

PEP

Name:

Sport: Athletics

Components: Speed

Introduction: My name is X, I am a short distance runner. I started to be part of this club last year that is why I haven't achieved my goals and I would like to improve my technique. I train two times a week for a period of one hour, and on weekends I go out for a run with my parents. In this training program I will be working on my speed throughout the 30meter sprint test. I need to improve my speed as it is the most important factor for a short distance runner to dominate

What components of fitness I'm testing?

To work with my 30meter sprint I'll have to test my speed. To get to that point I have to make my leg muscles work with progressive overload. In this case I will do exercises which involve hamstrings, quadriceps, calves etc. It is important to also work with your stability due to the fact if you get to a high speed it's important to maintain the coordination as the foot creates ranges of motion like dorsi-flexion and plantar-flexion

Goals: I will work 2 times a week on an indoor gym for a period of 45 minutes each session. I will measure, before every training, my time taken to sprint 30 meters

Pre-PEP fitness

Component	Fitness Test	Result	Against normative data
Speed	30 meter sprint	4.90	Below average

Smart targets:

SPECIFIC: My aim is to reduce the time of my 30 meter sprint for at least 1 second

MEASURABLE: My aim is measurable as I can check the time I take at every sprint with a stopwatch

ACHIEVABLE: My goal is achievable because with practice and dedication I will get to improve my time even if it is only 1 second

REALISTIC: It is difficult so improve greatly but I have the facilities to access and practice

TIME- BOUND: I have a period of 6 weeks

PAR-Q QUESTIONS:

1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
I don't have any heart or health conditions
2. Do you feel pain in your chest when you do physical activity?
Only when I perform very strenuous activity
3. In the past month, have you had chest pain when you were not doing physical activity?
No, I haven't experienced any chest pain when not performing physical activity
4. Do you lose your balance because of dizziness or do you ever lose consciousness?
I have once lost my consciousness but not because of physical activity, so I do not lose control of my body in any moment
5. Do you have a bone or joint problem that could be made worse by a change in your physical activity?
No, I have never broken or fractured any bone of my body
6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
At the moment, I'm not taking any drug or medicine, neither for my blood pressure or heart condition
7. Do you know of any other reason why you should not do physical activity?
No, I don't have any reason to not exercise, in fact I need it to be healthy and stable

Methods of training

To improve my 30 meter sprint I must build up muscle to boost my output. When training for building muscle it is recommended to do it on staggered stance, which means the feet are spread and are not positioned in the same spot following a line, unilateral exercises are also more efficient. I will perform exercises like lunges, rear foot elevated split squats, deadlifts. Additionally, exercises involving jumping and landing, known as plyometrics, will have to be added too.

Staggered stance:

As I said before, staggered stance is better as it introduces single leg training while practicing stability. When performing regular exercises usually we end up with our spinal chord in a flexed position, by having it elevated it helps to maintain a steady position. I will perform unilateral movements like lunges, rear foot elevated split squats, single leg squats and deadlifts when it comes to developing your sprinting speed. Lunges strengthen the lower-body muscles and improves flexibility. The rear foot elevated split squats work quads, hamstrings, glutes, abdominals and erectors.

Hamstrings:

To improve speed is the Nordic hamstring curl. This exercise requires both eccentric and concentric strength, which challenges your hamstrings in their full range of motion. I will also perform traditional single leg curls could be standing or lying, single-leg hip thrusts and deadlifts with a little amount of weight which I will progressively overload.

Plyometrics:

As an athlete it is important to have the ability to perform both broad jumps and vertical jumps as it is the best for a top speed runner. One leg jumps are dangerous, in case you loose balance you can be severely injured.

Foot work:

It is important to focus on working your feet, they create a big force when they hit the ground. I must work stability and range of motion are critical when running at top speed. In order to sustain this, you need strong mobility and stability. Maintaining a good range of motion is critical for dorsiflexion, plantarflexion, inversion and eversion. I will maintain my body's force striking into the ground, or single-leg calf raises and foot raises. I have to my body on the range of motion throughout the foot and ankle.

Training program

Warm-up: Five minute jog in the treadmill at a low intensity to raise my pulse. Depending on the area of my body I'm focusing on, I will do dynamic stretches focusing on that muscle area.

Cool down: Recovery, full body stretches at a 50% heart rate like knee to chest pose, reclining butterfly pose etc.

I will do circuit training with different ranges of exercises between 60% and 80% of my Max HR, calculating it by doing 220 mins minus 15 (my age), which is 205 and times it by 0.6 and 0.8 which is the range which I will be working at.

1st week:

Tuesday

Exercise	Weights	Reps	Sets	Rest
Full-back squats	15kg	8	3	45sec
Split-squats	10kg	10	3	45sec
Good morning	10kg	10	3	45sec
Glute Ham	None	7	2	1min

Raise				
Hamstring curl	None	7	3	30secs

Thursday

Exercise	Weights	Reps	Sets	Rest
Dumbbell Incline Press	16kg/ Each 8kg	15	2	2min
Bench dips	None	7	3	2min
Standing Dumbbell bicep curl	16kg/ Each 8kg	10	3	2min
Push-up	None	7	3	3min
Front to lateral raise	10	5	3	3min

In this training program, I progressively overloaded and increased the endurance of the workout. That is why I felt more tired and my heart rate was at higher rate, I had much less breath and I secreted more sweat than usual. When I ended my workout, I felt more tired than usual.

2nd week:

Tuesday:

Today I will test my my speed with, again, the 30 meter sprint test. I will additionally go out for a 45 minute run to work on my resistance. I will perform intervals of 5 minute constant run and 30 metger sprint

Test	Component	Result	Against normative data
30 meter sprint	Speed	4.7	Average

After one week of training, my results improved a thousandth of a second, which for a week is a really good result because it means, for the end of my 6 week programme I will be able to accomplish my target.

Thursday:

Today I will be focusing on developing quadriceps strength using a band

Exercise	*Use band	Sets	Reps	Rest
Resistance Band Squats		3	15	2 minutes
Resistance Band Deadlifts		3	10	1 minute
Resistance band seated leg extensions		2	10	1 minute
Resistance band jumps		2	15	2 minutes

squats				
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After

3rd week:

Monday:

Exercise	Weights	Sets	Reps	Rest
Box Jumps	No weights	2	10	2 minutes
Plyometric push-ups	No weights	3	7	1 minute
Kettlebell swings	8 kilograms	3	10	45 seconds
Squats	No weights	2	10	45 seconds

Wednesday:

Exercise	Weights	Sets	Reps	Rest
Dumbbell press	20kg/10kg each	3	10	1 minute
Split squats	10kg	2	5	30 seconds
Push-up	No weights	2	10	1 minute
Standing dumbbell biceps curl	18kg/9kg each	2	10	1 minute

4th and 5th week: Plyometrics training

Exercise	Weights	Sets	Reps	Rest
Squat jumps	None	4	15	2 minutes
Reverse lunge knee-ups	None	3	15	1 minute
Burpees	None	3	10	2 minutes
Tuck jumps	None	4	10	30 secs

6th week: Fitness testing

45 minute run

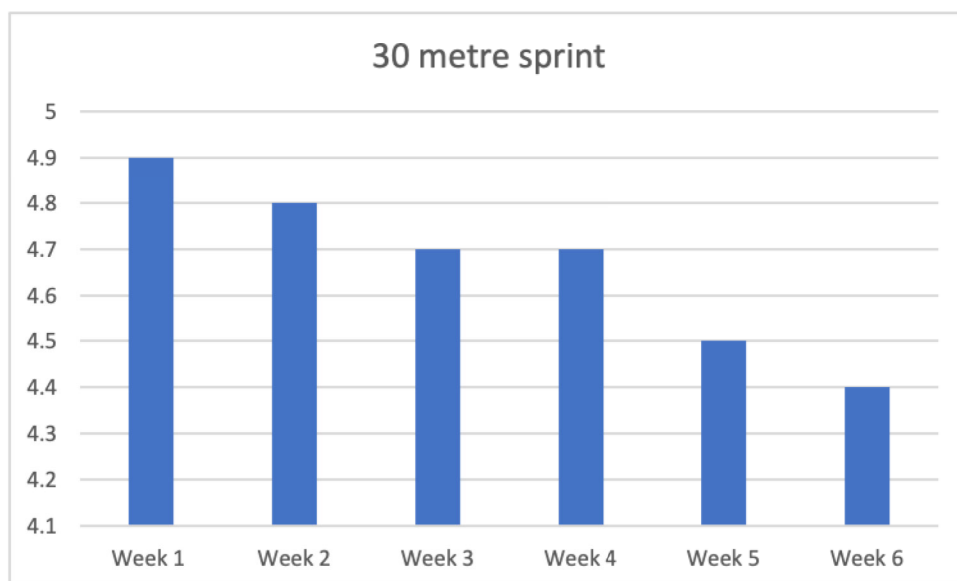
Exercise	Weights	Reps	Sets	Rest
Dumbbell Incline Press	16kg/ Each 8kg	15	2	2min
Bench dips	None	7	3	2min
Standing Dumbbell bicep curl	16kg/ Each 8kg	10	3	2min

Push-up	None	7	3	3min
Front to lateral raise	10	5	3	3min

Appendix:

Post-pep results→

Component	Fitness Test	Result	Against normative data
Speed	30 meter sprint	4.40	Excellent



To conclude with my Personal Exercise Program, I didn't achieve my goal which was to reduce my time for one second. Although one second might seem irrelevant, in small distance races it can really make the difference and lead you to the podium. The application of the SMART targets in my PEP was crucial, that is why I didn't achieve my goal, my program was too short, next time instead of a 6 week program I will do 12 week program (3 months). Additionally, my 30 metre sprint test weren't performed on a competitive situation, therefore the lack of pressuring may have affected my results. I used the correct techniques when performing the skills in the training sessions, and I also progressively overload, but the error was to perform too broad exercises. I should have focused on specific areas of my body to improve their quality of movement at its optimum, like for example I should have worked on my feet stability and range of movements with exercises focused on the ankle.

Having worked on my speed, which has actually improved and managed to move me to an excellent overview against normative data, in future I will work on my reaction time as the take-off in a short distance race is one of the most important areas. I will test it with tests such as the ruler drop test

Personal exercise programme training record form

Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Physical Education		1PE0/04
Centre name:	Centre number:	
Candidate name:	Candidate number:	
Chosen activity/sport: Athletics		
Chosen method of training: Plyometric training		
Date and number of training session: Week 6 session 1		

Pre-exercise heart rate before warm up	Working heart rate	Immediate post-exercise heart rate
80bpm	125bpm	128bpm

Recovery heart rate at the following intervals (bpm)	1 min	2 min	3 min	4 min	5 min
	119bpm	106bpm	90bpm	82bpm	81bpm

Description of training session appropriate to the method of training, e.g. map of continuous training course, plan of circuit training session
My training method is plyometrics, that's why I will have a variety of exercises with changes in speed and intensity. I will work on my staggered stance and my stability, also on my leg strength to impulse myself in the beginning of the race, which is the most important part

Any adaptations or changes you have made to this training session and why
Next time I will make my programme longer to have more time to achieve my gal. I will improve my focus on plyometrics and next time I will work more on my reaction time for the first half of the race.