# Priti Tapariya

# Personal Exercise Programme

# Center Name: Claremont High School

Candidate Number: 2277

#### **Personal Training Program**

#### **Planning**

<u>Aim:</u> to plan, perform, monitor and evaluate a 10 -week training program for a specific sport and position, which will improve individuals fitness. To develop two aspects of my fitness to improve my performance in Netball. The two aspects I will be training are Muscular Endurance and F lexibility. I have decide to train these two aspects out of al I the Health and Skill related F itness principles as I believe improving them will have a positive impact on my performance in Netball. These two aspects will not be too difficult to train, as they do not require a large amount of specialised equipment, as I will be able to find them all at Fitness F irst.

Personal Profile:

Name: Priti Tapariya

**Age:** 17

Gender: Female Height: 5'7 Weight: 11 stone

<u>Health Problems:</u> None **Activity:** Netball Goal Shooter

Facilities: Fitness First Gym, Kingsbury

- Lacinitation - Laci

My name is Priti Tapariya and I am 17 years old. The sport I have chosen to do a perso nal exercise program is Netball. My height is 5'7 and my weight is 11 stone. The game of Netball requires many different aspects of fitness, which I will outline below . I will be able to train for Netball once a week. I have no current health problems which could affect my Netballing game. I enjoy playing this sport as it is a team game and is enjoyable to play. It also has different aspects which can help you keep fit and healthy.

**Sport and Position:** Netball Goal Shooter

<u>Health related Components:</u> Agility, Balance, Co-ordination, Flexibility, Power, Reaction Time, Speed, and Stamina.

<u>Agility:</u> the ability to change directions of the body a t speed, in one complete action. I will need to be able to do this, as I will be defending the ball from the keeper; as well as dodging the goalkeeper, to get free. This will enable me to receive the ball; I will need to be able to move my body into the right positions so I am able to shoot accurately and in one complete action.

<u>Balance:</u> the ability to maintain equilibrium when stationary or moving. As I am unable to move with the ball, I will need to be able to keep balance whilst intercepting the ball when moving; therefore needing to maintain full balance.

<u>Co-ordination:</u> the ability to carry out a series of movement smoothly and efficiently. I will need to be able to take shots at the goal post; at the right angle, time and with the right amount of power. I will have to make sure the timing of the shot is correct, as I do not want the defender to be getting in the way of the shot. I will also need co-ordination whilst passing the ball in the attacking third successively, to enable the best shooting position and stance.

<u>Flexibility:</u> the ability to move our joints and limbs through the ere full range of movement. I will need to be able to move to my fullest; whilst intercepting the ball or defending my opposition. I need to be able to move my muscles fully and freely allowing the best movement in time. My position will need this when having to react suddenly and receives the ball at a different angle than expected; this requires the body to move through a range of movements.

<u>Power:</u> the ability to combined speed and strength together. I will need to be able to dodge the opponent to get free to receive the ball; having the r ight amount of power and strength in my arms and legs when taking the shot at the goal po st.

Reaction time: the ability to respond to a stimulus quickly. I will need to be able to do this when receiving the ball, defending the opponent when they are tryin g to dodge me and get free. I will also need this when the goal attack or myself has taken a shot and am going for the rebound; as I need to jump to intercept the ball at the right time in order to gain position.

<u>Speed:</u> the ability to move all or part of the body as quick as possible. The player needs to be able to dodge the opponent efficiently to create a space in order to receive the ball and to prevent them from intercepting the ball. Speed is also required as you are not in play the whole time, ther efore this allows you to have a longer recovery period, as you are making movements at speed for a short period of time.

<u>Stamina:</u> the ability to work the body for a long period. The player needs to be able to continue to play to the best of their ability without tiring quickly. Stamina is not required as much for this position as they are not in play in the game the whole time.

#### **Skill related Components:** Muscular Endurance, Muscular Power

<u>Muscular Endurance:</u> the ability to work a group of muscles very hard and maintain contraction over a period. The player needs to be able to work at a high intensity for a short period; as they are not in play throughout the whole game a llowing a longer recovery time.

<u>Muscular Power:</u> the ability to contract a muscle with speed and at force in one explosive act. This is required, as you need it when passing the ball through out the game. This needs to be done quickly and in one act.

Tests: Muscular Endurance: Abdominal curls (correctly done in 30 seconds)

- Press ups in 1 minute

Flexibility: Sit and Reach Test

Speed: 50m Sprint Agility: Illinois Run

<u>Stamina:</u> Multi stage fitness test (Beep test) Muscular Power: Standing Vertical Jump

From the tests listed above I will have to do the Abdominal C urls (correctly done in 30 seconds), Press ups in 1 minute, Sit and Reach Test and Standing Vertical Jump both before and after my Personal Exercise Program as these 4 tests are the main tests that are training my main components. I will not have to redo the 50m Sprint again as I am not training speed, the Illinois Run as I am not training Agility and the Multi stage fitness test (Beep test) as I am not training Stamina as my main components.

Below are tables for the national average test scored in comparison to my scores b efore the Personal Exercise Programme.

Abdominal Curl Test (number in 30 secs)

High Score	Above Average	Average	Below average	Low Score	My Score
Above 24	23-21	20-19	18-17	Below 17	20

Press ups (number in 1 minute)

High Score	Above Average	Average	Below average	Low Score	My Score
27-35	21-27	11-20	6-10	2-5	27

#### Sit and Reach Test

High Score	Above Average	Average	Below average	Low Score	My Score
Above 35	35-32	31-30	29-25	Below 25	23

Standing	Vertical	l Jump (	(cm)	)
----------	----------	----------	------	---

High Score	Above Average	Average	Below average	Low Score	My Score
------------	---------------	---------	---------------	-----------	----------

1 2					
Above 60	60-51	50-41	40-35	Below 35	32

Illinois Agility Run (secs)

High Score	Above Average	Average	Below average	Low Score	My Score
Faster than	17.5-18.6	18.7-22.4	22.5-23.4	Slower than	23.89
17.5				23.5	

Multi Stage Fitness Test (VO2 Max) (ml/kg/min)

High Score	Above Average	Average	Below ave	Poor	My Score
47-56	42-46	38-41	33-37	28-32	Below 28

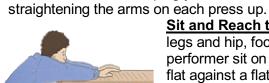


Abdominal Curl: lay flat on your back, with your feet bent at the waist and the knee. You start flat on you back and sit up to 90 keeping your arms across you cheat. Keeping your legs bent at the knee and the soul of your feet flat on the floor. You them count how many you fully do in 30 seconds.

Press Ups: Keep your bodyline straight and making sure you get close to the



and feet pressed waist and slowly knees straight and reach on the



floor, on each one, keeping your arms cheat width apart, bending and straightening the arms on each press up.

Sit and Reach test: measuring the flexibility of your

<u>Sit and Reach test:</u> measuring the flexibility of your legs and hip, focusing on the hamstrings. The performer sit on the floor with both legs out stretched flat against a flat surface. You then bend from the reach forward as far as possibly, while keeping your flat on the floor. The distance that your fingertips maximum stretch is than recorded.



<u>Standing Vertical Jump:</u> Stand with your back to the chart, measuring where the top of your head reaches and line up with zero. Bend your knees, and jump upwards, fully extending your body. Touch the chart, as high as you can with you fingers; and measure were you reach. You would than record the best score out of your three attempts.

Below are tables for the national average test scored in comparison to my scores after the Personal Exercise Programme. As I have not been training Agilit y and Stamina I did not need to re -do the tests after the Personal Exercise Programme, as they were not necessary.

Abdominal Curl Test (number in 30 secs)

7 110 010 111111011 0 0111	7.10-0-11.11.0-11.0-11.11.0-11.11.0-11.11.0-11.0-11.11.0-11.0-11.11.0-11.								
High Score	Above Average	Average	Below average	Low Score	My Score				
Above 24	23-21	20-19	18-17	Below 17	19				

Press ups (number in 1 minute)

High Score	Above Average	Average	Below average	Low Score	My Score
27-35	21-27	11-20	6-10	2-5	34

#### Sit and Reach Test

High Score	Above Average	Average	Below average	Low Score	My Score
Above 35	35-32	31-30	29-25	Below 25	23

Standing Vertical Jump (cm)

High Score	Above Average	Average	Below average	Low Score	My Score
Above 60	60-51	50-41	40-35	Below 35	35

**Evaluation and comparison of pre -test results:** if I were to do a comparison of my results before the Personal Exercise Programme against the National average for female 15-16 year olds, my scores would be mainly below average. In the Abdomina I, I performed 20, against the National average that is average. For the Standing Vertical J ump I scored 32cm, which is a low score, I also got a low score on the Sit and R each test, as a low score was less than 25cm, and I performed 23cm. on the Press Ups my score was below average.

After I had completed my Personal Exercise Programme, I redid the tests, which I had to do, which were associated with my training components. When I re-did the Abdominal Curls, my performance decreased by 1 curl, down to 19 curls in 30 seconds. I was still in the a verage section compared to the National average. On the Standing Vertical J ump, my score increased by 3 cm, still leaving me in the below average section, with a low score, compared to the National average. On the Sit and Reach test, I did not make an improvement, or decrea se my score. As I was training Flexibility, I was a bit surprised that I did not improve on my score. Overall, I had not improved on my main components, and this showed that the Sit and R each test did not help me see if I had made an improvement, if any. After my Personal Exercise Programme, i was able to see that my Flexibility training did not help me improve. This may have been due to several reasons; it may have been that I was not doing the right stretches to train Flexibility,

I was not doing the stretches correctly, and I was not pushing myself to my maximal potential. All of the above factors may have been responsibly for my not improving in my Personal Exercise Programme.

<u>Muscular Endurance:</u> As I am working on Muscular Endurance, I will need to focus my Personal Exercise Programme mainly on my arms and upper body and partly on my legs, as my upper body is used more as I intercept and pass the ball. My legs come into action mainly using speed, when I am running. By training Muscular Endurance, I will be able to maintain my speed and strength throughout the game.

<u>Flexibility:</u> is the ability to move our joints and limbs through there full range of movement. There are many different types of mobility training that can be used to improve Flexibility. It may also reduce the likelihood of injury, therefore the more flexible you are, and the less likely you are to get injured.

<u>Active stretching:</u> involving a large amount of voluntary muscular contractions and holding stretches for a period between 30-60 seconds.

<u>Passive stretching:</u> involving the help of a partner to apply added force and resistance. This allows you to push yourself a little harder and be able to stretch a bit more.

<u>Proprioceptive Neuromuscular Facilitation (PNF):</u> involving the isometric contraction of the muscles during passive stretching to further stretch the muscles. In Netball, I will need to have a large range of movement as I may have to move the muscles to an uneasy position to intercept or defend the ball.

#### **Safety Considerations:**

<u>Why should I perform a warm up and cool down?</u> Warn ups and cool downs are the most important of all principles of training. This is as you are preparing the body for exercise, to prevent an injury and undue muscles soreness and discomfort following exercise.

<u>Benefits of a Warm up:</u> improves oxygen delivery due to an increase in heart rate and dilation of blood vessels due to the release of adrenaline.

- Increased temperature increases viscosity of the blood, improving blood flow to the working muscles.

- Increase muscles temperature; improve elasticity of muscles fibres, which can lead to a rate of force and speed of contraction.
- Increase speeds of nerve impulse transmission, which can help use perform skills better.

<u>Benefits of a cool down:</u> maintains cardio respiratory functioning, which helps to speed up the recovery process.

- Keeps capillaries and other blood vessels dilation, enabling the muscles to be filled with oxygen -rich blood, which helps to remove fatiguing products such as lactic acid and carbon dioxide, which can act on our pain receptors.
- It can help minimise muscular pain.

#### Warm up:

Warming up is a very important part of exercise. We need to do this to gradually raise the body's temperature and heart rate. This improves the exchanging of oxygen from haemoglobin, warms up the muscles, warms and loosens joints. The whole point of warming up is to prepare you for the main activity. The three main reasons for warming up are:

- To prevent injury, when more blood is running through the body you are less likely to be injured.
- To improve performance, like stretching for more flexibility.
- To prepare psychologically for the event, like mobility work.

Cardiovascular means working of the heart and blood vessels. This is the first part of the warm up and to get the heart working harder than normal, (raising he art rate) to get blood pumping around the body, faster and more efficiently and to prepare the body for the next phase of the warm up. We can do this in various ways, we can run, skip or cycle but it is dependent on what training I will be training and weather I am inside or outside; as I am inside I will be using the exercise bike, as it will increase my heart rate and body temperature.

The next phase of warming up is stretching. The muscles I will need for Netball are my leg muscles (Gastronomies, Quadriceps- Rectus Femoris, Vastus Lateralis, Vastus Medialis, Vastus intermedius, hamstrings- Biceps Femoris, Semitendinosus, and Semimembranosus) and arm muscles (Biceps and Triceps).

#### Tips for stretching

The aims of stretching are to gently lengthen muscles before and after exercise, and to improve tissue elasticity.

- Start with gradual mobility exercises of all joints, like rotating wrists; bend your arms, rolling shoulders. This helps the body's natural lubrication (synovial fluid) to protect the surface of your bones at these joints.
- Always warm up your body prior to stretching because this makes the muscles suppler.
- Stop immediately if you feel severe pain
- Remember, breathe regularly and rhythmically, do not hold your breath.
- Start with your legs, and work up the body, in order not to miss out any stretch.
- Never bounce stretch.

#### Cool Down

We cool down, so that the next day you do not get pains in your muscles that you used the day before. Cooling down helps to get rid of lactic acid, this builds up during ana erobic activity. My cool down will be for 5 minutes. I will be using the Ascent Climber for my Cardio Vascular cool down, as it uses various muscles in my body, allowing the body to get rid of the lactic acid and other waste products that have built up in my body slowly at a gradual speed. You should make your stretches last at least between 8-10 seconds to be sure that you have got rid of lactic acid. Cooling down is basically the second phase of warming up, it is getting rid of the lactic acid that has built up in your body in order for you to be able to continue everyday activities.

<u>General Safety issues:</u> When doing any sort of training it is obviously very important to keep things safe, and avoid any sort of injury as this could affect your training.

In my Personal Exercise Programme I will ensure everything is safe to use before starting my training. During the session you have to make sure you have your hair tied back if it is long; as it could get caught in the machine and cause an accident. You have to do a general check of all the machines before using them to avoid any chance of an accident. Make sure there are no obstructions in the immediate training area that will interfere with the movement of the body. Make sure weights bars are tight and properly placed on the machines to prevent the weights from sliding off.

#### Specific training issues/techniques:

There are two parts to warming up; there is the Pulse raiser and the stretching.

<u>Pulse raiser:</u> a 5-10 minute period of light continuous exercise. This is to increase the heart rate and body temperature and help redistribute the blood to the working muscles.

<u>Stretching:</u> stretching follows the pulse rising session. It is to fully stretch the muscles and to take them through there full range. Stretches should be held for 8-10 seconds, you should not bounce whilst holding a stretch.

Before starting the weight or stretches training, I have to check all the machines before starting to make sure the machines are safe to use. I have to check the weight is right and none of the other areas of the machine is unsafe to use. I have to have my hair tied up during the session as it is long and may get caught of the machines, leading to a safety hazard.

<u>Discussion of Personal Factors:</u> I will be able to train every week as there are no health or safety factors that will be affecting my training. There are no personal factors that will come in the way of the training sessions.

#### **Suitability/ Purpose of Exercise:**

#### **Training Methods:**

- Fartlek Training
- Interval Training
- Plyometric Training
- Continuous Training
- Weight Training
- Circuit Training
- Proprioceptive Neuromuscular Facilitation (PNF)

<u>Weight Training:</u> Weight training is used to strengthen Muscular Endurance, as I am training my muscles hard for a period. By using weights, I am able to increase and decrease the weights, as I feel comfortable, and have had a set plan, by using different weight machines at different times, and in an order that will not strain my muscles. By having a set plan, it is easier on my body, as I have separated the leg weight machines and the arm weight machines, so I am not going for 1 to another. By following the plan, I am able to give my muscles a break and reduce the chance of an injury.

<u>Circuit training:</u> is performing a series of exercises or activities in a special order, between 6-8, activities are done all exercising different muscle groups. Circuit training is an excellent way to simultaneously improve mobility, strength and stamina. The circuit training format utilizes a group of 6 to 10 strength exercises that are completed one exercise after another. Each exercise is performed for a specified number of repetitions or for a prescribed time period before moving on to the next exercise. The exercises within each circuit are separated by bri ef, timed rest intervals, and each circuit is separated by a longer rest period. The total number of circuits performed during a training session may vary from two to six depending on your training level (beginner, intermediate, or advanced), your period of training (preparation or competition) and your training objective.

<u>Continuous training:</u> There are two main types of continuous training. High intensity and low intensity distance. Low intensity exercise that uses a large group of muscles. Intensity training between 60-%-85% HR max, with the duration between 30 mins - 2 hours.

<u>Fartlek Training:</u> a form of continuous training where the intensity or speed is varied, from sprinting to-jogging-to-walking. It is both aerobic and anaerobic. It is also referred to as 'Speed Play' and combines continuous and interval training. Fartlek allows the athlete to run whatever distance and speed they wish, varying the intensity, and occasionally running at high intensity levels. This type of training stresses both the aerobic and anaerobic energy pathways.

<u>Interval training:</u> built up of Sprint, Anaerobic and Aerobic. An intermittent training that involves periods of alternating exercise and rest. Interval running enables the athlete to improve the work load by interspersing heavy bouts of fast running with recovery periods of slower jogging. The athlete runs hard over any distance up to 1k and then has a period of easy jogging. During the run lactic acid is produced and a state of oxygen debt is reached. During the interva I (recovery) the heart and lungs are still stimulated as they try to pay back the debt by supplying oxygen to help break down the lactates. The stresses put upon the body cause an adaptation including capillarisation, strengthening of the heart muscles, improved oxygen uptake and improved buffers to lactates. All this leads to improved performance, in particular within the cardiovascular system.

<u>Plyometric:</u> a type of training that involves an eccentric muscle contraction followed immediately by a concentric contraction. Speed and strength are integral components of fitness found in varying degrees in virtually all athletic movements. Simply put the combination of speed and strength is power.

<u>Proprioceptive Neuromuscular Facilitation:</u> a stretching technique that seeks to inhabit the stretch reflex that occurs when a muscle is stretched to its limits. Proprioceptive Neuromuscular Facilitation (PNF) is a type of flexibility exercise which combines muscle contraction and relaxation with passive and partner-assisted stretching. The technique has received considerable attention recently, since it is thought to improve range of motion in the skeletal joints to a greater extent than conventional static stretching.

#### My methods of training

Weight Training is a big part of my position Goal Shooter in Netball as I need to be able to attack the ball when needed as well as defend the ball when moving out of the attacking third. Weight training allows me to train the muscles that I need to; to increase power and strength in the shots and passes. By increasing the power in my shooting I am able to relax more as I do not need to put as much leg power into the shot. I am able to fully concentrate on the arm power, with a part of leg power.

In my Personal Exercise Programme, I will be using Weight training, as I feel it is the most relevant for Netball out of all the other training methods. By using weight training I will be able to train a wide range of muscles in my body at once, where as by using other training methods, I will not get this advantage. After taking part in the Personal Exercise Programme I am able to feel a lot more at ease when taking part in my sporting activity Netball. I am able to fell that I can move around a lit quicker with more ease as to what I could do before. This gives me a chance to intercept the ball quicker and be able to move as the game goes on with more confidence and less pressure. Using Flexibility seems to have had a big impact on my game now, as before I would have to move further to intercept/receive the ball; whereas now I am not finding it difficult as I have more flexibility in my upper and lower body. This helps me stretch to my fullest and helps further. Weight training has given me the chance to increase the power of my passes, shots and allowed my interception to be more accurate; as I am able to fully move the ball away from the opposition now. This gives me an advantage as I am able to play the game at more ease and at the same time be able to achieve the needs of my position.

**Specificity:** every type of exercise has a particular effect on the body. The type of training we choose must be right for the type of improvement we want to see. For Netball, I will be mainly concentrating on Muscular Endurance and flexibility. Over the 10 week's I will be focusing on training Muscular Endurance and Flexibility, at the end of the programme I am hoping that I will have been able to see that as I progress through the weeks, by using the right equipment to train the components and by using them in the right way.

<u>Progression:</u> the body takes time to adapt to more or harder exercise. We must build up the stress on our bodies in a gradual or progressive way to help them adapt to the new working conditions. Over the 10 weeks, I hope to be able to slowly increase the weights on the machines. I will gradually increased them as I fell my body is able to adapt to the weight as I fell less strain when doing the weights previously.

<u>Overload</u>: to improve the fitness of our body system we need to work them harder than normal. The body will than adapt to the extra stress and will become fitter. Overload may occur when you have not fully adapted to the working conditions/ weights being used. You will put ex tra pressure on them to help the muscles adapt to the extra weight. As the body works harder it becomes more adapted to the working conditions and helps the body become fitter, and at a quicker rate

<u>Reversibility:</u> our bodies adapt to the stress of exercise by becoming fitter. In the same way, we quickly adapt to less exercise by losing fitness. I may experience reversibility in between week 3 and 4, as there was a week's break in between. There may not be a big change as it is only a week but then again may be difficult for my body as there has been a change.

<u>Tedium:</u> our training programme must be varied to avoid boredom. By using a variety of different training methods or weights, and keep, my enthusiasm and motivation level high. By using, a number of different machines to train different components our body will not get bored as easily.

**<u>Frequency</u>**- how often we train.

**Intensity**- how hard we train.

**<u>Time</u>**- how long we train for.

**Type**- what type of training we use

There are factors that can relate to the r esult and outcome after the Personal Exercise Programme. The time in which I train for will affect my final performance. I have been given 1 hour 30 minutes to complete my session; I am able to complete:

- A 5 minutes cardio vascular on the bike to warm up
- Mobilising joints and fully stretching for 5-10 minutes
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable, I have 40-50 minutes to complete this.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get r id of lactic acid, fully stretching and mobilising joints.

Maximum heart rate = 
$$220 - age$$
  
=  $220 - 16$   
=  $204$   
Maximum Heart Rate Reserve = HR max – HR rest  
=  $204 - 72$   
=  $132$ 

To calculate the heart rate training zone in this, you have to find the maximum h eart rate first. This can be calculated by subtracting your resting heart rate from your maximum heart rate.

For the training to be fully effective, the training intensity should be between 60% and 75% of maximum heart rate reserve, which is between 150 and 171 beat per minutes (bpm)

Lower Training Threshold = 
$$0.6$$
 (Max HR reserve) + HR rest  
=  $(0.6 * 132) + 72$   
=  $151.2$  bpm  
Higher Training Threshold =  $0.75$  (max HR reserve) + HR rest  
=  $(0.75 * 132) + 72$   
=  $171$  bpm.

As I increase the time and number of repetitions I should also increase the heart rate level at which I work. I must also understand my training thresholds. I will do this by calculating my maximum heart rate and working out which training zone I am working at e.g. the speed -training zone. When my MHR is 60% I will be at the aerobic threshold training effect. When my MHR increases to 80% -90% I will be at the anaerobic threshold level. I will be changing my fitness training level from anaerobic -aerobic threshold. This means my training time will be longer and my recovery time will be shorter. A netballer would probably train like this during on -season.

The machine I will be using in my Personal Exercise Programme to train Weight training will be:



#### Leg Press:

Preparation: Sit on machine with back on padded support. Place feet on platform. Grasp handles to sides.

Execution: Push platform away by extending knees and hips. Return and repeat.



#### **Arm Curl:**

Preparation: Face low pulley and grasp stirrup cable attachment to one side with an underhand grip.

Execution: With elbow to the side, raise bar until forearms are vertical. Lower until arms are fully extended. Repeat. Continue with opposite arm.



#### **Hip Abductor:**

Preparation: Sit in machine with heels on bars. Pull in on lever to position legs toget her. Release lever into position and grasp bars to sides.

Execution: Move legs away from one another by abduction the hip. Return and repeat.



#### **Hip Adductor:**

Preparation: Sit in machine with heels on bars. Pull in on lever to position legs apart. Release lever into position and grasp bars to sides.

Execution: Move legs toward one another by adduction the hip. Return and repeat.

#### **Seated Quad Curl:**



Preparation: Sit on apparatus with back against padded back support. Place front of lower leg under padded le ver. Position knee articulation at same axis as lever fulcrum. Grasp handles to sides for support.

12.8 HR

Execution: Move lever forward by extending knees until leg are straight. Return lever to original position by bending knees.



#### **Seated Leg Curl:**

Preparation: Sit on apparatus with back against padded back support. Place back of lower leg on top of padded lever. Secure lap pad against thigh just above knees. Grasp handles on lap support.

Execution: Pull lever to back of thighs by flexing knees. Return lever until knees are straight



#### **Shoulder Press:**

Preparation: Sit on lever chest press machine or lie supine on incline bench with shoulders aligned with lever grips. Grasp lever grips with a shoulder width overhand grip and extend elbow.

Execution: Raise shoulders toward lever grips as far as possible. Lower shoulders to bench and repeat.



#### Pectoral Fly:

Preparation: Sit in machine with back on pad. If available, push foot lever until padded lever moves forward. Place forearms on padded lever. Position upper arms approximately parallel. Release foot lever.

Execution: Push levers together. Return until chest muscles are stretched.



#### **Abdominal:**

Preparation: Sit in machine with back against back support. If available, place lower legs under pads or on plate form. Grasp handles above and position back of arm against pads to each side.

Execution: With the hips stationary, flex waist so the elbows travel downward

The seasonal time I complete the Personal Exercise Programme would affect the final performance as they undergo a different training layout. If I were to complete this programme in the summer, I would have had a different outcome. This is due to Netball being a summer based sport, as I would be having Netball matches in the summer, whereas I do not have matches in the winter, when I did the Personal Exercise Programme.

Periodization promotes muscles strength and power, while decreasing the likelihood of an injury over training.

#### Warm up and Cool down:

#### Warm Up:

Warming up is a very important part of exercise. We need to do this to gradually raise the body's temperature and heart rate. This improves the exchanging of oxygen from haemoglobin, warms up the muscles, warms and loosens joints. The whole point of warming up is to prepare you for the main activity. The three main reasons for warming up are:

- To prevent injury, when more blood is running through the body you are less likely to be injured.
- To improve performance, like stretching for more flexibility.
- To prepare psychologically for the event, like mobility work.

Cardiovascular means working of the heart and blood vessels. This is the first part of the warm up and to get the heart working harder than normal, (raising heart rate) to get blood pumping around the body, faster and more efficiently and to prepare the body for the next phase of the warm up. We can do this in various ways, we can run, skip or cycle but it is dependent on what training I will be training and weather I am inside or outside; as I am inside I will be using the exercise bike, as it will increase my heart rate and body temperature.

The next phase of warming up is stretching. The muscles I will need for Netball are my leg muscles (Gastronomies, Quadriceps- Rectus Femoris, Vastus Lateralis, Vastus Medialis, Vastus intermedius, hamstrings- Biceps Femoris, Semitendinosus, and Semimembranosus) and arm muscles (Biceps and Triceps).

#### Tips for stretching

The aims of stretching are to gently lengthen muscles before and after exercise, and to improve tissue elasticity.

- Start with gradual mobility exercises of all joints, like rotating wrists; bend your arms, rolling shoulders. This helps the body's natural lubrication (synovial fluid) to protect the surface of your bones at these joints.
- Always warm up your body prior to stretching because this make s the muscles suppler.
- Stop immediately if you feel severe pain
- Remember, breathe regularly and rhythmically, do not hold your breath.
- Start with your legs, and work up the body, in order not to miss out any stretch.
- Never bounce stretch.

#### **Cool Down**

We cool down, so that the next day you do not get pains in your muscles that you used the day before. Cooling down helps to get rid of lactic acid, this builds up during anaerobic activity. My cool down will be for 5 minutes. I will be using the Ascent Climber f or my Cardio Vascular cool down, as it uses various muscles in my body, allowing the body to get rid of the lactic acid and other waste products that have built up in my body slowly at a gradual speed. You should make your stretches last at least between 8-10 seconds to be sure that you have got rid of lactic acid. Cooling down is basically the second phase of warming up, it is getting rid of the lactic acid that has built up in your body in order for you to be able to continue everyday activities.

#### Performing:

#### **Evaluation of Training Session:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

 As my fitness level improves, I can make the training more difficult by increasing a number of factors:

- -the weight in which I am lifting
- -the number of reps I am doing
- -the length of time spent resting in between each set completed
- -the number of complete sets done accurately.

Machine	Week 1	
Leg Press	70kg	
Arm Curl	30kg	
Hip Abductor	30kg	
Hip adductor	35kg	
Pectoral Fly	30kg	
Shoulder Press	20kg	
Seated Leg curl	45kg	After my first training session, I felt comfortable with what I
Seated Quad curl	30kg	had done, as it was the first week and I started easy.
Abdominal	15kg	Throughout the day, I felt no pain and was able to

continue my everyday activities; the next morning I was in a lot of pain. I was fee ling pain in my arms; biceps, triceps and in my pectorals. I found it hard to move freely and I was unable to do day-to-day basics, for example, lifting my school bag. I was in pain for a couple of days, during my free time, I would gently stretch the muscles that were in pain to try and gently release the tension. As I was stretching the muscles on a day-to-day basis, I could feel that they were in less pain and I was able to continue doing everyday basics.

For the next training session, I will be decreasing the weights on the Pectoral Fly, as I was experiences a great amount of discomfort for several days due to a too high weight. Due to this, I will be reducing the weights from 30kg to 15kg. I will not be changing any other weights as they are not too heavy and I do not want to rush into trying to carry heavier weights than my body can handle.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Machine	Week 2	
Leg Press	70kg	
Arm Curl	30kg	
Hip Abductor	30kg	
Hip adductor	40kg	
Pectoral Fly	15kg	
Shoulder Press	20kg	
Seated Leg curl	45kg	
Seated Quad curl	30kg	
Abdominal	15kg	After my second training session, I felt comfortable, and did not feel pain. Whilst doing my pectoral fly, I felt it was easier and hurt less

then the first week as it never hurt this time. I could feel my abdominals being worked whilst doing my weight on the abdominal machine. I felt more of a challenge on the hip adductors as I had increased the weight, but still felt comfortable. The next morning I felt comfortable, I was able to do everyday activities, with ease and felt no pain.

For the next session, I might increase the weights on the seated quad curl from 30 to 35kg, as I did not find it challenging, so if I increase the weights, I will work my muscles more and will be

challenging myself more. As I am progressing through the training I will work myself harder, in order to increase to my maximum potential.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Machine	Week 3
Leg Press	70kg
Arm Curl	30kg
Hip Abductor	35kg
Hip adductor	40kg
Pectoral Fly	15kg
Shoulder Press	20kg
Seated Leg curl	45kg
Seated Quad curl	30kg
Abdominal	15kg

After my third training session, I felt very comfortable with what I had done and felt no pain at the current time. As I had increased, the seated leg curls and was pleased with the session. The next day I felt no pain; this was an improvement on previous weeks as I had previously felt pain in my arms and lower legs.

For the next training session, I will not be increasing anything, as I will be missing a week due to half term, if I was to increase the weight on any machine, I may see reversibility taking place as well as feeling pain in my arms and legs. Therefore, in week 4, I will be starting with the machines I feel are easier and then work myself around onto the harder, yet challenging ones. I will also spread out the arm and leg ones, as I do not want to be putting extra pressure on my muscles leading to pain and discomfort.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Machine	Week 4
Leg Press	70kg
Arm Curl	30kg
Hip Abductor	30kg
Hip adductor	40kg
Pectoral Fly	15kg
Shoulder Press	20kg
Seated Leg curl	45kg
Seated Quad curl	30kg
Abdominal	15kg

After my fourth training session, I felt comfortable. During the session, I did not change and weight on the equipment I was using, as I had a week break due to half term and was unable to continue my weekly work out. As a result, to this week missed, I thought I might experience some form of reversibility, as my muscles were not use to the weight. I felt no extra pressure and felt there was no reversibility-taking place. I had to take it easy on the arm curls as I had a slight injury in my hand, as I was experiencing sudden pain in the wrist. I did not want to develop the injury more; therefore, I reduced the reps I did from 12 to six. This was so I could do the weight and not feel too much pressure.

For the next weeks session I will be increasing the weight on the Hip Adductor from 40 to 45kg, Hip Abductor 50 to 55kg, seated leg curl from 45 to 60kg and the Abdominal from 30 to 40kg. I will be increasing the following as I did not find them challenging this week, and was working with ease and not a lot of effort. By increasing the weights, I will have to put a lot more effort in.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Week 5 Machine Leg Press 70kg Arm Curl 30kg Hip Abductor 35kg Hip adductor 45kg Pectoral Fly 15kg Shoulder Press 20kg Seated Leg curl 60kg Seated Quad curl 30kg Abdominal 20kg

After my fifth training session, I was pleased with my progress, as I was able to increase weight on the machines and continue my workout. As I had increased weights on the Hip abductor, Hip adductor, Seated leg curl, Abdominal I found it a bit more challenging as I had increased the weight on several machines. I found it a little challenging, but not to an extr eme where I felt pain. I had to take it easy on the seated quad curl as had hurt my ankle, and did not want to risk further injury. I done two sets and then stopped as I was finding it hard, as it was putting excess pressure on my ankle. After the session, I felt some pain in my ankle as I felt I had worked my ankle too hard on the Seated Quad Curl. As it was hurting I used R.I.C.E, I rested it, compressed it, ice it and Elevated. After that process, I felt less pain and was able to continue my everyday activities.

For the next session, I will be increasing the weights on the Abdominal from 20 to 25kg. I increased this, as I could not feel it was working my abdominals in the session. I will be keeping all the weights the same as I can feel they are working my muscles and find them challenging at the end of each set. I will also be increasing the weight on the Hip Abductor from 30 to 35kg; this will be a challenge as it is the first time I am increasing the weights. As I have had injuries for the last 2 training sessions, I am hoping I will be 100% fit for week 6 of my training programme.

#### **Evaluation:**

 Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching  Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.

- 5 minutes on the stepping machine on level 6 to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Week 6 Machine Leg Press 70kg Arm Curl 30ka Hip Abductor 30ka Hip adductor 45kg Pectoral Fly 15kg **Shoulder Press** 20kg Seated Leg curl 60kg Seated Quad curl 30kg Abdominal 25kg

After my sixth training session, I was able to be fully confident with what I had done as I felt I was 100% fit, and felt that the workout had been reflected in the way I felt. I felt I had worked myself the hardest in this week over all the other weeks. I feel this may have been because I was enjoying myself more with what I was doing and I was feeling 100% fit. I feel as if I could push myself more with the weights that I was doing on the machines, therefore I decided to increase the weights. I had increased the weights on the abdominal from 20 to 25kg in the session and felt it was more challenging and was working my abdominals more efficiently. The increase on the hip abductor was challenging and it enabled me to feel it working.

For the next session, I will be increasing the weights on the hi p adductor from 45 to 50kg the pectoral fly for the first time from 15 to 30kg, the seated quad curl also for the first time from 30 to 45kg and the abdominal for 2 consecutive weeks from 25 to 30kg. I am going to be increasing the weight on these machines, as I feel comfortable and felt that I can work myself harder than I currently am. This will challenge me more as I have decided to increase the wei ghts on four different machines, which work different parts of the body.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Week 7 Machine Lea Press 70ka Arm Curl 30kg Hip Abductor 35kg Hip adductor 50kg Pectoral Flv 15kg **Shoulder Press** 20kg Seated Leg curl 60kg Seated Quad curl 45kg Abdominal 30kg

After my seventh training session, I was very pleased with my performance as I completed the session, with the increased weights comfortably. I thought i may struggle with the weight on the Abdominal before the session began as I had increased the weights

for two consecutive weeks, but whist doing the weights I felt comfortable, and was pleased with my performance as I could feel the weights were working. After the session, I fe It a slight bit of pain in my arms after doing the Pectoral Fly, but as I fully cooled down the pain slowly started to decrease. the seated Quad Curls was challenging as it was the first time I had increased the weights on it, and as the increase was quiet large, it challenged my body more after completing the session I was pleased with my overall performance.

For the next training session, I will not be increasing the weights on any of the machines except the Pectoral Fly. This was pleasing as I had started my 1st training session with the weight at 30kg, and as the weeks have progressed I have been able to increases the weight back to 30kg and continue the work out. I will not be increasing the weights on any of the other machines as I increased most of them last week, to a challenging amount, and do not want to do myself an injury by increasing them more this week.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a part ner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Week 8
70kg
30kg
30kg
45kg
15kg
20kg
60kg
30kg
25kg

After my eighth training session, I was pleased with what I had completed, as I was able to complete the session fully. As I did not change a large amount of my training session, I was able to complete it with ease. I still felt the weights were challenging my body, but felt I could do them a bit easier as I had use them over the weeks. I could feel the Abdominals was working, as I could feel it a lot, and as I had increased it for three consecutive weeks it felt as if it was working more. I was pleased after I had completed the Pectoral Fly as I felt it would be a challenge as I struggled on the weights previously, but was very pleased after the session, as I did not feel any pain after it.

For the next training session, I will be increasing the weights on the Shoulder Press for the first time, from 20-30kg. I will be increasing the weight as I feel that it is not working my arms and shoulders to there maximum, therefore feel they could do more work, without feeling a great amount of extra pressure. I will not be increasing the weights on the other machines as I feel they are still challenging me.

#### **Evaluation:**

 Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching  Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.

- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

Machine Week 9 Leg Press 70kg Arm Curl 30kg Hip Abductor 35kg Hip adductor 50kg Pectoral Fly 15kg Shoulder Press 30kg Seated Leg curl 60kg Seated Quad curl 45kg Abdominal 30kg

After my ninth training session, I felt as if I had had a full training session, as I felt I had worked hard to complete the weights and stretching to the best of my ability. After the session, I felt that the training was working, and was pleased with what I had completed. As it was the first time, I was increasing the weights on the Shoulder Press I thought I may experience a little dis comfort, but was pleased when I did not. I felt that the weights were challenging my body and I was happy with my progression after fully completing the sets. I was enjoying the training sessions more, as the weeks went on, and as I began to enjoy the sessions more. I was able to use this to motivate me more and to push myself that one bit more.

For the next training session, I will not be increasing the weights on any of the machines. I feel comfortable with what I am doing and do not want to overload myself. As this will be my last week, I do not want to overload myself and put excess weight when it is not required. I also fell that the weights are still challenging me enough to continue on these weights.

#### **Evaluation:**

- Warm up: 5 minutes cardio vascular on the bike Mobilising joints and fully stretching
- Main Work out: I will be using the following machines and will start at the weights stated below, but as I progress through the weeks, I will increase the weights as and when I feel comfortable.
- 5 minutes on the stepping machine on level six to start.
- 20 minutes stretching, supported with a partner for extra support, pressure and help.
- Cool Down: 5 minutes cardio vascular to gently cool down the muscles and get rid of lactic acid, fully stretching and mobilising joints.

After my tenth and final training session, I was able to feel that I had worked myself hard over the last 9 weeks, and could feel that the training had been working. It had built up the strength, not just in my arm or legs, but also in my whole body. I could feel that the training had worked my main component Muscular Endurance and I was pleased with that. I felt I could have had a mor e intense stretching session if I had found more stretches that are active. I did not feel that I pushed myself to my maximum potential, and if I had done so, I could have gone onto heavier weights on the machines. As the weeks progressed and I increased the weights steadily, I was able to feel comfortable with what I was doing.

Week	1	2	3	4	5	6	7	8	9	10
Leg Press	70kg									
Arm Curls	30kg									

1 1101 1 up ul 1 y u	1 12 1 21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							12.0 1111			
Hip Abductor	30kg	30kg	30kg	30kg	35kg	35kg	35kg	35kg	35kg	35kg	
Hip Adductor	35kg	40kg	40kg	40kg	45kg	45kg	50kg	50kg	50kg	50kg	
Pectoral Fly	30kg	15kg	15kg	15kg	15kg	15kg	30kg	30kg	30kg	30kg	
Shoulder Press	20kg	20kg	20kg	20kg	20kg	20kg	20kg	20kg	30kg	30kg	
Seated Leg Curls	45kg	45kg	45kg	45kg	60kg	60kg	60kg	60kg	60kg	60kg	
Seated Quad Curls	30kg	30kg	30kg	30kg	30kg	30kg	45kg	45kg	45kg	45kg	
Abdominal	15kg	15kg	15kg	15kg	20kg	25kg	30kg	30kg	30kg	30kg	

As you are able to see from the table above, I was able to increase and decrease t he weight when I needed to. I felt the need to increase the weight in the first training session on the Pectoral Fly as it was too intense. There after I was able to increase the weight on two machines for the next training session. In week two I did not increase any of the weights as my body was still adjusting to the new weights and did not want to cause myself an injury by overloading my body too quickly. I also did not increase the weight between week three and week four as it was half term and I may fi nd reversibility taking place on my return. In week five, I felt very comfortable with most of the weight that I was doing, therefore increased the weights on four of the machines. I felt this would be challenging but enjoyable, as I was more motivated and was enjoying the sessions more.

I am playing and I am starting to make fewer mistakes in my passing and shooting skills. I also seem to be more effective under the basket when rebounding. However I still feel I need to develop my upper body strength. I found the evaluation of each session useful and will continue to do this in the future, not only for training but matches to make my goal setting more effective. The Personal Exercise Programme helped my levels of motivation as I wanted to constantly strive for improvement as well as my levels of concentration. Because I was getting tired I found I had to focus on the technique and I have started to transfer this to the game situation which has helped my skill performance. I will continue to include weight training into my overall programme and aim to gradually increase the work intensity, after reducing the recovery time between the different weights.

#### Warm Up:



For best results, push against a wall.

#### **Calf Correct Foot Position**

Foot alignment should be shoulder width apart; you can confirm this by standing either side of a straight line on the floor.

When you take your rear foot back, it should not cross or move away from the midline, your foot should be pointing forward with your heel either flat on the floor, or raised if aiming to develop the stretch.

Your front leg should bend so that when you look down over your knee, you can see the tip of your toes. Lean forward aiming to keep a straight line with your heel, hip and head.

#### Soleus

- 1. Stand with both feet flat on the floor, pointing forward, half a stride apart.
- 2. Keeping your back straight, with your hands on your hips, exhale and lower yourself down, resting your bodyweight on the rear foot.





### Normal Stretch

- 1. Stand with your feet shoulder-width apart, one foot extended half a step forward.
- 2. Keeping the front leg straight, bend your rear leg, resting both hands on the bent thigh.
- 3. Slowly exhale, aiming to tilt both buttocks upward, keeping the front leg straight, and both feet flat on the floor, pointing forward.
- 4. Inhale slowly, and relax from the stretch. Repeat the stretch again, this time beginning with the toes of the front foot raised toward the ceiling, but keeping the heel on the floor.

#### **Quadriceps Standing**

- Stand holding onto a secure object, or have one hand raised out to the side for balance.
- 2. Raise one heel up toward your buttocks, and grasp hold of your foot, with one hand.
- 3. Inhale, slowly pulling your heel to your buttock while gradually pushing your pelvis forward.
- 4. Aim to keep both knees together, having a slight bend in the supporting leg.



## 1. Sta

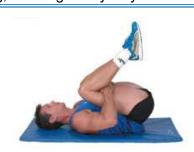


- 1. Stand upright, with both feet facing forward, double shoulder-width apart.
- 2. Place your hands on your hips, in order to keep your back straight, slowly exhale, taking your bodyweight across to one side.
- 3. Avoid leaning forward, or taking the knee of the bent leg over your toes. As you increase the stretch, the foot of the bent leg should point slightly o utward.
- 4. To increase the stretch, relax upward, slowly sliding your feet out a few inches to the sides.



- 1. Lie on your back, extending your left arm out to the side, while taking your left leg over your right, bringing the knee inline with the hips.
- 2. Keeping your right leg straight, use your right arm to push down on the knee of the left leg, exhaling slowly as you stretch.





#### **Fatal Position**

- 1. Lie on your back, keeping your head on the floor.
- 2. Slowly pull both legs into your chest, and secure them there by wrapping your arms around the back of your knees.
- 3. Exhale, pulling down on your legs while gradually lifting your buttocks off the floor.
- 4. You can stretch your neck, once in this position, by slowly tilting your chin to your chest.

#### Spine curve

- 1. Begin the stretch by laying on your front, with your hands close to your chest, fingers pointing upward.
- 2. Exhale, pushing yourself up with your arms and contracting your buttocks while keeping both feet firmly on the floor.
- 3. Look up toward the ceiling, to also feel the stretch in your neck.

#### Lower Back-Cat Stretch

- 1. Adopt a position on all fours; point your fingers forward and your toes behind.
- 2. Start with a flat back, and then drop your head downward, pushing your shoulder blades upward and outward as you elevate your upper back.





## Elbows Back

- 1. Stand or sit up right, keeping your back straight, head looking forward.
- 2. Place both hands on your lower back, fingers pointing downward, elbows out to your side.
- 3. Exhale slowly while gently pulling the elbows back, aiming to get them to touch.

#### **Shoulder Strangle**

- 1. Cross one arm horizontally over your chest, grasping it with either your hand or forearm, just above the elbow joint.
- 2. Exhale, slowly pulling your upper arm in toward your chest.
- 3. Aim to keep the hips and shoulders facing forward throughout the stretch.



#### **Bicep-Wall Stretch**

- 1. Place the palm, inner elbow, and shoulder of one arm against the wall.
- 2. Keeping the arm in contact with the wall, exhale and slowly turn your body around, to feel the stretch in your biceps and chest.
- Adjust the hand position either higher or lower and repeat to stretch the multiple biceps and chest muscles.

#### Hand Down Spine

- 1. Extend one hand down the centre of your back, fingers pointing downward.
- 2. Use the other hand to grasp the elbow.
- 3. Exhale slowly, pulling gently downward on your elbow, aiming to take your fingers along your spine.





#### **Upward Stretch**

- 1. Extend both hands straight above your head, palms touching.
- 2. Inhale, slowly pushing your hands upward, then backward, keeping your back straight.
- 3. Exhale and relaxing from the stretch before you repeat.

#### Chin to Chest Front

- 1. Place both hands at the rear of your head, fingers interlocked, thumbs pointing down, elbows point straight ahead.
- 2. Slowly exhale, pulling your head downward, aiming for your chin to touch your chest.
- 3. Concentrate on keeping your back straight, with your shoulders down and back.
- 4. Relax your hands, and inhale as you lift your head.



#### **Cool down Stretches:**

#### Lying Straight, Leg to Chest

- 1. Lie comfortably on your back, concentrating on keeping both your head and buttocks in contact with the floor.
- 2. Slowly extend one leg upward, grasping it with both hands, either around the calf, the hamstrings, or a combination of both.
- 3. Aim to pull your leg toward your chest, keeping it straight. When the tension builds up in your hamstrings, relax the stretch a little by contracting your quadriceps on the same leg.
- 4. If necessary, use a towel wrapped around your foot, in order to keep your head on the floor.

#### Toe Grab

- 1. Begin this stretch with your heels together, holding both feet with your hands.
- 2. Lean forward from your hips, gradually increasing the stretch by bringing your heels closer to your groin, and your chest closer to your feet.
- 3. Make the movements small and controlled. Avoid bouncing and excessive upward pressure on your feet.





#### One Leg Over

- 1. Sit on the floor, with one-leg straight, toes pointing upward.
- 2. Cross the other foot over the knee of the straight leg, aiming to place that foot flat on the floor.
- 3. Place the elbow and forearm of the opposite arm of the bent leg on the outside of the bent knee.
- 4. Exhale, slowly pulling the bent knee across your body.

#### Looking at Ceiling

- 1. Begin the stretch by kneeling on the floor, holding your heels with both hands.
- 2. Slowly exhale, lifting your buttocks up and forward while taking the head backward, in order to arch the back.





### **Lying Trunk Twists**

- 1. Lie flat on your back, with both hands extended straight out to your sides.
- 2. Slide both legs up towards one arm, aiming to keep the knees together, whilst allowing your lower body to naturally twist around.
- 3. Can be performed with either bent or straight legs.

#### Upper Back-Leg Grab

- 1. While seated, exhale, bending forward, and hugging your thighs underneath with both arms.
- 2. Keep your feet extended out as you pull your chest down onto your thighs, keeping both knees together.
- 3. While in this position, you can also stretch your rhomboids, by aiming to pull your upper back away from you knees while still grasping your legs.





### One Arm Against the Wall

- 1. Place your forearm and biceps against a wall, keeping the arm at right angles.
- 2. Exhale, slowly turning your opposite shoulder backward, keeping the other arm firmly in contact with the wall.
- 3. Repeat this stretch both raising and lowering the walled arm, in order to work the different pectoral muscles.

#### **Upper Back Prayer**

- 1. From a kneeling position, extend both hands out, fingers pointing forward.
- 2. Use your hands and forearms to grip the floor, as you gently ease your buttocks backward, until you feel the stretch in your upper back and shoulders.
- 3. Exhale, gently easing your chest down toward the floor.



#### Lying Neck Pull

- 1. Lie on your back, with both legs bent, feet firmly flat on the floor.
- 2. Grasp the back of your head with your fingers, resting your palms on the top of your head.
- 3. Exhale, slowly pulling your chin down toward your chest, and aiming to keep your upper back in contact with the floor.



Appraisal Evaluation: Whilst monitoring my training over the 10 -week period I was able to see a gradual increase in improvement. I was able to use my body strength more, as I was able to lift heavier weights. As I began to adapt to the training sessions over the weeks my motivation levels increased, as I was able to enjoy what I was doing more, as you begin to enjoy what you are doing, you do it with more effort and determination, to fully succeed and c omplete the activity to your maximum potential.

The Personal Exercise Programme seems to have had an overall positive impact on me, and my body, as I an able to do the basic day-to-day activities more efficiently and quickly. I am also able to lift heavier objects when required more easily, with less hesitation and pain.

#### **Appraisal of Personal Exercise Programme:**

Discussion of application of principles of training:

<u>Specificity:</u> every type of exercise has a particular effect on the body. The type of traini ng we choose must be right for the type of improvement we want to see. Over the 10 weeks I have been focusing on training Muscular Endurance and Flexibility, I have been able to see that as I progress through the weeks I have been using the right equipment to train the components and have been using them in the right way.

<u>Progression:</u> the body takes time to adapt to more or harder exercise. We must build up the stress on our bodies in a gradual or progressive way to help them adapt to the new working condit ions. Over the 10 weeks, I have slowly increased the weights on the machines. I have gradually increased them as I fell my body is able to adapt to the weight as I fell less strain when doing the weights previously.

Overload: to improve the fitness of our body system we need to work them harder than normal. The body will than adapt to the extra stress and will become fitter. Overload may occur when you have not fully adapted to the working conditions/ weights being used. You will put extra pressure on the m to help the muscles adapt to the extra weight. As the body works harder it becomes more adapted to the working conditions and helps the body become fitter, and at a quicker rate. I felt I had overloaded my body in the first week, as I did not fully adapt to the weights I was using, and felt the weight on the Pectoral fly was too much; therefore I decreased the weight, and once I had adapted to the conditions increased the weight again.

**Reversibility:** our bodies adapt to the stress of exercise by becoming fitter. In the same way, we quickly adapt to less exercise by losing fitness. I may have experienced reversibility in between week 3 and 4, as there was a week's break in between. I did not feel that reversibility had taken place, but it may have taken place without me and my body fully realising.

<u>Tedium:</u> our training programme must be varied to avoid boredom. By using a variety of different training methods or weights, i will keep my enthusiasm and motivation up. By using, a number of different machines to train different components our body does not get bored as easily.

<u>Using FITT:</u> as I progress through the weeks, the frequency of the activities that I will be doing will increase steadily. When increasing the frequency of weights, I will be increasing the intensity, as I will be working harder in order to improve, and complete each set fully. The time will not really affect my personal exercise program as I have a long period of time in which I am able to complete the training session. I could increase the time spent on the Exercise bike in my warm up and the Ascent Climber in the cool down to see if it improves my stamina on the side, but I will be mainly focusing on Muscular Endurance and Flexibility.

As the intensity increase I found I was able to c ontinue with what I was doing as I had got my body frequently use to it and did not feel much extra strain when doing it. If I were to increase the intensity further I would train 3-4 times a week. I would also increase the time I spent at the gym. I spent 1 hour 30 minutes but if I were to do it, again I would spend 2 -3 hours. By increasing the frequency, I would be able to increase the weight more efficiently as I am used to the weight I would be using, and would be able to adapt to the weights quicker.

#### Justification:

Looking back at the aim of my Personal Exercise Programme I feel I have fulfilled a part of the aim, as I did improve my Muscular Endurance factors; but failed to improve Flexibility.

I feel I overloaded myself on the Pectoral Fly, as I we nt straight into the training at 30kg. I felt a great amount of pain and discomfort; therefore, I decreased the weight down to 15kg. Once continuing with the following training session I felt comfortable and was pleased with my performance.

I feel I may have applied the Flexibility factor wrong, as I was not able to improve on the Sit and Reach test. I could have trained flexibility differently, as I may have not trained it fully correctly.

I think I made the Personal Exercise Programme effective whilst u sing the principles of training, as I was able to use the main ones and like them in fully with the Personal Exercise Programme. I felt that I had done enough warm up and cool down to prevent any injuries, prepare my body for exercise and aid recovery. I also feel I progressed well over the Personal Exercise Programme with the weight training I was doing, and number of repetitions and sets completed, as I was able to adjust both, when I needed to during my weight training.

If I were to do the Personal Exercise Programme, I would change a few factors related to the Personal Exercise Programme. The aspect I would change would be the principles of F.I.T.T. Firstly, I would change the season in which I did the Personal Exercise Programme in. as I did the Personal Exercise Programme in the winter, when the Netball season is closed. The Personal Exercise Programme did not make a full effect on my performance, as I have not been able to see a change in my performance. This could be because I have not had any matches and have not been able to see if I have improved my performance. If I was to do the Personal Exercise Programme in the summer season, I would be able to see a noticeable progression immediately, as I would be training as it is the Netball season.

Secondly, I would change one of the factors that I am training. I would not train Flexibility again, as I was unable to improve it, and show that it is a factor that you are able to improve and measure easily. I would change that factor and train Power. Power is a large part of Netball. I need power for when I am passing the ball to players within my team, as well as when I am shooting. I need to know how much power to put into my shot to score. I would be able to train power at the gym as I will have all the equipment I will require. I can also test power easily with the Wingate cycle test, before and after the Personal Exercise Programme.

Finally, I would change the frequency in which I visited the gym. During the Personal Exercise Programme, I only used the gym facilities once a week. If I were to do the Personal Exercise Programme, again I would train 3-4 times a week. I would also increase the time I spent at the gym. I spent 1 hour 30 minutes at the gym during this Personal Exercise Programme, but if I wer e to do it, again I would spend 2-3 hours. By increasing the frequency, I would be able to increase the weight more efficiently as I am used to the weight I would be using, and would be able to adapt to the weights guicker.

Overall, I was pleased with the outcome of the Personal Exercise Programme, and enjoyed it, as I become more motivated and determined to fully complete the session to the best of my ability.

#### Bibliography:

- AS PE for AQA Nesta Wiggins, Rob James, Graham Thompson
- www.exrx.net/Muscles
- www.docsgym.net
- www.trackmasterfitness.com
- www.innofitinc.com/ images
- www.donoliver.co.nz/ images
- www.mines.edu
- www.magnumfitness.com
- www.promaximamfg.com
- www.halftimefitness.com