circuit training can develop all components of fitness, components such as **cardio-vascular fitness** are not relevant to the 100m and don't need to be trained. Plyometric stations involve high impact exercises that focus on improving power by combining speed (explosive movements) and **strength** (bodyweight). As for weight training stations, I will be working **anaerobically**, by incorporating **low repetitions** but with **high weights**, to focus on **muscular strength**. Developing **type IIX** muscle fibres will help improve **power**, optimising my acceleration at the beginning of the 100m.

Furthermore, applying **principles of training** (Appendix 5) and an adequate **warm-up** (Appendix 6) to my PEP will ensure that training is effective and doesn't result in **injury**, leading to positive improvements in my power and 100m time.

I created **macro**, **meso** and **micro** cycles (Appendix 7, 8, 9) so that I am organised for my training sessions.

plans all very clear
training records all present
in appendix

Analysis and Evaluation

performance and
fitness data results
with % calculations

When comparing my post PEP fitness results and notational analysis data, it is evident that within the 6-week programme, my score in the vertical jump test has increased by 7cm, 10.8% (Appendix 10a) and is now "excellent" compared to normative data. My improvement in power has a direct correlation to improvement in muscular strength and 100m time. Seen in my 27% increase in the squat one rep max (Appendix 11) and 4.12% decrease in 100m time (Appendix 10b). Also correlating to my decrease in time over the first 10m (Appendix 10c). Conversely, after carrying out **post-PEP fitness tests** for all **components of fitness** (Appendix 2), components of fitness such as **cardiovascular fitness** and **coordination** have remained practically the same. This is because my training was specific to developing **power**, where there was notable improvement. My set targets were both **realistic** and **achievable**, because they were challenging enough to **motivate** me during training. However, they were still accomplishable as I had met both SMART targets (Appendix 4) by applying principles of training and having strong **task adherence**. This clear statement that I had achieved my target also suggests that both my targets are **measurable**. Meaning that my **SMART** targets have worked as intended by applying the 6-week time period, making it **time bound**, allowing me to monitor progress pre, mid and post PEP.

Moreover, as my strength and power increased throughout my PEP, applying **progressive overload** ensured that sessions were still sufficiently challenging. Using progressive overload tailored to my **individual needs** as my fitness levels improve, carried out by increasing the **intensity** of my sessions. This was implemented by gradually increasing the weight used in **resistance training** stations as well as the reps performed in plyometric stations, while still staying the **anaerobic threshold** of training.

Throughout the first 2 weeks of my PEP, the **frequency** of my circuit training was 3 times a week. However, with a work to rest ratio of 7:0, I was **overtraining**, not allowing my fast twitch **type IIX muscle fibres** enough recovery time. This resulted in increased muscle **fatigue**, shown in my mid PEP performance analysis (Appendix 10b, 10c), seeing just a 2cm (3.1%) improvement in the vertical jump test and a 3.5% increase in 100m time. Therefore, to reduce the chance of an injury and further **reversibility**, in week 3 (Appendix 13g) I reduced the **frequency** of my circuit training to twice per week, allowing my **type IIX** muscles fibres more time to rest and recover, reducing **muscle fatigue**. Furthermore, I also changed the circuit plan from session number 7 (Appendix 13g) to the end of my PEP, this ensured that my sessions contained the movement of weight at speed, to specifically target power in the legs. As well as ensuring the **time** of my session was 55 minutes, so I could finish all exercises in our given time. These two decisions of applying **principles of training** positively impacted my performance in both the vertical jump test (Appendix 10a) and the 100m sprint (Appendix 10b). In which my score in the **vertical jump test** increased by a further 7.5% (5cm) putting myself into the '**excellent**' category, compared to normative data as well as a 7.4% decrease in time when comparing my mid and post PEP 100m notational analysis. From this we can infer that at first my PEP was ineffective, however, after analysing mid PEP data and altering my weekly training plan by considering **principles of training** my PEP had become effective in improving my power and time in the 100m.

NOT justification
linked correctly to performance and of

- Through achieving both of my SMART (Appendix 4) targets we can infer that **circuit training** was the correct **method of training**. It developed my **type IIX** muscle fibres exerting a large intensive force for fast, powerful movements. Applying weight training to my circuit plan helped develop **power** through applying force at speed against a resistance. Furthermore, incorporating plyometrics improved my strength and speed (Appendix 2), correlating to my improvement in power (Appendix 10a) and time over the first 10m of the sprint (Appendix 10C). This is because power is the product of combining strength and speed. Hence, I was able to achieve my aim of increased power.

data comparison linked to performance

Although my aim was **specific** to improving power, unintentionally my **balance** improved significantly (Appendix 12). This allows me to maintain proper body position and technique during the acceleration phase. Shown in my 15.96s improvement in the **stork stand**. However, because there was no major improvement in **cardiovascular fitness** it implies that my circuit has worked as intended, specifically improving power by working **anaerobically** rather than **aerobically**. This improved power was utilised to exert more force and accelerate quicker from the start position. Accompanied with my 'Excellent' reaction time, the increased power allowed me to accelerate to the drive phase in less time so I can reach my maximum velocity quicker. This was clearly validated in my 2.11% decrease in time within my first 20m split, from 3.31s to 3.24s.

excellent use of data

As future recommendations, I would consider my training days. Instead of consecutive days, it would be beneficial to consider rest days between training to reduce exercise-induced **muscle fatigue**. Furthermore, allow my body to restore necessary nutrients such as **glucose**, allowing muscles to continually respire anaerobically. As well as allowing muscles more time to recover prior to the next day of training, so that they are ready to exert maximum force and allow **adaptations of training** to occur. Moreover, to apply more **progressive overload** I would increase the time of sessions, this allows me to include more stations in my circuit to further improve my power and 100m time.

relevant and appropriate recommendations

excellent use of terminology throughout

Linking fitness and performance as well as correct and appropriate theory reinforcement.

Appendix

Appendix 1:

**Physical Activity Readiness
Questionnaire (PAR-Q)**

PAR-Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Do you feel pain in your chest when you do physical activity?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. In the past month, have you had chest pain when you were not doing physical activity?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Do you lose your balance because of dizziness or do you ever lose consciousness?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Do you know of any other reason why you should not do physical activity?

If you answered YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want — as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- Find out which community programs are safe and helpful for you.

NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- start becoming much more physically active — begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal — this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

DELAY BECOMING MUCH MORE ACTIVE:

- If you are not feeling well because of a temporary illness such as a cold or a fever — wait until you feel better; or
- If you are or may be pregnant — talk to your doctor before you start becoming more active.

PLEASE NOTE: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

Informal Use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

No changes permitted. You are encouraged to photocopy the PAR-Q but only if you use the entire form.

NOTE: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

"I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction."

NAME [redacted]

SIGNATURE [redacted] DATE 14/02/21

SIGNATURE OF PARENT [redacted] WITNESS Lib. Arkington

or GUARDIAN (for participants under the age of majority)

completed and signed

Appendix 2:

		Test Results					
Component of Fitness	Test	Pre	Norm	Mid	Norm	Post	Norm
Health Related Components							
Muscular Strength	Hand Grip Dynamometer	60R, 52L	Excellent, good			60R, 55L	Excellent, good
Muscular Endurance	30 sec Sit Up	26	Above average			27	Above average
	Press Up to Failure	25	Average			33	Average
Flexibility	Sit and Reach	31	Above average			32	Above average
Cardiovascular Endurance	12 Minute Cooper Run	2450	Above average			2475	Above average
Skill Related Components of Fitness							
Co-ordination	Wall Bounce	28	Average			30	Above average
Reaction Time	Ruler Drop	6.5	Excellent			4.1	Excellent
Agility	Illinois Agility	17.63	Average			16.92	Average
Balance	Standing Stork (non-blindfold)	11	Poor			26.96	Below average
Speed	30m Sprint	4.18	Above average			4.01	Above average
Power	Vertical Jump	65	Above average	67	Excellent	72	Excellent
	Standing Broad Jump	2.65	Excellent	2.66	Excellent	2.73	Excellent

Appendix 3:

	1 st split 0-10m	2 nd split 10-20m	3 rd split 20-40m	4 th split 40-60m	5 th split 60-80m	6 th split 80-100m	Total
Pre	1.85	1.46	2.30	2.29	2.38	2.57	12.85
Mid	2.00	1.74	2.41	2.38	2.41	2.36	13.30
Post	1.76	1.48	2.25	2.28	2.26	2.29	12.32

When starting my 100m-sprint I have decided not to use a starting block as I have never used one before. Furthermore, I will have 6 people to time each of my splits then 1 person at the end of the track to get my final time. In which I can compare my percentage of time taken for each split and analyse my results in order to identify my weakness during the 100m sprint.

data collection explained

targets justified and thoroughly analysed.

Appendix 4:

Specific	My aim has been made specific by clearly stating the number of centimetres, I aim to improve my score in the vertical jump test and the exact amount of time I aim to achieve in the 100m. This means I can make a clear statement whether I achieved or failed my aim after the 6-week period. Improving power will have a direct correlation to my time in the 100m sprint and therefore my targets are specific.
Measurable	Using quantitative results from sessions allows me to measure improvements throughout my sessions, by monitoring the weight (intensity) throughout the 6-week programme. At the end of the 6-week program I can quantitatively measure my vertical jump test score and 100m time, to compare it to my initial aim. As well as completing mid PEP testing to measure my improvement towards achieving my initial aim.
Achievable	I've ensured that my aim is sufficiently challenging so that it is motivating, however, at the same time it is realistic so that it can be achieved over the 6-weeks.
Realistic	I have ensured that my targets are realistic. So that, with strong dedication and a specific circuit training plan it can eventually be achieved by improving my score in the vertical jump test and 100m time.
Time bound	A specific deadline to my aim has been set (6-weeks), this deadline will increase my task adherence and motivation to reach my aim.

Appendix 5:

Specificity	I chose circuit training so that I can include both weight and plyometric stations to focus on building power. This means it is specific to my acceleration at the beginning of the 100m, as well as my performance in the vertical jump test.
Progressive Overload	I can gradually increase the weight used on my weight training stations and the number of reps performed on plyometric stations. This ensures that I am still challenging myself as my strength gradually improves over time and reduces the risk of injury.
Reversibility/Overtraining	To not overtrain and cause reversibility I incorporated rest days during each week and carried out a warmup prior to each session.
Individual Needs	Based on my fitness test we can see power was my weakness, so I based by PEP around developing muscular strength and power within the legs to improve acceleration.
Training Thresholds	Training in the anaerobic training zone (60-80% of maximum heart rate) during my circuit is vital, as it ensures my training is developing power rather than cardiovascular fitness.
F.I.I.T.	I used the F.I.T.T principle to apply progressive overload. Gradually increasing the intensity (weight) as fitness levels

POT discussed and applied to training

	(power) increase. From 82% to 90% of my 1 rep max in weight training exercises, such as the barbell back squat
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Appendix 6:

Warmup: A warm up decreases the chance of injury and reversibility allowing improvements to be made.

- 5-minute jump rope or jog (increases heart rate, breathing frequency, body temperature and distribution of cardiac output towards working muscles)

Dynamic stretching: This decreases muscle viscosity and increases muscle pliability

- Leg swings (stretches hamstrings, gluteus maximus and quadriceps)
- Lateral leg swings (stretches hip flexors, quadriceps, and hamstrings)
- Lunges (stretches hip flexors, gluteus maximus and gastrocnemius)
- Toe touches (stretches hamstring)

Appendix 7:

clear training plan

Macrocycle						
Days	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Monday	Basketball	Basketball	Basketball	Basketball	Basketball	Basketball
Tuesday	Pep session 1	Pep session 4	Pep session 7	Pep session 9	Pep session 11	Pep session 13
	Football	Football	Football	Football	Football	Football
Wednesday	Pep session 2	Pep session 5	Pep session 8	Pep session 10	Pep session 12	Pep session 14
	Football	Football	Football	Football	Football	Football
Thursday	Football	Football	Football	Football	Football	Football
Friday	Pep session 3	Pep session 6				
Saturday	Football	Football	Football	Football	Football	Football
Sunday	Football	Football	Football	Football	Football	Football

Appendix 8:

Mesocycle					
Week	Component of fitness	Frequency	Work: rest ratio	Intensity (% of 1RM)	Type of training
1	Power	3x per week	7:0	82	Circuit
2	Power	3x per week	7:0	86	Circuit
3	Power	2x per week	6:1	90	Circuit
4	Power	2x per week	6:1	90	Circuit
5	Power	2x per week	6:1	90	Circuit
6	Power	2x per week	6:1	90	Circuit

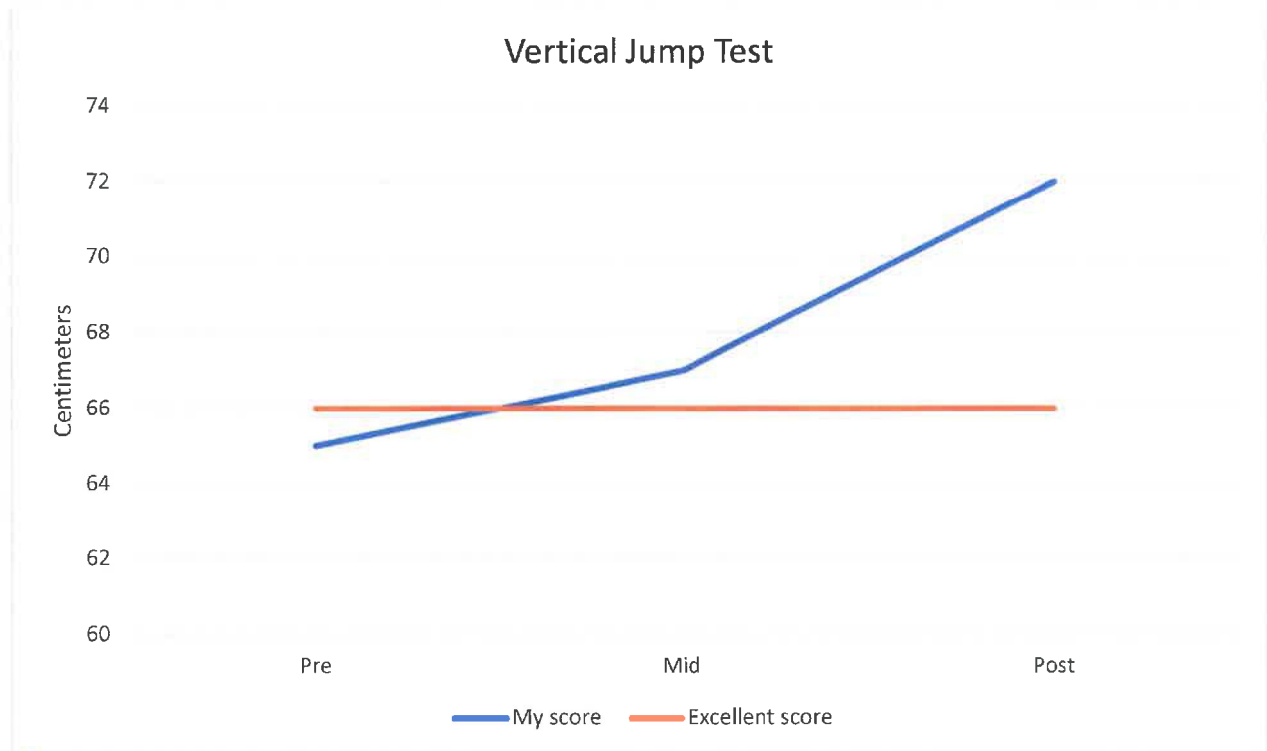
Appendix 9: Micro cycle

Station	Week 1		Week 2		Week 3		Week 4		Week 5		Week 6	
	Sets: Reps	Weight (kg)	Sets: Reps	Weight (kg)	Sets: Reps	Weight (kg)	Sets: Reps	Weight (kg)	Sets: Reps	Weight (kg)	Sets: Reps	Weight (kg)
Leg extension	3:6	72	3:6	72								
Squat	3:5	90	3:5	90 + 5	3:5	95 + 5	3:5	100	3:5	100	3:5	100
RDL	3:5	70	3:5	70	3:5	70	3:5	70 + 5	3:5	75	3:5	75
Calf raises	3:5	110	3:6	110								
Box jumps	3:5		3:5									
Knee drives	3:5	Yellow band	3:6	Yellow band	3:6	Yellow band	3:6	Yellow band	3:6	Yellow band	3:6	Yellow band
Hamstring curls	3:5	24	3:5	24								
Hip thrusts	3:5	100	3:5	100	3:5	100	3:5	100	3:5	100	3:5	100
Depth drops	3:5		3:5		3:5		3:6		3:6		3:6	
Weighted lunges					3:5	30	3:5	30	3:5	30	3:5	30
Lunge jumps					3:5		3:5		3:5		3:5	
Clean					3:5	35	3:5	35	3:5	35	3:5	35
Clap push-up					3:5		3:5		3:5		3:5	

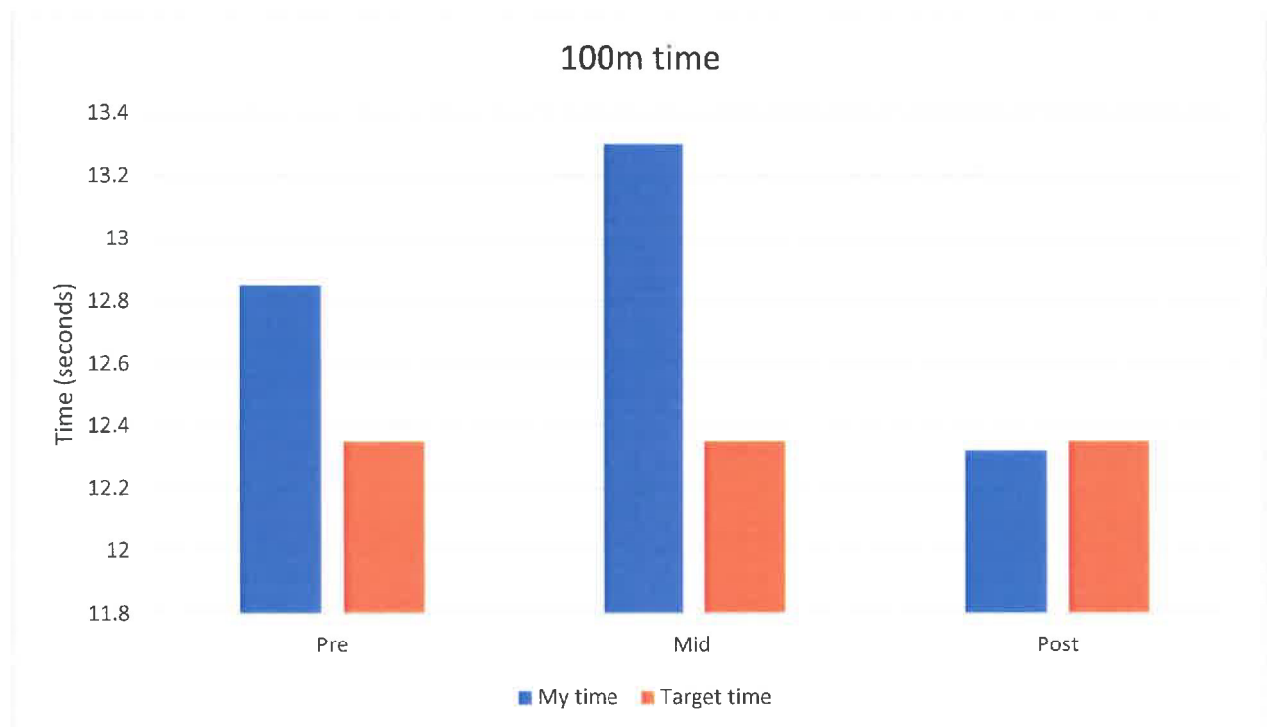
thorough planning
of training sessions

Appropriate presentation
of data as graph

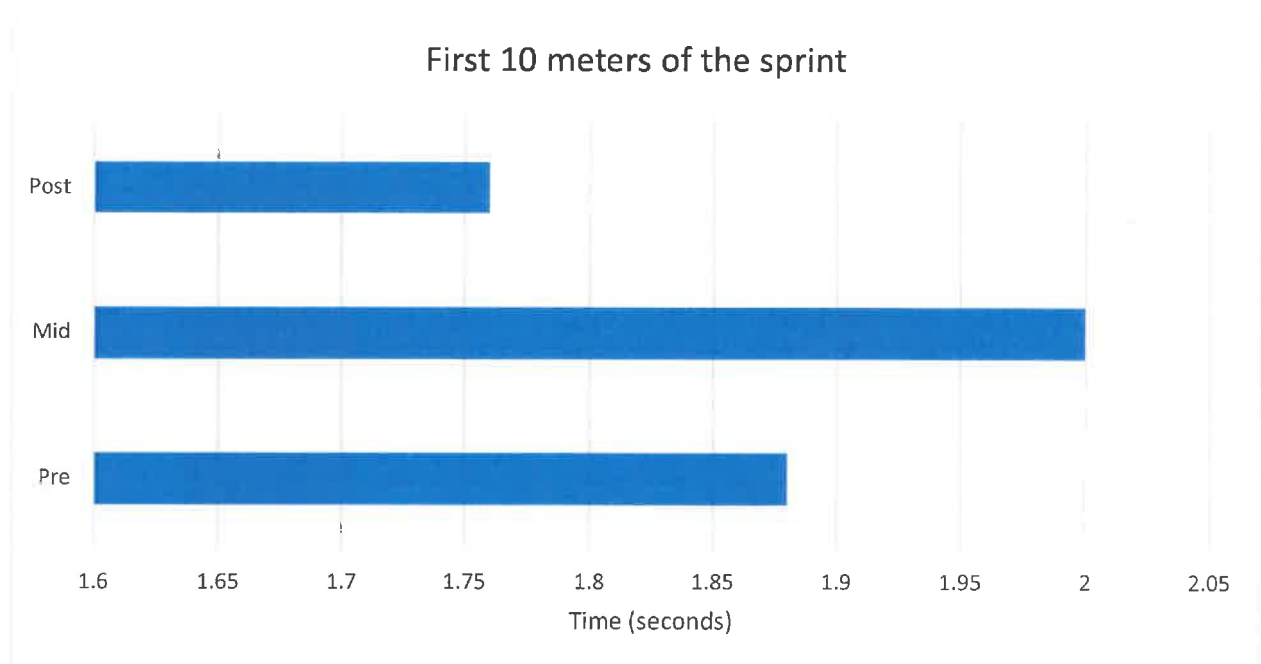
Appendix 10a:



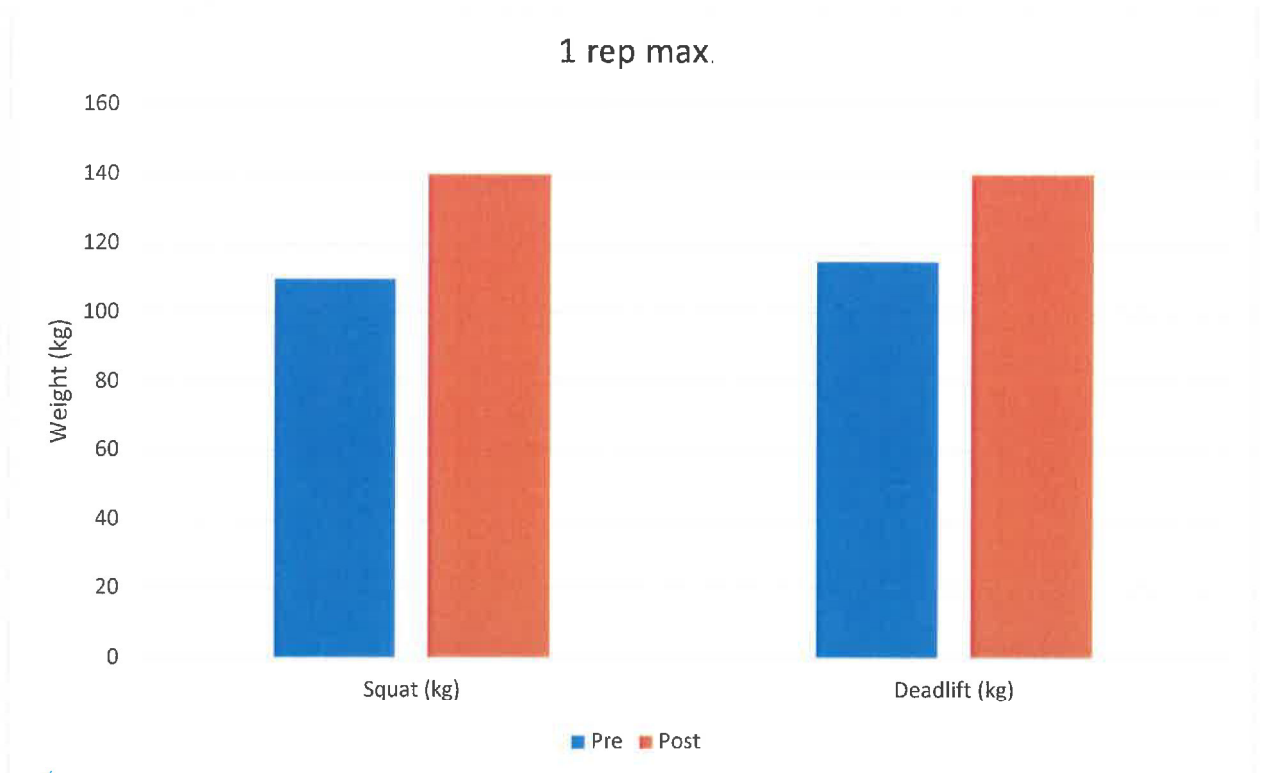
Appendix 10b:



Appendix 10c:

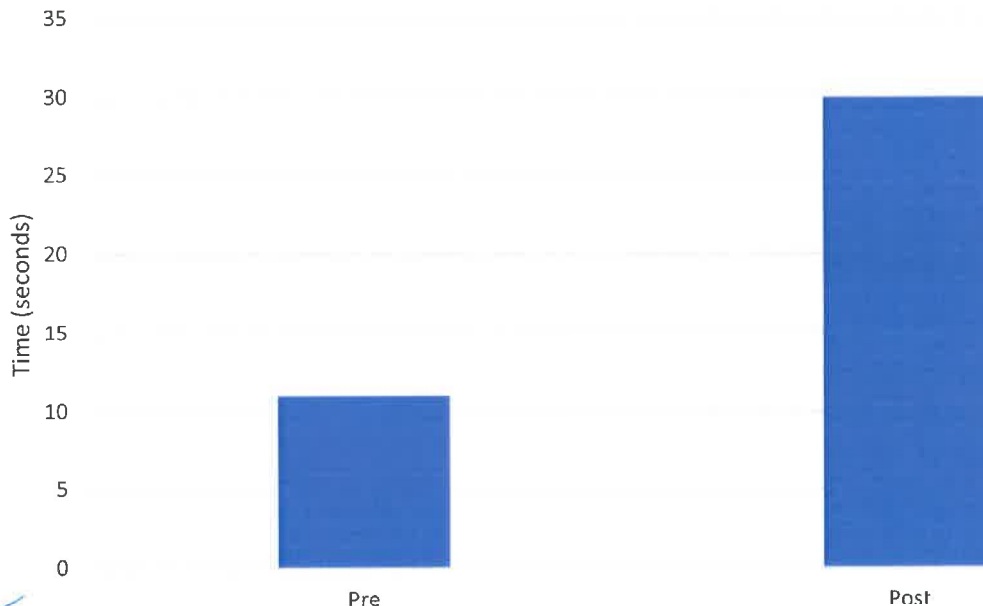


Appendix 11:



Appendix 12:

Standing stork stand



Appendix 13a:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	1		
Date:	2/11/21		

Warm Up Details: 5 min jump rope
5 min dynamic stretching

Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Leg extensions	3	6		72kg
Squat	3	5		90kg
Backsquat deadlift	3	5		70kg
Half squat	3	5		100kg
Half crouch	3	5		110kg
Hamstring curl	3	5		24kg
Knee drive	3	5		20kg
Box jump	3	5		
Depth drop	3	5		
Number of circuits completed:				

Adaptations / issues: As this was the first session no previous overload can be applied. The session took more than 1 hour as the gym was full.

Appendix 13b:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	2		
Date:	3/11/21		

Warm Up Details: Jump rope, 5 min dynamic stretching

Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Leg extensions	3	5		72kg
Hamstring curl	3	5		25kg
Half squat	3	5		110kg
Half crouch	3	5		100kg
Depth drop	3	5		
Squat	3	5		90kg
ADL	3	5		70kg
Box jump	3	5		
Knee drive	3	5		20kg
Number of circuits completed:				

Adaptations / issues: No adaptations but session took longer than 1 hour.

Appendix 13c:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	100m			
Method of Training:	CIRCUIT			
Session Number:	3			
Date:	21/11/21			
Warm Up Details: Jog 5min on treadmill - no incline. 5min dynamic stretch				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Leg extension	3	5		100kg
Hamstring curl	3	5		100kg
Calf raises (seated)	3	6		125kg
Resistance band walk	3	5		75kg
Depth drops	3	5		
Squats	3	5		85kg
Kip thrusts	3	5		100kg
Knee drives	3	5		13kg
Number of circuits completed:				
Adaptations/Issues: Used different gym from usual so weights are different because the machines are different. Progressive overload +5kg on squats. Did knee drives with cable instead of machine based.				

Appendix 13d:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	100m			
Method of Training:	CIRCUIT			
Session Number:	4			
Date:	9/11/21			
Warm Up Details: Jump rope 5min, 5 min dynamic stretch				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Hamstring curl	3	5		70kg
Leg extension	3	5		70kg
Squats	3	5		100kg
Hamstring curl	3	5		100kg
Depth drops	3	5		
Knee drives	3	5		100kg
Hamstring curl	3	5		100kg
Calf raises	3	5		110kg
Number of circuits completed:				
Adaptations/Issues: no adaptations needed, progressive overload 5kg on squats and +5kg on calf raises				

Appendix 13e:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	100m			
Method of Training:	CIRCUIT			
Session Number:	5			
Date:	11/11/21			
Warm Up Details: Jump rope - 5min, 5 min dynamic stretch				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Squats	3	5		100kg
Hamstring curl	3	5		100kg
Kip thrust	3	5		100kg
Leg extension	3	5		70kg
Hamstring curl	3	5		75kg
Knee drives	3	6		
Depth drops	3	6		
Calf raises	3	6		90kg
Number of circuits completed:				
Adaptations/Issues: Progressive overload +2 rep to knee drives				

Appendix 13f:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	100m			
Method of Training:	CIRCUIT			
Session Number:	6			
Date:	12/11/21			
Warm Up Details: 5min jump rope, 5 min dynamic stretching				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Kip thrust	3	5		
Depth drops	3	5		
Squats	3	5		100kg
Knee drives	3	6		70kg
Hamstring curl	3	5		75kg
Calf raises	3	6		110kg
Kip thrust	3	5		100kg
FDL	3	5		70kg
Leg extension	3	6		72kg
Number of circuits completed:				
Adaptations/Issues: No adaptations or issues				

All training records present and completed in full

Adaptations and changes fully recorded

Appendix 13g:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	7		
Date:	14/1/21		
Warm Up Details: 5 min jump rope, 5 min dynamic stretch			
Station	Choose as appropriate		
	Sets	Reps	Time
Single leg lunge	3	5	20kg
Large jumps	3	5	---
Clown	3	5	25kg
One pushup	3	10	---
Hip thrust	3	5	100kg
Depth drops	3	6	---
Squat	3	5	100kg
Large squats	3	6	100kg
RDL	3	5	70kg
Number of circuits completed:			
Adaptations/Issues: Decreased frequency of training to have a week in order to not overtrain. Furthermore, I changed the circuits so that I can target all muscle groups in 1 hour. C = superset			

Appendix 13h:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	8		
Date:	19/1/21		
Warm Up Details: 5 min jump rope, 5 min dynamic stretch			
Station	Choose as appropriate		
	Sets	Reps	Time
Single leg lunge	3	5	20kg
Large jumps	3	5	---
Hip thrusts	3	5	100kg
Weighted depth drops	3	6	---
Clown	3	5	25kg
One push up	3	10	---
Squat	3	5	100kg
RDL			70kg
Large squats			100kg
Number of circuits completed:			
Adaptations/Issues: C = superset RDL with trap bar instead of straight bar because dead was full.			

Appendix 13i:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	9		
Date:	24/1/21		
Warm Up Details: 5 min jump rope, 5 min dynamic stretching			
Station	Choose as appropriate		
	Sets	Reps	Time
Squat	3	6	100kg
Large squats	3	5	100kg
Hip thrust	3	5	100kg
Depth drops	3	6	---
Clown	3	5	25kg
One push up	3	10	---
Single leg lunge	3	5	20kg
Large jumps	3	5	---
RDL	3	5	70kg
Number of circuits completed:			
Adaptations/Issues: but 5 exercises were done 2 times after the first 4			

Appendix 13j:

PEP Training Record Form			
Centre Name:		Centre Number:	
Candidate Name:		Candidate Number:	
Activity/Sport:	100m		
Method of Training:	CIRCUIT		
Session Number:	10		
Date:	24/1/21		
Warm Up Details: 5 min jeb, 5 min dynamic stretching			
Station	Choose as appropriate		
	Sets	Reps	Time
Squat	3	5	100kg
Large squats	3	6	100kg
RDL	3	5	70kg
Weighted lunge	3	5	40kg
Jump lunge	3	5	---
Clown	3	5	25kg
One push up	3	10	---
Hip thrust	3	5	100kg
Depth drops	3	5	---
Number of circuits completed:			
Adaptations/Issues: lifted gym, squat with 20kg machine C = superset			

Appendix 13k:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	Swimming			
Method of Training:	CIRCUIT			
Session Number:	11			
Date:	27/08/2015			
Warm Up Details: Swim jump rope, Swim dynamic stretching				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Swim 100m	3	1		75kg
Swim 200m	3	5		100kg
Swim 400m	3	5		100kg
Swim 800m	3	10		100kg
Swim 1600m	3	5		100kg
Swim 3200m	3	5		100kg
Swim 6400m	3	5		100kg
Swim 12800m	3	5		100kg
Number of circuits completed:				
Adaptations / issues: No changes because the session is sufficiently challenging.				
C = Super set				

Appendix 13l:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	Swimming			
Method of Training:	CIRCUIT			
Session Number:	12			
Date:	1/12/21			
Warm Up Details: Swim jump rope, Swim dynamic stretching				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Swim 100m	3	5		100kg
Swim 200m	3	5		100kg
Swim 400m	3	5		100kg
Swim 800m	3	5		100kg
Swim 1600m	3	5		100kg
Swim 3200m	3	5		100kg
Swim 6400m	3	5		100kg
Swim 12800m	3	5		100kg
Number of circuits completed:				
Adaptations / issues: No changes because the session is sufficiently challenging.				
C = super set				

Appendix 13m:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	Swimming			
Method of Training:	CIRCUIT			
Session Number:	13			
Date:	7/12/21			
Warm Up Details: Swim jump rope, Swim dynamic stretching				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Swim 100m	3	5		100kg
Swim 200m	3	5		100kg
Swim 400m	3	5		100kg
Swim 800m	3	5		100kg
Swim 1600m	3	5		100kg
Swim 3200m	3	5		100kg
Swim 6400m	3	5		100kg
Swim 12800m	3	5		100kg
Number of circuits completed:				
Adaptations / issues: Session took a little more than 1 hour due to a full gym.				
C = super set				

Appendix 13n:

PEP Training Record Form				
Centre Name:		Centre Number:		
Candidate Name:		Candidate Number:		
Activity/Sport:	Swimming			
Method of Training:	CIRCUIT			
Session Number:	14			
Date:	8/12/21			
Warm Up Details: Swim jump rope, Swim dynamic stretching				
Station	Choose as appropriate			
	Sets	Reps	Time	Intensity
Swim 100m	3	5		100kg
Swim 200m	3	5		100kg
Swim 400m	3	5		100kg
Swim 800m	3	5		100kg
Swim 1600m	3	5		100kg
Swim 3200m	3	5		100kg
Swim 6400m	3	5		100kg
Swim 12800m	3	5		100kg
Number of circuits completed:				
Adaptations / issues: No adaptations or issues.				
C = super set				

