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Nottinghamshire Fire and Rescue Service believe in an ethos that investing in and looking after employees will help to promote a happy, healthy workforce. Commitment to create an environment whereby employees are encouraged to engage in a healthy active lifestyle is embedded in the organisations core values, evidenced in our Wellbeing Strategy. Wholetime operational firefighters are allocated dedicated physical training time whilst on shift. Comprehensive gym facilities are provided on all stations and at Headquarters, with all employees having access to regular classes such as circuit training, mindfulness and Pilates.







It is well known that the occupational tasks of a firefighter are arduous; often involving operating and carrying heavy equipment whilst working for long periods of time in challenging conditions. These tasks demand a myriad of essential physical attributes to ensure they can be performed effectively, whilst reducing the likelihood of injury.

A successful fitness programme should focus on a combination of components including strength, power, aerobic training, muscular endurance and flexibility. In addition, training that develops neuromuscular movement patterns is crucial to promote reaction time and reduce risk of injury to a firefighter when faced with environmentally challenging tasks, so training should also incorporate modes of agility, balance and proprioception development.

Preparing to meet the physical requirements for the recruitment process can be challenging, particularly due to Covid-19 placing restrictions on access to gym facilities. If you have a determined attitude, and are ready to commit to your training, the timetable provided within this booklet gives you an easy to follow **12-week fitness programme,** offering creative ways you can train from home with just a small selection of equipment. Guiding you throughout your training journey, the sessions are designed to support you with all aspects of fitness highlighted, helping you to prepare for the physical challenges ahead, through recruitment and life as a firefighter.



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Before You begin



Safety Information

- If you have any doubts about your health or physical ability to exercise, you should consult a doctor before commencing any physical training programme. This is especially important if you are (or think you might be) pregnant, if your health status has recently changed, if you are recovering from a recent illness or injury, or if you are new to exercise.
- Make sure you wear suitable clothing during your training sessions, particularly appropriate footwear.
- Remain hydrated throughout periods of exercise.
- Fitness improvements take time and it is important that you listen to your body. Training too hard too quickly can easily lead to injury, so progress gradually and ensure sufficient rest and recovery time is taken.
- If you are unsure about any aspect of the guidance or you would like additional support with your training, it is recommended that you seek the advice of a suitably qualified fitness professional.

If you answer **yes** to any of the questions below or if you have any concerns regarding a medical issue, further guidance should be sought from a medical professional prior to participation to ensure your safety.

- 1. Has your doctor ever said that you have a heart condition **OR** high blood pressure?
- 2. Do you feel pain in your chest at rest, during daily activities of living **OR** when you engage in physical activity?
- 3. Do you lose balance because of dizziness OR have you lost consciousness in the last 12 months?
- 4. Have you ever been diagnosed with another chronic medical condition (other than heart disease or high blood pressure)?
- 5. Are you currently taking prescribed medications for a chronic medical condition?
- 6. Do you currently have (or have had within the past 12 months) a bone, joint or soft tissue (muscle, ligament or tendon) problem that could be made worse by becoming more physically active?

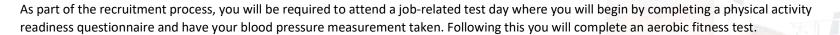
Answer **NO** if you had a problem in the past, but it does not limit your current ability to be physically active.

- 7. Are you currently taking any medication which causes drowsiness or any other side effects which may affect your ability to carry out physical activities?
- 8. Are you currently under investigation/monitored for any medical condition?





Job Related Testing



The 20 metre Multi-Stage Fitness Test (MSFT) – bleep test

The MSFT is designed to measure aerobic fitness. The test involves continuous running between two lines 20 metres apart, in time to a recorded bleep. The test is progressive, with the bleep and pace getting quicker at each level. You will be required to keep up with the bleep, turning when signalled by the bleep. You will need to get a foot on or over the line in time with the bleep, if you reach the line before the bleep, wait for the bleep before continuing. Your final score is recorded at the level you stop, or if 3 misses are recorded, the 3rd miss is your final score.

Total Level **Distance** Per Level Shuttles Running Time Per Cumulative Cumulative Speed (km/h) Shuttle (s) Time(s) Time (m:s) Level (m) Distance (m) 1 9 63 1:03 140 140 7 8 64 2 8 9 8 2:07 160 300 9.5 7.58 60.6 3 8 3:08 160 460 4 9 10 7.2 64.8 4:12 180 640 5 9 10.5 6.86 61.7 5:14 180 820 6 10 11 6.55 65.5 6:20 180 1020 7 10 11.5 6.26 62.6 7:22 200 1220 11 12 66 8:28 220 1440 8 6



The required standard to pass the MSFT is level 8.7





Job Related Testing

If you are successful at completing the MSFT, you will then move on to complete a series of physical tests. You will be required to complete the following job-related tests:

1. Simulated ladder Lift – 25kg

This is a test of your upper and lower body strength, and your ability to lift a ladder – something that you will regularly do as a firefighter. You will be expected to again wear full fire kit and raise a bar that is already 75cm off the ground, to full arm extension and back down again.

2. Equipment Carry Test

This tests your cardiovascular fitness, stamina and muscular strength and involves carrying a range of fire and rescue service equipment around a course. This must be done within a certain time. **Candidates are required to:**

- Drag a 55kg 'dummy' around a 25-metre course, backwards, and then jog 25 metres
- Pick up and carry two lengths of hose 100 metres
- Carry one roll of hose at chest height for 25 metres, and then jog 75 metres.
- Pick up and carry a 2.4-metre-long suction hose and basket strainer for 100 metres, then jog 100 metres.
- Pick up and carry a weight for 100 metres.













Job Related Testing

3. Ladder climb

This is a test of your confidence whilst working at height. With the guidance of an instructor, you are required to demonstrate a correct 'leg lock' at ground level before ascending a fully extended 13.5m ladder. You must climb this ladder to approximately second storey height before performing another 'leg lock'. You will then be asked to lean back with your arms outstretched and describe a symbol shown on the floor.

During this test you will be wearing full fire kit (personal protective equipment), a helmet and a harness.

4. Enclosed Space

This tests your confidence and agility when working within an enclosed space. You will be required to wear full fire kit and a breathing apparatus mask whilst crawling through a series of tunnels in darkness. This simulates some of the conditions that firefighters may face when dealing with compartment fires.

5. Hose Running

You will be required to run out and make up three lengths of 70mm fire hose within the allotted time.

6. Equipment Assembly Test

This tests your manual dexterity. You will be required to follow a set of instructions to assemble and disassemble a piece of equipment, within a set time.

7. Swimming Test - this will take place on a separate occasion.

Demonstrate you can swim 25 metres. There is no time limit on this test.













Get FireFit Specific



Firefighters are required to have a good all-round level of fitness. The chart below demonstrates the various fitness components that are essential physical attributes required, with a justification as to why they are important.

The tasks that a firefighter undertake whilst wearing PPE are Lifting and carrying heavy equipment demanding, and require a good level of cardiovascular fitness. demands a level of physical strength, All Nottinghamshire Fire and Rescue operational firefighters are so tasks can be completed required to undertake an annual fitness test to the national comfortably, with the stamina to standard VO2 of 42.3 ml/kg/min. continue. This is the equivalent to 8.7 on the MSFT. These include handling ladders, hose Cardio Training However, this should be the minimum level of running, carrying equipment and fitness that a firefighter should maintain, so they using the cutting equipment. are not working to maximum capacity. Resistance Flexibility Training Firefighters need to be able to manoeuvre their body through challenging or tight confined space, requiring a good level of Working in dark conditions with debris flexibility. underfoot is not uncommon for a firefighter. A lack of flexibility will limit the range of The body's ability to react quickly to a slip or motion, placing stress on joints, which can then trip depends on the neurological pathway from potentially result in injury such as muscle our joint to our brain to initiate a reaction. strains or ligament damage.

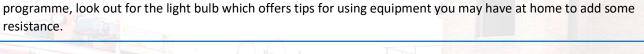


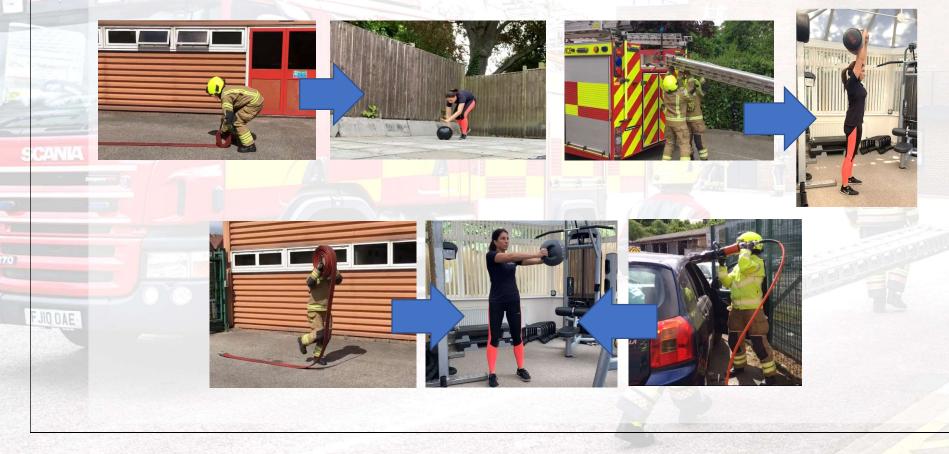




Get FireFit Specific

Due to Covid-19 restrictions, you may be faced with the challenge of training without access to a gym... So, it is time to get creative! If you are training at home, you do not need to have access to a multi gym with expensive equipment. Throughout the







Get FireFit Specific



Needs Analysis

Identify any Gaps

Throughout your training, you can establish and monitor your own training status in relation to the demands of the role outlined. From this, you are encouraged to complete a Needs Analysis based on the recommended physical attributes and ability. The Needs Analysis encourages you to explore your training history, what has your training previously involved, how often, what modes, what you like, dislike, barriers, injuries or weaknesses. It may be that you stick to following a specific training regime that you most enjoy, such as predominately cardio or weights, which is common. However, this can come at a risk of neglecting other essential components that are essential for a firefighter to possess.

Taking some time to think about your training history will also help you to establish your current baseline whilst identifying any gaps in your training. You can then ensure these are factored into your programme, helping you to achieve your goals.

Set Your Goals

Planning what you are aiming to achieve will help you to ensure you get the best out of your training sessions.

Setting **SMART: Specific Measurable Achievable Realistic Timebound** goals and following a specific programme will help you to stay on track and monitor your progression.



History - Establish your baseline

Complete your Needs Analysis on blank paper, like a mind map, to note down your training history. Think about:

- ✓ Your training history; both long term and short term
- ✓ Frequency, intensity, duration and type
- ✓ Have you had a focus i.e. sport or event specific
- What motivates you and what do you enjoy
- ✓ Barriers or dislikes
- Any previous injuries/weaknesses

Need

Based on the specific tasks required for the role of a firefighter. For example; hose running, ladder lift, equipment carry, rescue and working in dark confined spaces

- ✓ Cardiovascular Endurance
- ✓ Muscular Endurance
- Muscular Strength
- Coordination and Balance
- ✓ Flexibility
- Speed, power, agility
- Reaction time

Identify

This task will help you to identify any gaps in your training, so you can ensure you include these components in your programme.





Monitoring Exercise Intensity How hard should it feel?

To ensure you are getting the best out of your exercise sessions it is essential that you listen to your body and monitor the exercise intensity. To improve fitness, you need to be working at a high enough intensity to overload and progress.

There are various validated tools you can use to monitor intensity. It would be advisable to use a variety of these rather than relying on one method to measure your exertion.

Three tools include Rate of Perceived Exertion (RPE), Talk Test., and Heart Rate Monitoring. All three are used for monitoring cardiovascular exercise, with the RPE scale most commonly selected for monitoring resistance exercise. Heart rate monitoring is discussed on page 15.

Rate of Perceived Exertion – RPE

The rate of perceived exertion scale is a tool which enables you to assess your exercise intensity, whilst correlating to your given effort and how it makes you feel. The Borg Rating of Perceived Exertion scale is 6 - 20, however you may prefer the 1 -10 category ratio scale, both of which are displayed below.

Borg scale 6 – 20	Perceived Exertion	Category Ratio 1 – 10	% Effort
6	No exertion at all	0	20%
7	Extremely light		30%
8		1	40%
9	Very light		50%
10			55%
11	Light		60%
12		3	65%
13	Somewhat hard		70%
14		5	75%
15	Hard (heavy)		80%
16		7	85%
17	Very hard		90%
18			95%
19	Extremely hard	10	100%
20	Maximal exertion		Exhaustion

How Does It Feel? Can you Talk?

It is good practice throughout your exercise session to ask yourself how the intensity feels. Are you working hard enough to improve your fitness?

Moderate intensity would be measured around 5 out of 10 using the 1-10 scale. You generally should still be able to talk, you will feel warmer and slightly sweaty, but it is not uncomfortable.

Vigorous intensity would be measured above 6 out of 10, using the 1 - 10 scale. You will not be able to hold a conversation and may be feeling uncomfortable during this high intensity zone.

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Resistance Training



Where to begin

A firefighter needs to have both muscular strength and endurance to be able to carry out core duties effectively, without posing a risk of injury. Strength is required for ladder lifting, whereas carrying heavy equipment, rescuing a person in an incident and hose running, which take place over a longer duration, require both muscular strength and muscular endurance.

For well-rounded results, it is not necessary for your training to be complex, just that it be specific for you and includes a combination of methods to train for both muscular strength and endurance. Your programme should focus on the whole-body, whilst tailored to target any specific weaknesses. Progression and rest are essential elements to be included within your programme, to allow time for your body to develop, adapt and recover.

The resistance training in this programme offers a blend of functional training in a circuit format, core training and traditional resistance sessions, giving a well-balanced approach to prepare your body for the challenges of firefighter tasks.

Base Training Phase - Week 1 to 4

It is strongly recommended that you complete the base training phase if you have not engaged in regular resistance training sessions over the past three months.

The base training phase offers an introduction to general resistance training which is a great place to start if you are new to this training mode. This phase is an opportunity for correct technique to be mastered, helping to mitigate injury. Focusing on developing muscular endurance will allow the body to gradually adapt to the stress of overload from resistance training, creating a solid foundation to progress onto the next phase.

Development and Familiarisation Phase – Week 5 to 8

Following a period of base training, resistance training will progress from an endurance focus towards hypertrophy (*increase lean body mass with both endurance and strength gain*), preparing the body for the transition to the demands of strength training. In addition, exercises that incorporate specific tasks that correlate with the physical demands of the firefighter role will be introduced.

Strength and Endurance Phase – Week 9 to 12

During this phase, sessions will incorporate a mixture of training methods, enabling your body's muscular strength and endurance ability to continue to adapt, develop and progress.



Resistance Training Guidance General guidelines recommend training major muscle groups 2 -3 days per week. Allow 48-hour recovery between each session or training a specific muscle group. You can choose a whole-body approach in the same session. Individuals that are intermediate and advanced can train 3 – 7 sessions per week by splitting their training, selecting specific muscles groups on different days. For example, upper body/lower body, or push exercises/pull exercises.

Exercise Selection and Order

 \checkmark

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How

Often?

extensions and leg curls.
 Carry out compound exercises before moving onto isolation exercises. If your programme is whole-body approach, you may choose to alternate between upper and lower body exercises, or push and then pull to allow sufficient recovery.

Isolation exercises target single joint major muscles such as bicep curls, triceps extensions, front raise, leg

Compound exercises target multi-joint or major muscle groups such as squats, leg press, shoulder press, chest

- **Ensure you work opposing muscle groups** to avoid muscle imbalance such as bicep curls and tricep press, core exercises and back extensions, hamstring curls and leg extensions for quadriceps.
- Perform exercises through **full range of motion**, ensuring good technique at all times.

Your training programme should incorporate both compound and isolation exercises:

press and latissimus dorsi pull down.

Training Goal	Repetitions	Sets	Recovery between sets
Muscular Endurance	>12	2-3	< 30 seconds
Hypertrophy Increase lean body mass with both endurance and strength gain	6-12	3-6	30 – 90 seconds
Strength	<6	2-6	2 – 5 minutes

You may choose to work within the guidance above, using set working reps and sets. However, a circuit based approach is also an option; selecting a set duration, with a recovery period, completing as many reps as possible with good form within in that time. There is no right way, both options are perfectly fine. You will find a mix of both circuits and traditional training methods have been used in the programme. If you wish to change the session, that is fine, apply the principles outlined and choose which method you prefer.

Repetitions, Sets and Recovery

12



Cardiovascular Training



Where to begin

The cardiovascular element in the training programme is designed to progressively build your aerobic fitness over a number of weeks through longer steady sessions that focus on developing endurance ability, and higher intensity sessions that will equip you with the stamina to cope with high intensity anaerobic exercise, giving you that extra push when you start to fatigue. Preparation for the bleep test is also included within the programme, with hints and tips on how to master technique and practice in

advance of job related testing day detailed on page 17.

The plan begins with building consistency with regular training. The intensity of the sessions being to increase, pushing you harder and increasing your aerobic fitness. If you need to come back to a walk during any of the sessions, then do, take a recovery and then pick back up your pace again. Be true to yourself with monitoring intensity, if the session is a pace tempo – it should be hard, so think to yourself, can I work harder!

ANKA

During cardiovascular exercise, such as running, cycling, tennis and rowing, the body will select the energy source within the body to provide the fuel required for the activity. This selection process is dictated by the intensity and duration of the exercise.

Training at an intensity below 80% of your maximum heart rate, the body will utilise oxygen to convert body fat to energy, this is known as aerobic exercise. As the intensity of exercise increases, the energy source gradually drifts towards carbohydrates becoming the preferred energy source, which no longer requires oxygen. The duration of sustaining exercise decreases the higher the intensity. However, as you become fitter and expose your body to exercise within the various zones, your body will adapt and become more efficient, enabling you to train within the higher intensity zone for longer periods of time.

% MAXHR	Effort/Training Zone
90-100%	VO2 Max/Performance (Maximum Effort)
80-90%	Anaerobic (Sprints/High Intensity/Lactate)
70-80%	Aerobic (Cardio Training/Endurance base)
60-70%	Weight Control (Fitness/Fat Burn)
50-60%	Light Activity (Warm-up/Recovery)





Cardiovascular Training

How often and for how long?

What Type?



✓ 3 – 5 times per week

Guidance recommends adults engage in a minimum of 150 minutes of moderate aerobic physical activity or 75 minutes of vigorous aerobic physical activity, 3 – 5 days each week (can include a combination of both) composing of various training types with rest and recovery days. However, **progression** needs to be gradual, and **overload** is required to improve fitness, which are discussed along with intensity over the next few pages.

Running, bike, rower, cross trainer, circuits or interval training, swimming ... whatever you enjoy!

Choosing aerobic exercise that you enjoy will help to encourage adherence. Include specific exercise on feet is advisable, such as running, with a blend of off feet training such as cycling and rowing, enabling you to train aerobically whilst reducing the stress from your joints.









Cardiovascular Training

Monitoring Exercise Intensity

There are various methods to monitor the intensity of your exercise, including the RPE scale and the talk test discussed on page 10. Using a mixture of tools would be recommended, as your perception of how hard a session feels may reflect differently when compared to your heart rate monitor.

Heart rate monitoring

There is a close relationship between your heart rate response and the zone in which you are exercising. You can use the Karvonen method below to calculate your specific expected heart rate zones for your desired intensity.

Target heart rate = (220 – age – resting heart rate) x % intensity desired + resting heart rate

0	Required zone at 60%	
Example	(220 - 35 - 65) = 120	
Age = 35	120 x 0.60 = 72	Target heart rate
Resting heart rate = 65	72 + 65 = 137 bpm	60% = 137 bpm
Assigned intensity zone		80% = 161 bpm
= 60% - 80%	Required zone at 80%	
	(220 - 35 - 65) = 120	This would be an
(220 - 35 - 65) = 120	120 x 0.80 = 72	RPE of: 11 - 15
120 x 0.60 = 72	72 + 65 = 161 bpm	
72 + 65 =	and the second second	
137 beats per minute		
(bpm)		

Training Methods

There are various training methods you can choose which have a different fitness gain. This will enable you to tailor your sessions depending on your goals.

STEADY STATE (Long Slow distance) - Great for building endurance Duration 30 minutes + Intensity 70% of target heart rate – RPE 13 Frequency 1 – 2 per week Following warm up, maintain a continuous pace. Focus on longer duration, lower intensity.

<u>PACE/TEMPO</u> – Shorter sessions that are great for increasing aerobic capacity and lactate tolerance; reducing development of fatigue at high intensity Duration 20 – 30 minutes Intensity 80% of target heart rate – RPE 15 Frequency 1 – 2 per week Following a warm up, either maintain a continuous pace at 80% (hard), **OR**

interval between 80% (hard) and 60% (light). To progress increase duration.

FARTLEK – tough training method designed to increase speed, aerobic capacity and lactate tolerance **Duration** 20 – 60 minutes **Intensity** 70% - 85/90% of target heart rate – RPE 13-18 **Frequency** – 1 per week

Following a warm up, increase intensity to high zone. Maintain this zone for as long as you can. Push yourself and listen to your body. Once you can no longer maintain this, reduce the intensity to the lower zone to take an active recovery. As soon as you are ready, push back up again and repeat for the duration.





Cardiovascular Training Progression and Overload

- General advice recommends exercise frequency, intensity or duration should not increase more than 10% each week.
- You may reduce frequency short term to avoid risking too much overload, allowing your body to adapt during intensity increase.
- Progression should be gradual with appropriate recovery time.
- To improve your cardiovascular fitness, it is important to be exercising regularly at an intensity that overloads the body sufficiently to cause fitness gain.
- Too much training can lead to injury whereas not sufficient training or overload will not elicit gains required to improve.
- As a general guide, an individual could expect to see a 10 15% gain in cardiovascular fitness following a 12-week period of regular exercise. However, it is important to note that this depends on various individual factors such as exercise history, age and training intensity.
 - Getting the balance right is important, so listen to your body!





Cardiovascular Training Shuttle Run Practice Tips

The 20 metre Multi-Stage Fitness Test (MSFT) – bleep test

- Make sure you have the correct audio as there are varying fitness tests such as the 15-metre test. Apps are available for download and the chart on page 4 shows the number of shuttles for each level.
- Practice your turns, touching the line with one foot, turning and pushing off.
- Switch your lead leg on the turns if you can, to reduce stress through the joints.
- If you need to stop when practicing, that's fine. Take a quick recovery and join back in so you can get used to the increased speed.
- The programme includes fitness self-assessments, so you can record your progress with the MSFT. Using a firm surface is advisable for this (tarmac, football court, sports hall).
- Shuttle run practice is also factored into the cardio sessions. This can be done on a softer surface (park), and is designed to get you used to stopping, turning and running as various speeds.

Click here to access our playlist of fitness video's and select 'cardiovascular training', which discusses advice for aerobic training and preparation for the MSFT.





17





Agility, Balance and Proprioception

Working in dark conditions with debris underfoot is not uncommon for a firefighter. The body's ability to react quickly to a slip or trip depends on the neurological pathway from our joint to our brain to initiate a reaction, which naturally declines with age. For this reason, it is good practice to incorporate exercises to develop balance, proprioception and agility, to reduce your risk of injury.



There are various ways you can develop your balance and proprioception. Exercises to challenge agility, balance and proprioception are built into the resistance and circuit training elements in programme.



Home Training

Don't have a bosu ball?

Using a towel or a pillow are great alternatives, creating an unstable surface to practice balance.



- Clock squats
- Lateral stepping
- Lateral running Hopping

BALANCE

- Stand on one leg close your eyes
- Balance on a bosu ball both feet then one foot

PROPRIOCEPTION

- Catching and throwing a ball thrown from varying directions
- Balance on bosu ball
- Medicine ball exercises such as figure of eights

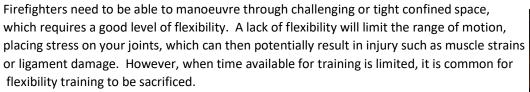




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Flexibility



- ✓ **Prior** to your training session, warm up thoroughly. Dynamic stretching will prepare the joints and muscles for the working session.
- ✓ **Following** your session, aim to stretch within 5 - 10 minutes of completing each session.





Pilates or Yoga will help you to develop body awareness, identifying any weakness or tightness you may have, leading to an improved posture, greater flexibility and a stronger core. It is also a fantastic way to take time out for some relaxation and important 'you' time.

Complete daily and after each workout. Hold the stretch for 15 – 20 seconds



Calf Stretch













Upper Back Stretch

Quadricep Stretch



Inner Thigh Stretch



Chest Stretch







Prepare for Exercise Warm Up

The warm up is an important element designed to prepare your body for the session ahead. The aim of the warm up is to activate and increase the temperature of the working muscles, **without causing fatigue**, optimising the effects of your main session whilst also reducing the risk of injury and stiffness. Begin slowly, ensure your warm up is specific to your exercise session and factor in the environment you are training; outdoor session in cold conditions will require a longer warm up duration.

Cardiovascular Training

To warm up prior to a **cardiovascular training** session i.e. running, take time to begin with a gradual warm up, such as brisk walking, progressing into a light jog. The warm up should be around five minutes in duration, although this time will increase when training in colder environments.

Warm up prior to a functional circuit session

- Begin with low intensity aerobic activity walking, torso rotation and flexions, shoulder rolls, gradually progress intensity i.e. jogging.
- Progress with dynamic movements arm swings, lunge with a twist, walking knee lift, hip openers, heel kicks, squats, walking lunges, lateral lunges. Keep the movement controlled avoid bouncing and jumping.
 - Complete 8 10 reps of each movement whilst travelling, progressing the range of movement.
- Increase intensity i.e. shuttle runs, lateral travel, varying directions, bend down floor touch and reach up overhead.

Warm up prior to a resistance session

- 5-minute walk/light jog or steady bike (feel warmer, comfortable, able to talk).
- > Mobilisation and dynamic stretching wrist circles, shoulder rolls, arm circles, torso rotations and flexions, squats, hip openers, knee lifts, heel kicks.
- Weight preparation can include performing reps of the major muscles from your main session, with lighter resistance such as: light weights (50% working set), or just using bodyweight.



Prepare for Exercise



Technique Tips

- ✓ Ensure that you adopt and maintain good posture throughout your training.
- ✓ Focus on the quality of your exercise, ensuring you perform each repetition through full range of movement with control.
- Check out your technique in a mirror or record yourself. You may be able to spot an adjustment to technique that you may not be able to feel.
- Always include a thorough warm up prior to commencing your working session.
- Make time for stretching after each session to reduce muscle soreness and joint stiffness.

Try This

Relax, exhale and draw in your tummy towards your spine, activating your core muscles. Relax and repeat. Mild core activation should be maintained throughout your exercise session, and is great to build into everyday activities to reduce your risk of injury, particularly in the lower back.

Tailor the programme to suit your need

From week five, you will notice that the programme offers an option to select either a cardio or resistance session on a Monday. On alternate weeks the session begins with shuttle practice, which you are encouraged to complete first. Then choose either the cardio or resistance session based on which you have a greater need to develop. Using the prompts in the needs analysis will help you to make your own assessment. If you are new to resistance training, it may be likely that you need to invest more time each week to develop your strength, so the additional resistance session would be advisable.



Prepare for Exercise



Squat Technique

It is important to focus on the quality of your exercises, to ensure you are performing them correctly. Allowing your body time to master technique before progressing will lead to correct muscle memory, enabling you to develop whilst continuing to maintain correct form, reducing your risk of injury.

The squat is a functional movement that is important to be performed correctly. A lack of joint flexibility and muscle strength can lead to common errors when squatting, including the chest tipping forward, knees falling in, and heels lifting from the floor.



As flexibility increases, and muscles strengthen providing stability to the joints, your squat can then be developed.

Where to Begin

Focus on:

- Keeping chest lifted
- Keeping knees out in-line with toes Heels on the floor

Bodyweight box squats

Can use a box, bench, chair or an object, your knee bend will be 90 degree when seated.

Feet slightly wider than hip distance apart, toes slightly turned out.

Cross arms over chest or take arms out in front. On downward phase, focus on pushing hips backwards, sitting down on box for a moment, then push down through your feet, bringing hips forward to return to start.

Progress to Bodyweight squats

If knees fall in, or heels start to lift from the floor, reduce range of movement and do not go any deeper, begin upward phase by pushing through heels and bringing hips forward.

Add Resistance

Once you can complete a squat maintaining correct form, you can then add resistance.









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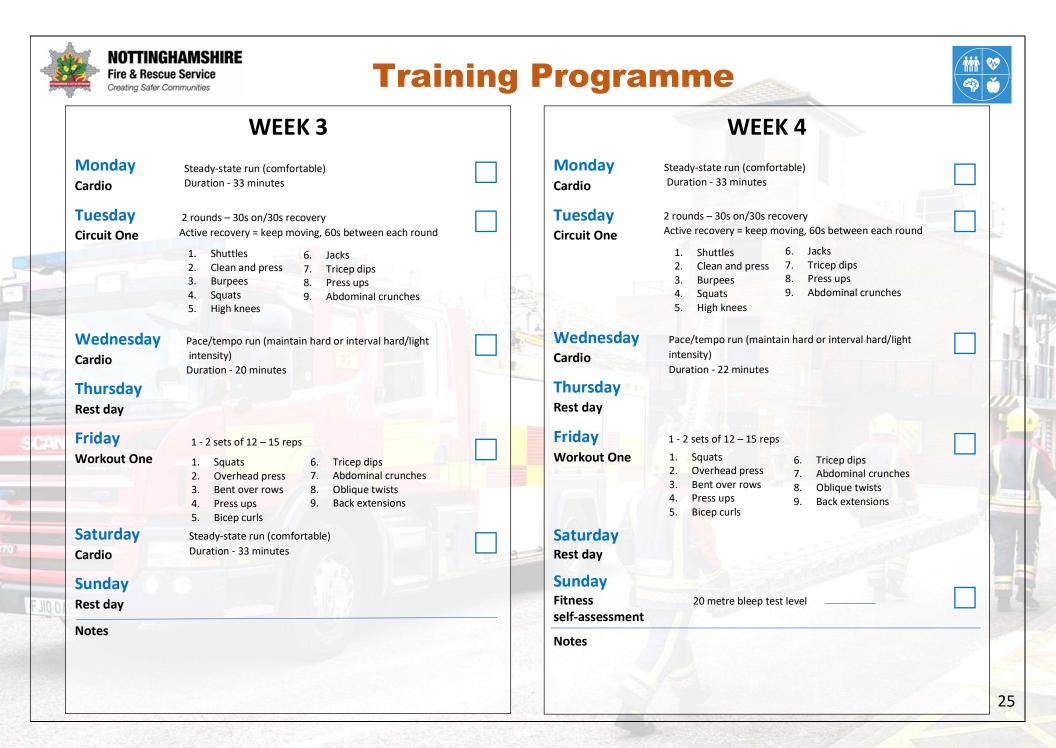
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Week 1 – 12 Training Programme



WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	WEEK COMPLETE
1	FITNESS SELF ASSESSMENT	CIRCUIT ONE	STEADY STATE RUN Duration: 30 minutes	REST	CIRCUIT ONE	STEADY STATE RUN Duration: 30 minutes	REST	\checkmark
2	STEADY STATE RUN Duration: 30 minutes	CIRCUIT ONE	PACE TEMPO Duration: 20 minutes	REST	WORKOUT ONE	STEADY STATE Duration: 30 minutes	REST	
3	STEADY STATE Duration: 33 minutes	CIRCUIT ONE	PACE TEMPO Duration: 20 minutes	REST		STEADY STATE Duration: 33 minutes	REST	
4	STEADY STATE Duration: 33 minutes	CIRCUIT ONE	PACE TEMPO Duration: 22 minutes	REST	WORKOUT ONE	REST	FITNESS SELF ASSESSMENT	
5	STEADY STATE Duration: 33 minutes and/or WORKOUT TWO	PACE TEMPO Duration: 22 minutes		REST	WORKOUT TWO	FARTLEK Duration: 20 minutes	REST	
6	SHUTTLE PRACTICE + either STEADY STATE Duration: 33 minutes or WORKOUT TWO	PACE TEMPO Duration: 24 minutes		REST	WORKOUT TWO	FARTLEK Duration: 20 minutes CORE + BALANCE	REST	
7	STEADY STATE Duration: 36 minutes and/or WORKOUT TWO	PACE TEMPO Duration: 24 minutes	CIRCUIT TWO	REST	WORKOUT TWO	FARTLEK Duration: 20 minutes CORE + BALANCE	REST	
8	SHUTTLE PRACTICE + either STEADY STATE Duration: 36 minutes or WORKOUT TWO	PACE TEMPO Duration: 26 minutes		REST		REST	FITNESS SELF ASSESSMENT	
9	STEADY STATE Duration: 36 minutes and/or WORKOUT THREE	PACE TEMPO Duration: 26 minutes	CIRCUIT THREE	REST	WORKOUT THREE	FARTLEK Duration: 22 minutes CORE + BALANCE	REST	
10	SHUTTLE PRACTICE + either STEADY STATE Duration: 36 minutes or WORKOUT THREE	PACE TEMPO Duration: 26 minutes		REST	WORKOUT THREE	FARTLEK Duration: 22 minutes CORE + BALANCE	REST	
11	STEADY STATE Duration: 36 minutes and/or WORKOUT THREE	PACE TEMPO Duration: 28 minutes	CIRCUIT THREE	REST	WORKOUT THREE	FARTLEK Duration: 25 minutes CORE + BALANCE	REST	
12	SHUTTLE PRACTICE + either STEADY STATE Duration: 40 minutes or WORKOUT THREE	PACE TEMPO Duration: 28 minutes	CIRCUIT THREE	REST	WORKOUT THREE	REST	FITNESS SELF ASSESSMENT	12

	WEEK 1			WEEK 2	
Monday Fitness self-assessment Tuesday Circuit One	20 metre bleep test level 2 rounds – 30s on/30s recovery Active recovery = keep moving, 60s between each round 1. Shuttles 2. Clean and press 3. Burpees 4. Squats 5. High knees 20 metre bleep test level 6. Jacks 7. Tricep dips 8. Press ups 9. Abdominal crunches 5. High knees		Monday Cardio Tuesday Circuit One Wednesday	Steady-state run (comfortable) Duration - 30 minutes 2 rounds – 30s on/30s recovery Active recovery = keep moving, 60s between each round 1. Shuttles 6. Jacks 2. Clean and press 7. Tricep dips 3. Burpees 8. Press ups 4. Squats 9. Abdominal crunches 5. High Knees Pace/tempo run (maintain hard or interval hard/light	
Wednesday ^{Cardio} Thursday	Steady- <mark>st</mark> ate run (comfortable) Duration - 30 minutes		Cardio Thursday Rest day	intensity) Duration - 20 minutes	
Rest day Friday Circuits One Saturday	Repeat Tuesday workout Steady-state run (comfortable)		Friday Workout One	1 - 2 sets of 12 - 15 reps 1. Squats 6. Tricep dips 2. Overhead press 7. Abdominal crunches 3. Bent over rows 8. Oblique twists 4. Press ups 9. Back extensions 5. Bicep curls	
Cardio Sunday	Duration - 30 minutes	18 2	Saturday Cardio	Steady-state run (comfortable) Duration - 30 minutes	
Rest day			Sunday Best day		
Notes use this space to record detail about your week. How sessions felt, likes, dislikes, other factors that may influence performance, such as sleeping patterns, illness, stress and life events.			Rest day Notes		
		and and			



Base Training - Circuit One

- ✓ Week One to Four 2 rounds 30 seconds on/30 seconds active recovery
- 60 seconds recovery between each round
- \checkmark The main session should feel hard (6-9/10). Add resistance to vary the intensity to make the exercise suitable for you.



You can use a variety of equipment to add resistance for the squat, and clean and press exercises. From dumbbells, barbell, kettlebells, or even a weighted fabric rucksack. Ensure correct technique is mastered prior to adding weight.

Exercise with us and follow this session online. Click this link to access our playlist of videos and select Circuit One.

1. Shuttles If you have sufficient space, shuttle run from two points for this station. Alternative options include sprinting on the spot if you are limited for space.

2. Clean and Press Feet shoulder width apart, bend knees, take grip of weight. Push hips backwards, extend legs as bring weight up to chest, keeping elbows in and weight close, extend arms overhead. Keep core engaged throughout.





3. Burpees Drop down into the press up position, jump in and up to the sky. Adjust jump to modify intensity.









Warm up first...

Details on warming up can be found on page 20.

Time: 5 minutes, gradually increasing movement and intensity to prepare for the circuit session. Intensity: comfortable, not causing fatigue.

Cool down and post stretch...

Time: 5 minutes to gradually reduce heart rate, jogging slowly coming down to a light walk on spot. Complete post stretches found on page 19.

4. Squats Read squat guidance on page 22. Feet shoulder width apart, bend at hips and knees, keep chest lifted and face forward. Engage core and squat to 90 degrees or where is comfortable, without heels lifting from floor. Keep knees in line with feet. Push through heels to drive back up.

7. Tricep Dips

facing forwards, keep

elbows in.

Use a step or a chair, hands



5. High Knees

Lift or jump alternate knee up in front.



6. Jacks From standing, jump feet out to side taking arms up. Jump back in.



9. Abdominal Crunches Low – cross hands on chest

out

High – hands to temples, elbows



8. Press ups Low - knees on floor High - full press up









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Creating Safer Communities

Week	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
L	Self-assessment	Circuits One	Cardio	Rest Day	Circuits One	Cardio	Rest Day
2	Cardio	Circuits One	Cardio	Rest Day	Workout One	Cardio	Rest Day
3	Cardio	Circuits One	Cardio	Rest Day	Workout One	Cardio	Rest Day
4	Cardio	Circuits One	Cardio	Rest Day	Workout One	Rest Day	Self-assessment

Warm up

5-minute walk/light jog or steady bike (3-5 RPE should feel warmer, comfortable, able to talk). Mobilisation and dynamic stretching – wrist circles, shoulder rolls, arm circles, torso rotations and flexions Weight preparation - squats x 10 reps slow and controlled no weights, overhead press, rows, light weights (50% working set) 10 reps

Sets 2 **Reps** 12 – 15 Weight Start light and master good form, ensuring correct technique is maintained throughout.

Gradually progress the weight as you become familiar and confident with the

Rest 30 – 60 secs between each set

exercise, the last few reps should feel hard achieving muscle fatigue without compromising quality.

		Week 2			Week 3			Week 4	
Exercise	KG	sets	reps/time	KG	sets	reps/time	KG	sets	reps/time
Squats									
Overhead press									
Bent over rows									
Press ups									
Bicep curls									
Tricep dips									
Abdominal crunches									
Oblique twists									
Back extensions									

Post Stretch

General stretches include quadricep, calf, hamstring, inner thigh, tricep, upper back, chest Hold for 15 - 30 seconds in a position of mild discomfort (not pain). Complete stretches from page 19.



Workout One Exercise Guidance

1. Squats – Read squat guidance on page 22.

Feet shoulder width apart, bend at hips and knees, keep chest lifted and face forward. Engage core and squat to 90 degrees or where is comfortable, without heels lifting from floor. Keep knees in line with feet. Push through heels to drive back up.



3. Bent Over Rows

Feet shoulder width apart, take overhand grip on dumbbells. Tip forward from the hip, knees soft.

Keep a neutral alignment through body, gaze down on the floor in front. Pull shoulder blades back, let gravity take weight of dumbbells with arms extended. Then keeping elbows in, row arms back bringing weight to navel making sure you squeeze shoulder blades together.

Return hands down with control to start position.



2. Overhead Press

Feet shoulder width apart, take an overhand grip on dumbbells, or barbell. Engage core, wrists rigid, forearms shoulder be vertical. On exhale extend arms up overhead.

With dumbbells you will create an arch as you drive them up. Can also use a sandbag or weighed fabric rucksack.



If using a bar, you will need to slightly move your head backwards to ensure bar goes vertically, as pictured below.





Workout One Exercise Guidance

4. Press Ups

Low - knees on floor High - full press up





5. Bicep Curls

Feet shoulder width apart.

Take an underhand grip of dumbbells. Keep shoulders back and down, and elbows in towards your body. With arms extended, bend elbows to curl towards shoulders, then return to starting position.

Make sure you complete full range of movement.

6. Tricep Dips

Use a step or a chair, hands facing forwards, keep elbows in. Work through full range of movement.





7. Abdominal Crunches

Low – cross hands on chest High – hands to temples, elbows out



8. Oblique Twists

Knees bent, feet flat on floor. Keep core engaged, slowly lift weight from right to left, over body, rotate body with movement. Low – sit more upright High – tilt back deeper



9. Back Extensions

Lie face down on a mat, feet hip width apart.

Tuck hands under thighs. Keep a neutral alignment nose pointing to the floor, slowly with control lift upper body off the floor, working within your range of movement. Slowly lower back down to starting position.





NOTTINGHAMSHIRE

Fire & Rescue Service Creating Safer Communities

Training Programme

WEEK 6



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WEEK 5

	Monday	Steady-state run (comfortable) Duration - 33 minutes	Monday Cardio shuttles	Ten-minute shuttle practice Then option of:
	Cardio and/or Workout Two	2 sets of 10 – 12 reps 1. Squats 5. Bent over rows 2. Overhead press 6. Bicep curls 3. Lat pulldown/pull ups 7. Tricep dips 4. Bench press/press up 9. Tricep dips	then either run or Workout Two	Steady-state run (comfortable) Duration - 33 minutes, or 2 sets of 10 – 12 reps progress resistance if possible 1. Squats 7. Bent over rows 2. Overhead press 8. Bicep curls 3. Lat pulldown/pull ups 9. Tricep dips 4. Bench press/press up 9.
100	Tuesday Cardio	Pace/tempo run (maintain hard or interval hard/light intensity) Duration - 22 minutes	Tuesday Cardio	 Pace/tempo run (maintain hard or interval hard/light intensity) Duration - 24 minutes
	Wednesday Circuits Two Thursday	 2 rounds – 45s per round Active recovery = keep moving 30s between each station, 60s between each round 1. Equipment carry 5. Lunge with rotation 2. Clean and press 3. Stepping with weights 4. Ball roll out and carry back 8. The Plank 	Wednesday Circuits Two	2 rounds – 45s per roundActive recovery = keep moving30s between each station, 60s between each round1. Equipment carry5. Lunge with rotation2. Clean and press6. Figure of eights3. Stepping with weights7. Abdominal crunches4. Ball roll out and carry back8. The Plank
X /	Rest day		Thursday Rest day	
	Friday Workout Two	Complete Monday's Workout Two resistance session	Friday Workout Two	Complete Monday's Workout Two resistance session
	Saturday Cardio	Fartlek session run/bike (Interval – very hard/recover) Duration - 20 minutes	Saturday Cardio plus Core and balance	Fartlek session run/bike (Interval – very hard/recover) Duration - 20 minutes 12 – 15 reps 2 Sets 30-60 sec Abdominal crunches Plank
	Sunday		Sunday	Bicycles Balance exercises Back extensions
UA.	Rest day Notes		Rest day	
			Notes	



NOTTINGHAMSHIRE Fire & Rescue Service

WEEK 7

Creating Safer Communities

Training Programme



WEEK 8

Monday Cardio and/or Workout Two	Steady-state run (comfortable) Duration - 36 minutes 2 sets of 10 – 12 reps progress resistance if possible 1. Squats 5. Bent over rows 2. Overhead press 6. Bicep curls 3. Lat pulldown/pull ups 7. Tricep dips 4. Bench press/press up Pace/tempo run (maintain hard or interval hard/light intensity)	Monday Cardio shuttles then either run or Workout Two	Ten-minute shuttle practice Then option of: Steady-state run (comfortable) Duration - 36 minutes, or 2 sets of 10 – 12 reps progress resistance if possible 1. Squats 5. Bent over rows 2. Overhead press 6. Bicep curls 3. Lat pulldown/pull ups 7. Tricep dips 4. Bench press/press up 5. Section of the
Cardio	Duration - 24 minutes	Tuesday	Pace/tempo run (maintain hard or interval hard/light intensity) Duration - 26 minutes
Wednesday Circuits Two	 2 rounds - 45s per round Active recovery = keep moving 30s between each station, 60s between each round 1. Equipment carry 2. Clean and press 3. Stepping with weights 7. Abdominal crunches 4. Ball roll out and carry back 8. The Plank 	Cardio Wednesday Circuits Two	2 rounds – 45s per roundActive recovery = keep moving30s between each station, 60s between each round1. Equipment carry5. Lunge with rotation2. Clean and press6. Figure of eights3. Stepping with weights7. Abdominal crunches
Thursday Rest day		Thursday	4. Ball roll out and carry back 8. The Plank
Friday Workout Two	Complete Monday's Workout Two resistance session	Rest day	Complete Monday's Workout Two resistance session
Saturday Cardio plus Core and balance	Fartlek session run/bike (Interval – to very hard/recover) Duration - 20 minutes 12 – 15 reps 2 Sets 30-60 sec Abdominal crunches Plank Bicycles Balance exercises	Friday Workout Two Saturday Rest day	Complete Monday's workout two resistance session
Sunday Rest day Notes	Back extensions	Sunday Fitness self-assessment	20 metre bleep test level
		Notes	

Development Training – Circuit Two

- \checkmark Week Five to Eight- 2 rounds Both rounds – 45 seconds on/30 seconds active recovery 60 seconds recovery between each round
- The main session should feel hard (6-9/10). Add resistance to vary the intensity \checkmark to make the exercise suitable for you.

1. Equipment Carry

Select a weight that is suitable for you. Shuttle walk between two points.



5. Lunge with Rotation

Lunge with control. forward. down. rotate over forward leg, return. Keep core engaged, shoulders back



take grip of weight. Push hips backwards, extend legs as bring weight up to chest, keeping elbows in and weight close, extend arms overhead.

6. Figure of **Eights**

Using a weight, bending at the elbow, move through a figure of 8 motion. Keep hips still and core engaged.



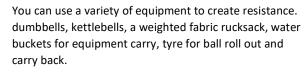
7. Abdominal Crunches

Low – cross hands on chest High – Hands to temples, elbows out



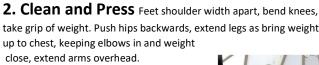








Exercise with us and follow this session online. Click this link to access our playlist of videos and select Circuit Two.



Keep core engaged throughout.



Cool down and post stretch...

Details on warming up can be found on page 20.

Time: 5 minutes, gradually increasing movement and intensity to prepare for the circuit session. Intensity: comfortable, not causing fatigue.

Warm up first...

Time: 5 minutes to gradually reduce heart rate, jogging slowly coming down to a light walk on spot. Complete post stretches from page 19.

3. Stepping Can add weight.



4. Ball Roll Out Carry Back

Roll a weighted ball along the floor around 10 – 15 metres, pick it up and carry it back. Bend your knees to pick up the ball, keeping core engaged.



8. The Plank

Lift from the core, keep hands flat and shoulders soft. The power should come from the abdominal muscles. Remember to avoid holding your breath.





Thurs Week Mon Tues Wed Fri Sat Sun Cardio OR 5 Cardio **Circuits Two** Rest Day Workout Two Cardio Rest Day NOTTINGHAMSHIRE Workout Two **Fire & Rescue Service** Shuttles + Cardio OR Cardio plus core 6 Workout Two Cardio **Circuits Two** Rest Day Rest Day Creating Safer Communities Workout Two and balance Cardio OR Cardio plus core 7 Workout Two Cardio **Circuits Two** Rest Day Rest Day Workout Two and balance Shuttles + Cardio OR Self-8 Cardio **Circuits Two** Rest Day Workout Two Rest Day Workout Two assessment

Warm up

5-minute walk/light jog or steady bike (3-5 RPE should feel warmer, comfortable, able to talk). **Mobilisation and dynamic stretching** – wrist circles, shoulder rolls, arm circles, torso rotations and flexions **Weight preparation** – squats x 10 reps slow and controlled no weights, overhead press, rows, light weights (50% working set) 10 reps

Sets 2	Weight Start light and master good form, ensuring correct technique is maintained throughout.	
Reps 10-12	Gradually progress the weight as you become familiar and confident with the exercise, the last few reps	
Rest 30 – 60 secs between each set	should feel hard, achieving muscle fatigue without compromising quality.	
	During Covid-19, social distancing restrictions may continue to place limitations, such as spotting may not be permitted. Please pay attention to your weight selection when lifting, if you do not have access to equipment to support safe	
	lifting, or you are training on your own, select dumbbells.	

	We	ek 5 - I	Von	We	eek 5 -	Fri	We	ek 6 - I	Mon	W	eek 6 -	Fri	We	ek 7 - I	Mon	We	eek 7 -	Fri	We	ek - 8 I	Non	We	eek 8 -	Fri
Exercise	КG	Sets	Reps/ time	KG	Sets	Reps/ time	КG	Sets	Reps/ time	KG	Sets	Reps/ time	KG	Sets	Reps/ time	КG	Sets	Reps/ time	КG	Sets	Reps/ time	КG	Sets	Reps/ time
Squats																								
Overhead press																								
Lat pulldown/pull ups																								
Bench press/press ups																								
Bent over rows																								
Bicep curls																								
Tricep dips																								

Post Stretch

General stretches include quadricep, calf, hamstring, inner thigh, tricep, upper back, chest Hold for 15 – 30 seconds in a position of mild discomfort (not pain). Complete stretches from page 19.

Workout Two Exercise Guidance

1. Squats

Follow previous guidance from workout one and squat information on page 22.

2. Overhead Press

Follow previous guidance from workout one.

3. Lat Pulldown/Pull Ups

There are various options you can select to complete this exercise. Focus on keeping shoulders back and down. If you have access to a lat pulldown machine, set yourself up with hips and knees at 90 degrees, take an overhand grip on the bar, lean back slightly and pull the bar down to mid chest level bringing elbows in and squeezing shoulder blades, with control return to start position.





Alternatively, a band can be used to create a lat pulldown exercise as pictured below. A band can assist with a pull up using an overhand grip if you have a secure object that you can attach the band.



4. Bench Press or Press Ups

If you have access to a bench or a step, you can complete a bench press using dumbbells. Take an overhand grip on the dumbbells, lie down on the bench and place feet onto floor or support to ensure your knees are a maximum of 90-degree bend (if they are greater, it can cause your back to arch). Bring hands in line with your shoulders, forearms vertical. On exhale, extend arms up in an arch to meet in the middle of chest. Return to start position.



You can choose to use a bar to complete your bench press. However, during Covid-19, social distancing restrictions may continue to place limitations, such as having a spotter may not be permitted. **Please pay attention to your weight selection** when lifting, if you do not have access to equipment to support safe lifting, or you are training on your own, select dumbbells for this exercise, or press ups offer a suitable alternative.

5. Bent over rows, 6. Bicep Curls, 7. Tricep Dips

Follow previous guidance from workout one.

SATURDAY CORE AND BALANCE

Abdominal crunches, plank and back extensions – follow previous guidance from circuit one and circuit two.

Balance – choose exercises from page 18.

Bicycles

C B

Lying on your back, hips and knees to 90-degree bend.

Engage core, hands to temples with elbows out to side. Lift upper body, take opposite knee to opposite elbow, whilst extending other leg to just off the floor. Return and repeat on opposite side.







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Training Programme



WEEK 9

Monday Cardio and/or Workout Three	Steady-state run (comforta 1. Deadlift 2. Squats 3. Overhead press 4. Lat pulldown/pull ups 5. Bench press/press up 6. Rows	Reps and sets depend on equipment available. See page 38 for more	
Tuesday Cardio	Pace/tempo run (maintain intensity) Duration - 26 min		
Wednesday Circuits Three Thursday Rest day Friday	30s after each station, 60s 30 second shuttle run bet 1. Equipment carry 2. Stepping with weights 3. Medicine ball hold 4. Ball roll out and carry ba 5. Lunge with rotation	ween each station	
Workout Three Saturday Cardio plus Core and balance Sunday Rest day Notes	Duration - 22 minutes 12 – 15 reps 2 Sets Abdominal crunches	Interval – very hard/recover) 30-60 sec Plank Balance exercises	

WEEK 10 Monday Ten-minute shuttle practice **Cardio shuttles** Then option of: Steady-state run (comfortable) Duration - 36 minutes, or then either run 1. 2. Deadlift or Workout Three Reps and sets depend Squats on equipment available. 3. Overhead press See page 38 for more 4. Lat pulldown/pull ups information. 5. Bench press/press up 6. Rows Pace/tempo run (maintain hard or interval hard/light **Tuesday** intensity) Duration - 26 minutes Cardio Wednesday 2 rounds - 45s per round Active recovery = keep moving **Circuits Three** 30s after each station, 60s between each round 30 second shuttle run between each station 1. Equipment carry 2. Stepping with weights 3. Medicine ball hold 4. Ball roll out and carry back 5. Lunge with rotation Thursday **Rest day** Friday Complete Monday's Workout Three resistance session Workout Three **Saturday** Fartlek session run/bike (Interval – very hard/recover) Duration - 22 minutes **Cardio plus** 30-60 sec 12 - 15 reps 2 Sets Core and balance Abdominal crunches Plank Bicycles **Balance** exercises Sunday Back extensions **Rest day** Notes



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WEEK 11

	Monday	Steady-state run (comfor	table) Duration – 36 minutes		
	Cardio and/or Workout Three	 Deadlift Squats Overhead press Lat pulldown/pull u Bench press/press u Rows 	· · · · · · · · · · · · · · · · · · ·		
ALC: N	Tuesday Cardio	Pace/tempo run (mainta Duration - 28 minutes	in hard or interval hard/light intensity)		
	Wednesday Circuits Three	2 rounds – 45s per round Active recovery = keep n 30s after each station, 6 Shuttle run between ea 1. Equipment carry 2. Stepping with weights 3. Medicine ball hold 4. Ball roll out and carry 5. Lunge with rotation	noving Os between each round ch station after recovery		
	Thursday Rest day				
	Friday Workout Three	Complete Monday's Wo	orkout Three resistance session		
X	Saturday Cardio Sunday Rest day	Fartlek session run/bike Duration - 25 minutes 12 – 15 reps 2 sets Abdominal crunches Bicycles Back extensions	e (Interval – very hard/recover) 30-60 sec Plank Balance exercises		
	Notes				

WEEK 12

Monday Cardio shuttles then either run or Workout Three	Steady-state run (comfortable) Duration - 40 minutes1.Deadlift2.Squats3.Overhead press4.Lat pulldown/pull ups5.Bench press/press up6.Rows	
Tuesday Cardio	Pace/tempo run (maintain hard or interval hard/light intensity) Duration - 28 minutes	
Wednesday Circuits	2 rounds – 45s per round Active recovery = keep moving 30s after each station, 60s between each round Shuttle run between each station after recovery 1. Equipment carry 2. Stepping with weights 3. Medicine ball hold 4. Ball roll out and carry back 5. Lunge with rotation	
Thursday Rest day		
Friday Workout Three Saturday	Complete Monday's Workout Three resistance session	
Rest day		
Sunday Fitness self-assessment	20 metre bleep test level	
Notes	8	1

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S&E Training – Circuit Three

- Week Nine to Twelve– 2 rounds
 Both rounds 45 seconds on/30 seconds active recovery after station
 60 seconds recovery between each round
- The main session should feel hard (6-9/10). Add resistance to vary the intensity to make the exercise suitable for you.

Warm up first...

Details on warming up can be found on page 20.

Time: 5 minutes, gradually increasing movement and intensity to prepare for the circuit session. **Intensity:** comfortable, not causing fatigue.

Cool down and post stretch...

Time: 5 minutes to gradually reduce heart rate, jogging slowly coming down to a light walk on spot. Complete post stretches from page 19.

Following active recovery, complete 30 seconds shuttle between stations, then commence next station



1. Equipment Carry Select a weight that is suitable for you. Shuttle walk between two points.



2. Stepping Can add weight.



3. Medicine Ball Hold

Using a weight, hold in-front at shoulder height, then take away from the midline off to the right, then on the left side. Aim to hold for 10 seconds in each position. Keep hips still and core engaged.



4. Ball Roll Out Carry Back

Roll a weighted ball along the floor around 10 - 15 metres, pick it up and carry it back. Bend your knees to pick up the ball, keeping core engaged.



5. Lunge with Rotation

Lunge with control, forward, down, rotate over forward leg, return. Keep core engaged, shoulders back.



You can use a variety of equipment to create resistance. Dumbbells, kettlebells, a weighted fabric rucksack, water buckets for equipment carry, tyre for ball roll out and carry back.

Exercise with us and follow this session online. Click this link to access our video playlist and select Circuit Three.





Week	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
9	Cardio OR Workout Three	Cardio	Circuits Three	Rest Day	Workout Three	Cardio plus core and balance	Rest Day
10	Shuttles then Cardio OR Workout Three	Cardio	Circuits Three	Rest Day	Workout Three	Cardio plus core and balance	Rest Day
11	Cardio OR Workout Three	Cardio	Circuits Three	Rest Day	Workout Three	Cardio plus core and balance	Rest Day
12	Shuttles then Cardio OR Workout Three	Cardio	Circuits Three	Rest Day	Workout Three	Rest Day	Self- assessment

Warm up

5-minute walk/light jog or steady bike (3-5 RPE should feel warmer, comfortable, able to talk).

Mobilisation and dynamic stretching – wrist circles, shoulder rolls, arm circles, torso rotations and flexions

Weight preparation - squats x 10 reps slow and controlled no weights, overhead press, rows, light weights (50% working set) 10 reps

Sets 2 -5 Reps 6-12

Weight Selection

Rest 60-90 secs between each set

If you have access to a gym, with safe equipment in place to assist with lifting, such as a rack for overhead press, aim for the lower repetition range (6-8 reps), with higher sets (3-5) for upper body, and lower sets for deadlift and squats (2-3). During Covid-19, social distancing restrictions may continue to place limitations, such as spotting may not be permitted. **Please pay attention to your weight selection when lifting**, if you do not have access to equipment to support safe lifting, or you are training on your own, select dumbbells, working with a higher rep range (8-12), and lower sets (2-3).

	Wee	ek 9 - I	Vlon	We	eek 9 -	Fri	Wee	ek 10 -	Mon	We	ek 10	- Fri	Wee	ek 11 -	Mon	We	ek 11 -	- Fri	Wee	k 12 -	Mon	We	ek 12 ·	- Fri
Exercise	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps	KG	Sets	Reps
Deadlift																								
Squats																								
Overhead press																								
Lat pulldown/pull ups																								
Bench press/press ups																								
Rows																								

Post Stretch

General stretches include quadricep, calf, hamstring, inner thigh, tricep, upper back, chest

Hold for 15 – 30 seconds in a position of mild discomfort (not pain).

Complete stretches from page 19.

Workout Three Exercise Guidance

1. Deadlift

There are various ways to deadlift, this is the conventional method.

If using a bar, the bar needs to be over your toe line. Feet shoulder width apart.

Pull hips backwards, tipping from hip, and then bend knees, if you are using a bar take an overhand grip.

With core engaged, neutral alignment and shoulders retracted, begin the upward phase by pull hips forward to

extend back to standing. For the downward phase by pairings forward to hips back, then bend knees and keeping shoulders back, lower the weight keeping it close to shins, taking to the floor to complete one deadlift.

You can use other objects such as dumbbell, kettlebell or sandbag to complete deadlifts.

Focus on good form – shoulders back, core engaged, neutral alignment, try to tip from the hip.





The red line above shows a neutral alignment through the spine. The blue line shows the hips equal distance from shoulders and knee, not sitting too deep into a squat. The purple line shows the shoulder blades in-line with the weight.

2. Squats Follow previous guidance from workout two and squat information on page 22.



Follow previous guidance from workout two. Continuing to use dumbbells or sandbag is fine. If you have access to a rack, then you can use choose to use a bar.



4. Lat Pulldown / Pull Up Follow previous guidance from workout two.

5. Bench Press / Press Ups

Follow previous guidance from workout two.

6. Rows

Follow previous guidance from workout two for bent over rows. For an alternative option you could choose standing rows using a cable machine. Feet shoulder width apart, can take a split stance to aid balance and provide stability. Cable set to waist height, arms extended take an overhand grip on bar. Row the bar towards navel, retract shoulder blades, keep elbows into sides. Return with control to starting position.





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