



NOTTINGHAM FOREST ACADEMY

# U23 Off-Season Physical Development Programme



**NOTTINGHAM FOREST ACADEMY**

**Nutritional Support**



## KNOWLEDGE MAP

### BACKGROUND

### BOOSTING YOUR IMMUNE SYSTEM

There are many nutrients that are involved with the normal functioning of the immune system, so we would encourage maintaining a healthy balanced diet in order to support immune function. We don't recommend any one food over another, but instead encourage eating a variety of foods to maintain a healthy balanced diet. This knowledge map has been created to provide a quick guide regarding foods & supplementation that may contribute to, and support a healthy immune system.

### EVERYDAY FOODS TO SUPPORT YOUR IMMUNE SYSTEM



#### ANTIOXIDANTS

Fruit & vegetables have beneficial effects on health due to the presence of vitamins and minerals. These and antioxidants help maintain immunity and reduce inflammation in the body. They also play key role in the bodies resistance and tolerance to immune health.

#### EAT A RAINBOW A DAY

Variety is important. Different coloured fruits and vegetables contain their own combination of vitamins, minerals and fibre. To get the most benefit, try to eat one portion from each colour group per day. Choose from red, green, yellow, white, purple and orange varieties of fruits and vegetables every day.



#### VITAMIN D

Vit D is essential to promote healthy bones and support your immune system. Vit D can be obtained through food sources such as eggs, fortified cereals and oily fish, but is predominantly synthesised in the skin through exposure to sunlight.

Vit D deficiency is common throughout the UK, as a result of a low level of exposure to sunlight - especially during times of isolation! Where possible, train outside as your 1 trip out per day . Aim to do this during the hours of 11am to 3pm when sun exposure is at its highest (to follow government guidelines).

#### FOODS HIGH IN VITAMIN D



#### VITAMIN C

Vitamin C is an essential micronutrient for humans. It is a potent antioxidant and contributes to immune defense by supporting various cellular functions of the immune system. Some studies have indicated that vitamin C intake of 200mg (2 large oranges) per day is effective in reducing the onset, severity and duration of the common cold.

#### FOODS HIGH IN VITAMIN C



#### PROBIOTICS

There are trillions of bacteria contained within the human body, with a healthy gastrointestinal tract home to approximately seven trillion live bacteria that play a number of important roles, including providing support for the normal function of the digestive system and in the promotion of immune response. Healthy gut bacteria help us to digest food and extract the vitamins, minerals and nutrients we need to stay healthy. Foods high in probiotic cultures include yoghurt, kefir & probiotic drinks.



#### FUEL. REPAIR. HYDRATE

Make sure you consume an *adequate* amount of carbohydrate to meet your daily energy requirements. As carbohydrate is the predominant fuel source for the immune system, a negative energy balance and insufficient amount of carbohydrate in the diet, can lead to immune suppression.

Your fuelling requirements will differ based on your daily training schedule so always ensure to be fuelling & recovering with appropriate nutrition. In general, you should consume low glycemic index (GI) carbs. Low GI foods are broken down slowly and release blood sugar steadily. Please see 'Low GI food graphic' for examples of low GI food items.

Ensure you consume optimal amounts of protein in your diet. Proteins are used to produce and replicate many different immune cells and are very important during times of reduced training to help protect and keep lean mass.. Aim for 1.8-2g of protein per kg of body weight. Also try and consume protein regularly throughout the day, every 3 hours ideally, and ensure a good source of protein is consumed before bed (i.e. a glass of milk)

Drinking fluids during exercise will help to maintain saliva flow rate. Saliva contains many antibacterial properties, and is one of our first lines of defence against germs.

#### SUPPLEMENTATION & COVID-19











To date, there are no specific foods or supplements that will prevent you catching a particular virus or illness. Good hygiene practice remains the best means of avoiding infection. To date, the European Food Safety Authority have not authorised any claim for a food or food component in the UK to be labelled as protecting against infection. Where possible, we always advise that you support your overall health & immunity through the regular intake of high quality whole foods.

However, if access to high quality foods is not always possible & additional supplementation be required to support your daily diet, we advise that you choose your supplementation from our preferred suppliers (below) to help safeguard you from the risk of inadvertent doping. If you are taking prescribed medication, always consult our doctor before taking supplementation.

# Nutrition



**BELOW ARE EXAMPLES OF LOW GI CARBS AND OTHER NUTRIENTS THAT YOU COULD INCLUDE AS PART OF YOUR DAILY NUTRITION**

BREAD	BREAKFAST CEREALS	FRUIT	VEGETABLES	STARCHY CARBOHYDRATES
 <p><i>Whole grain, multigrain, rye and sourdough varieties</i></p>	 <p><i>Porridge made with rolled oats, bircher muesli and All-Bran</i></p>	 <p><i>Apples, strawberries, apricots, peaches, plums, pears and kiwi</i></p>	 <p><i>Carrots, broccoli, cauliflower, celery, tomatoes</i></p>	 <p><i>Sweet potatoes with an orange flesh, corn</i></p>
LEGUMES	PASTA AND NOODLES	RICE	GRAINS	DAIRY
 <p><i>Lentils, chickpeas, baked beans, butter beans, kidney beans</i></p>	 <p><i>Spaghetti, long grain rice, instant noodles, tortellini</i></p>	 <p><i>Basmati, brown rice</i></p>	 <p><i>Quinoa, barley, pearl couscous, buckwheat, semolina</i></p>	 <p><i>Milk, cheese, yogurt, soy milk, almond milk</i></p>



**NOTTINGHAM FOREST ACADEMY**

**Schedule**

# Schedule

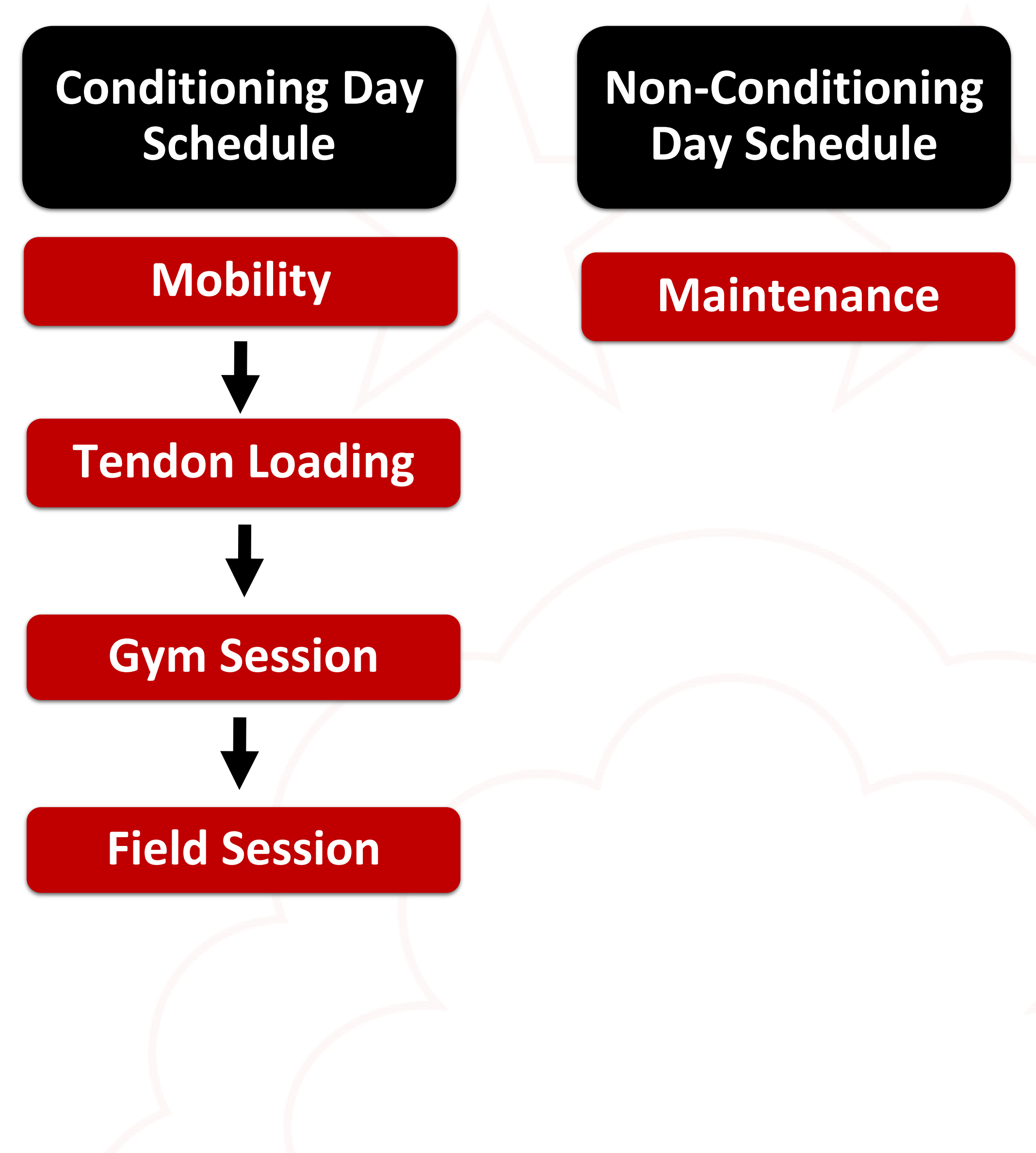


Monday 30 <sup>th</sup>	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Mobility 1 Tendon 1 Strength 1	Maintenance 1	Mobility 2 Tendon 2 Strength 2	Maintenance 2	Mobility 3 Tendon 3 Strength 3		
Monday 6 <sup>th</sup>	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Mobility 1 Tendon 1 Strength 1	Maintenance 1	Mobility 2 Tendon 2 Strength 2	Maintenance 2	Mobility 3 Tendon 3 Strength 3		
Monday 13 <sup>th</sup>	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Mobility 1 Tendon 1 Strength 1	Maintenance 1	Mobility 2 Tendon 2 Strength 2	Maintenance 2	Mobility 3 Tendon 3 Strength 3		
Monday 20 <sup>th</sup>	Tuesday 21 <sup>st</sup>	Wednesday 22 <sup>nd</sup>	Thursday 23 <sup>rd</sup>	Friday 24 <sup>th</sup>	Saturday	Sunday
Mobility 1 Tendon 1 Strength 1	Maintenance 1	Mobility 2 Tendon 2 Strength 2	REST	Return Date		

# Daily Schedule



- Follow the format of the prescribed schedule to the best of your ability for better adaptations.
- Always warm up properly prior to sessions.
- Do not continue any exercise if you feel pain at any point.
- Increase/decrease weight as you see fit, however make sure specified reps are completed.
- Maximal effort on all reps.





**NOTTINGHAM FOREST ACADEMY**

# **Physical Development**

## **Session 1**

# Mobility Session 1



Exercise	Sets	Reps
<a href="#">90/90 Opens</a>	3	30s Each Side
<a href="#">Banded Ankle Range</a>	3	30s Each Side
<a href="#">Groin Flow</a>	3	30s Each Side
<a href="#">Quadrant Rotations</a>	3	30s Each Side
<a href="#">Hamstring Rocks</a>	3	30s Each Side

Click Exercise Name For Video Example

# Tendon Loading 1



Exercise	Sets	Reps
<a href="#">Calf Raise Iso Hold</a>	3	5 (Each Side) 5s (Hold)
<a href="#">Banded Hip Flexor Hold</a>	3	3 (Each Side) 10s (Hold)
<a href="#">Single Leg Hamstring Bridge Hold</a>	3	3 (Each Side) 10s (Hold)
<a href="#">Running Man Adductor</a>	3	3 (Each Side) 10s (Hold)
<a href="#">Side Plank Leg Raises</a>	3	10 Each Side

Click Exercise Name For Video Example

# Strength Session 1



Exercise	Week 1	Week 2	Week 3	Week 4
Section 1				
<a href="#">Spilt Stance Broad Jump</a>	3 x 3	3 x 3	3 x 4	3 x 4
<a href="#">Hex-Bar Squat Jump</a>	3 x 3	3 x 3	3 x 3	3 x 3
<a href="#">Plate Drop-Step Squat</a>	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)
<a href="#">Plate Dead Bugs</a>	3 x 8	3 x 8	3 x 8	3 x 8
Section 2				
<a href="#">Hex-Bar Squat</a>	3 x 10	3 x 10	3 x 8	3 x 8
<a href="#">DB Bench Press</a>	3 x 10	3 x 10	3 x 8	3 x 8
<a href="#">Pull Ups (Underarm)</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
Section 3				
<a href="#">BB Step Up</a>	3 x 5	3 x 5	3 x 5	3 x 5
<a href="#">HK Landmine Press</a>	3 x 8 Each Side	3 x 8 Each Side	3 x 8 Each Side	3 x 8 Each Side
<a href="#">BB Bent Over Row</a>	3 x 10	3 x 10	3 x 8	3 x 8
Section 4				
<a href="#">Band Press Up</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">HK Pull Down</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">DB Bicep Curl</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure

Click Exercise Name For Video Example



**NOTTINGHAM FOREST ACADEMY**

# **Physical Development**

## **Session 2**

# Mobility Session 2



Exercise	Sets	Reps
<a href="#">90/90 Sweeps</a>	3	30s Each Side
<a href="#">Ankle EOR Rocks (DB)</a>	3	30s Each Side
<a href="#">Band Frog Rocks</a>	3	30s Each Side
<a href="#">Greatest Stretch</a>	3	30s Each Side
<a href="#">Hamstring Extenders (MHFAKE)</a>	3	30s Each Side

Click Exercise Name For Video Example

# Tendon Loading 2



Exercise	Sets	Reps
<a href="#">Spilt Stance Plate Iso Hold</a>	3	5 (Each Side) 5s (Hold)
<a href="#">KB Leg Lowers (Short Lever)</a>	3	6 (Each Side)
<a href="#">Elevated Hamstring Holds</a>	3	20s
<a href="#">Adductor Lifts</a>	3	6 (Each Side)
<a href="#">Gym Ball Iso Holds</a>	3	3 (Each Side) 10s (Hold)

Click Exercise Name For Video Example

# Strength Session 2



Exercise	Week 1	Week 2	Week 3	Week 4
Section 1				
<a href="#">Lateral Pogo</a>	3 x 8	3 x 8	3 x 8	3 x 8
<a href="#">Loaded Drop Jump</a>	3 x 4 (Each Side)	3 x 4 (Each Side)	3 x 4 (Each Side)	3 x 4 (Each Side)
<a href="#">Plate Lunge Cycle</a>	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)
<a href="#">Half Kneeling DB Holds</a>	3 x 15s (Each Side)	3 x 15s (Each Side)	3 x 20s (Each Side)	3 x 20s (Each Side)
Section 2				
<a href="#">DB Lateral Lunge</a>	3 x 10	3 x 10	3 x 8	3 x 8
<a href="#">Incline DB Bench Press</a>	3 x 10	3 x 10	3 x 8	3 x 8
<a href="#">Pull Ups (Wide Grip)</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
Section 3				
<a href="#">Hip Thrust</a>	3 x 5	3 x 5	3 x 5	3 x 5
<a href="#">BB Military Press</a>	3 x 8	3 x 8	3 x 8	3 x 8
<a href="#">DB 2 Point Row</a>	3 x 10	3 x 10	3 x 8	3 x 8
Section 4				
<a href="#">Kneeling Band Press</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">Elevated Inverted Row</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">Plate Raises</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure

Click Exercise Name For Video Example



**NOTTINGHAM FOREST ACADEMY**

# **Physical Development**

## **Session 3**

# Mobility Session 3



Exercise	Sets	Reps
<a href="#">90/90 Flow</a>	3	30s Each Side
<a href="#">Kneeling Plate Ankle Range</a>	3	30s Each Side
<a href="#">Kneeling Adductor Rocks</a>	3	30s Each Side
<a href="#">T-Spine Rotations (Deep Squat)</a>	3	30s Each Side
<a href="#">Diagonal Hamstring Rocks</a>	3	30s Each Side

Click Exercise Name For Video Example

# Tendon Loading 3



Exercise	Sets	Reps
<a href="#">BB Calf Raises</a>	3	6
<a href="#">Slider Reverse Lunge</a>	3	6 (Each Side)
<a href="#">Hamstring Switches</a>	3	6 (Each Side)
<a href="#">Adductor Squeezes Cycle</a>	3	10s (Each Position)
<a href="#">Glute Bridge Marches</a>	3	8 (Each Side)

Click Exercise Name For Video Example

# Strength Session 3



Exercise	Week 1	Week 2	Week 3	Week 4
Section 1				
<a href="#">Forward Pogo</a>	3 x 8	3 x 8	3 x 8	3 x 8
<a href="#">Hex-Bar CMJ</a>	3 x 4	3 x 4	3 x 4	3 x 4
<a href="#">Plate Unilateral Cycle</a>	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)	3 x 3 (Each Side)
<a href="#">SL Swiss Ball Knee Tucks</a>	3 x 8 (Each Side)	3 x 8 (Each Side)	3 x 8 (Each Side)	3 x 8 (Each Side)
Section 2				
<a href="#">BB RDL</a>	3 x 10	3 x 10	3 x 8	3 x 8
<a href="#">Barbell Bench Press</a>	3 x 8	3 x 8	3 x 6	3 x 6
<a href="#">Pull Ups (Mid Grip)</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
Section 3				
<a href="#">FFE DB Spilt Stance Squat</a>	3 x 6 (Each Side)	3 x 6 (Each Side)	3 x 6 (Each Side)	3 x 6 (Each Side)
<a href="#">DB HK Shoulder Press</a>	3 x 8	3 x 8	3 x 6	3 x 6
<a href="#">Prone Row</a>	3 x 8	3 x 8	3 x 6	3 x 6
Section 4				
<a href="#">DB Push Up Row</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">Bear Pull</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure
<a href="#">DB Hammer Curls</a>	3 x Failure	3 x Failure	3 x Failure	3 x Failure

Click Exercise Name For Video Example



NOTTINGHAM FOREST ACADEMY

# Physical Development Maintenance Sessions

# Maintenance Session 1



Exercise	Sets	Reps
<a href="#">90/90 RF Rotations</a>	3	30s (Each Side)
<a href="#">Elevated Ankle Range</a>	3	30s (Each Side)
<a href="#">Plate Rocks</a>	3	30s
<a href="#">Wall T-Spine Rotations</a>	3	30s (Each Side)
<a href="#">Squat To Hamstring</a>	3	30s
Trunk Exercises		
<a href="#">Body Saw</a>	3	8
<a href="#">Dead Bug Squeezes</a>	3	8 (Each Side)
<a href="#">Overhead Palloff Press</a>	3	8 (Each Side)
<a href="#">Elevated Side Plank Cycle</a>	3	10 s (Each Position) (Each Side)
<a href="#">TGU</a>	3	1 (Each Side)
<a href="#">Plate Holds</a>	3	15s (Hold)
Tendon Loading		
<a href="#">Sprinter Iso Hold</a>	3	5 (Each Side) 5s (Hold)
<a href="#">KB Leg Lowers (Long Lever)</a>	3	6 (Each Side)
<a href="#">Hamstring Slide Out</a>	3	4
<a href="#">Glute Bridge Adductor Holds</a>	3	6
<a href="#">Glute Clams</a>	3	10

# Maintenance Session 2



Exercise	Sets	Reps
<a href="#">90/90 Lift Off</a>	3	30s (Each Side)
<a href="#">High Standing Ankle Range</a>	3	30s
<a href="#">Spiderman Rocks</a>	3	30s (Each Side)
<a href="#">SL Frog Rocks Rotations</a>	3	30s
<a href="#">Inchworm</a>	3	30s
Trunk Exercises		
<a href="#">Plank Cycle</a>	3	15s (Each Position)
<a href="#">Banded Deadbug</a>	3	8 (Each Side)
<a href="#">Split Stance Rotations</a>	3	6 (Each Side)
<a href="#">SA Carry</a>	3	15m (Each Side)
<a href="#">TGU</a>	3	1 (Each Side)
<a href="#">Plate Trunk Lowers</a>	3	6 (Each Side)
Tendon Loading		
<a href="#">Toe Lunge</a>	3	6 (Each Side)
<a href="#">Passive Hip Flexion</a>	3	3 (Each Side) 10s (Holds)
<a href="#">Hamstring Bridge</a>	3	8
<a href="#">Adductor Lifts (Short Lever)</a>	3	6 (Each Side)
<a href="#">SL DB Hip Thrust</a>	3	6 (Each Side)