

TAKWIM PERTANDINGAN /PROGRAM SUKAN MSSD/MSSS/MSSM 2003

TAKWIM PERTANDINGAN / PROGRAM SUKAN MSSD / MSSS / MSSM 2003

Penggal I

✓	<u>Merentas Desa</u>	26 Feb.	SMK DHK KKB	08 Mac	Hulu Selangor	21 - 22 Mac	Negeri Sembilan
2.	Golf	5 Mac	SMK DHK KKB	25 - 29 Mac	Gombak	06-08 Mei	Terengganu
✓	<u>Olahraga</u>	13,14 Mac	SMK Syed Mashor, B. Kali. SK Bandar Baru Btg. Kali	31 Mac - 03-Apr	Petaling	17-21 Mei	Melaka
4.	Hoki	27,28 Feb.	SMK Kuala Kubu Bharu SK Hulu Yam Bharu	13 - 18 April	Gombak	23-29 Mei	Pahang
✓	<u>Bola Sepak</u>	19-21 Mac 19-22 Mac	SMK Syed Mashor, B. Kali SK Bukit Beruntung	21-25 April	Kuala Selangor	23-29 Mei	Perak
6	Kriket	24,25 Mac 24,25 Mac	SMK DHK KKB SK Kuala Kubu Bharu (1)	21-24 April	Klang	24-29 Mei	Kelantan
7.	Ragbi	5 - 6 Mac 5 - 6 Mac	SM Sains Hulu Selangor SK Serendah	8 - 11 April	Hulu Selangor	24-29 Mei	Labuan
8.	<u>Bola Tampar</u>	1-2 April 3-4 April	SM Sains Hulu Selangor SK Batang Kali	27-30 April	Kuala Langat	25-29 Mei	Kuala Lumpur
9.	Pingpong	21-22 Mac 21-22 Mac	SMK Ampeng Pecah, KKB SJK(C) Rasa	14-17 April	Hulu Langat	25-29 Mei	Sarawak

No.	Nama Permainan	MSSD HULU SELANGOR		MSSD KLANG		MSSD NEGERI SEMBILAN	
		TARIKH	PANGKALAN	TARIKH	PANGKALAN	TARIKH	PANGKALAN
10.	Tenpin Bowling	3-4 April	SMK Bukit Sentosa	27 - 30 April	Klang	25-29 Mei	Negeri Sembilan
11.	Sepak Takraw	10-11 Mac	SMK B. Baru Batang Kali	7 - 10 April	Kuala Langat	25-29 Mei	Perlis
		10-11 Mac	SK Bandar Baru Btg. Kali				
12.	Boling Padang	3-6 April	SMK Kg. Soeharto	8-10 Mei	Sepang	3 - 6 Jun	Selangor
			SK Kg. Soeharto				
13.	Bola Jaring	21-22 Mac	SMK Kuala Kubu Bharu	5 - 8 Mei	Kuala Langat	3 - 6 Jun	Pulau Pinang
		19-21 Mac	SK Ampang Pecah, K.K.B				
14.	Gimnastik	21 Feb.	SJK(C) Rasa	22-25 April	Sabak Bernam	3 - 6 Jun	Sabah
15.	Gimrama	22 Feb.	SJK(C) Batang Kali	14 - 17 April	Hulu Langat	3 - 6 Jun	Sabah
16.	Badminton	25-26 Mac	SMK Bukit Sentosa	15 - 18 April	Sepang	25-29 Mei	Kelantan
		27-28 Mac	SJK(C) Khing Ming, K.K.B				
17.	Perahu Layar Optimis			24-28 Feb.	Kuala Selangor	25-30 Mac	Panang
18.	Akuatik			5 - 8 April	Petaling	3 - 6 Jun	Selangor
19.	Mesyuarat Agung MSSD Hulu Selangor	23 Jan.	SJK (C) Khing Ming, KKB				

Penggal II

No.	Nama Permainan	MSSD HULU SELANGOR		MSSD KLANG		MSSD NEGERI SEMBILAN	
		TARIKH	PANGKALAN	TARIKH	PANGKALAN	TARIKH	PANGKALAN
1.	Memamah	6 - 7 Mei	SMK Bandar Sg. Buaya SK Bandar Sg. Buaya	21-24 Julai	Kuala Selangor	6 - 9 Sept.	Perlis
2.	Bola Baling	10 - 11 Apr.	SMK Kalumpang	21-24 Julai	Sabak Bernam	8 - 9 Sept.	Terengganu
		17 - 18 Apr.	SK Kuala Kubu Bharu (2)				
3.	Bola Keranjang	14 - 15 Apr.	SMK Sungai Choh	28-31 Julai	Klang	8 - 9 Sept.	Jonor
		16 - 17 Apr.	SJK(C) Serendah				
4.	Softbol	-	-	28-31 Julai	Gombak	8 - 9 Sept.	Selangor
5.	Skuasy	-	-	4 - 7 Ogos	Petaling	6 - 9 Sept.	Kuala Lumpur
6.	Tenis	18 - 19 Jun	SMK Ampang Pecah	4 - 7 Ogos	Hulu Langat	6 - 9 Sept.	Perak
7.	Patanque	24 - 25 Jun	SMK Gedangsa				
		26 - 27 Jun	SK Sungai Selisek				
8.	Sukan Mini (Pesta) at Kuala	9-11 Julai	Kuala Kubu Bharu	21-24 Ogos	Hulu Selangor	-	-

LAMPIRAN B

Program Latihan (Kumpulan Kawalan dan Kumpulan Rawatan)
Setiap Isnin dan Khamis (3.00pm – 5.00pm)

<i>Minggu</i>	<i>Jenis Latihan</i>	<i>(Masa)</i>	<i>Ulangan (Reps)/ Jarak</i>	
1 (Isnin)	'Warm-up' and 'stretching'	(15 minit)	2 x 50m	
	Latihtubi 'Drills'	(20 minit)		
	- Arm Action Drills			
	- Running Balance			
	- Ankling			
	- Straight Leg Shuffle			
	- Butt-kickers			
	- Wall slides			
	- 'B' March			
	- 'A' Skips			
Rehat	(5 minit)	4 x 50m		
'Long Jumping' (Intensiti Rendah)	(40 minit)			
- High skips				
- Alternate bouncing				
- Single-leg hops				
- Double-leg hops				
- RRL, LLR, RRL, LLR,				
- RR, LL, RR, LL,				
- Gallops				
- Bounding up a hill (or stairs)				
- Straight-leg jumps up a hill (or stairs)		4 x 30m		
- Double-leg jumps up a hill (or stairs)				
- Ramps and/or hill running				
- Gallops				
Latihan kemahiran acara lompatan	(10 minit)			
Permainan kecil	(15 minit)			
'Warm-down'	(15 minit)			
1 (Khamis)	'Warm-up' and 'stretching'	(15 minit)	2 x 50m	
	Latihtubi 'Drills'	(20 minit)		
	- Arm Action Drills			
	- Running Balance			
	- Ankling			
	- Straight Leg Shuffle			
	- Butt-kickers			
	- Wall slides			
	- 'B' March			
	- 'A' Skips			
	Rehat	(5 minit)		2 x 6 reps setiap latihan
	'Short Jumping'	(10 minit)		
	- Standing triple jump			
	- Standing long jump			
	- Jumping in place from half-squat			
	'Long Jumping' (Intensiti Rendah)	(15 minit)		3 x 50m
	- Jumping or hopping over seven or more cones			3 x 50m
	- Alternate step-ups on bench or step for 30 seconds or more.			
'Long Jumping' (Intensiti Tinggi)	(15 minit)	2 x 30m		
- High skips		2 x 30m		
- Alternate bouncing				
- Single-leg hops				
- Double-leg hops				
- RRL, LLR, RRL, LLR,				
- RR, LL, RR, LL,				
- Gallops				
Jogging	(10 minit)			
Permainan Kecil	(15 minit)			
'Warm-down'	(15 minit)			

<i>Minggu</i>	<i>Jenis Latihan</i>	<i>(Masa)</i>	<i>Ulangan (Reps)/ Jarak</i>
2 (Isnin)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankle - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Short Jumping' - Standing triple jump - Standing long jump - Jumping in place from half-squat - Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone) 'Long jumping' (Intensiti Tinggi) - Bounding up a hill (or stairs) - Straight-leg jumps up a hill (or stairs) - Double-leg jumps up a hill (or stairs) - Ramps and/or hill running Latihan kemahiran acara lompatan Permainan kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (20 minit) (10 minit) (15 minit) (15 minit)	2 x 50m 2 x 6 reps 3 x 30m
2 (Khamis)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankle - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat Sprint Drills Latihan kemahiran lompatan Permainan Kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (15 minit) (30 minit) (15 minit)	2 x 50m 2 x 100m, 2 x 50m

Minggu	Jenis Latihan	(Masa)	Ulangan (Reps)/ Jarak	
3 (Isnin)	'Warm-up' and 'stretching'	(15 minit)	2 x 50m	
	Latih Tubi 'Drills'	(20 minit)		
	- Arm Action Drills			
	- Running Balance			
	- Ankle			
	- Straight Leg Shuffle			
	- Butt-kickers			
	- Wall slides			
	- 'B' March			
	- 'A' Skips			
	Rehat	(5 minit)		
'Short Jumping'	(15 minit)	2 x 6 reps		
- Standing triple jump				
- Standing long jump				
- Jumping in place from half-squat				
- Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone)				
Timed jumps of 10-30 meters	(10 minit)	2 reps		
- single-leg hops				
- standing triple jumps				
- standing long jumps				
'Long Jumping' (Intensiti Tinggi)	(15 minit)	2 x 30m		
- Jumping or hopping over seven or more cones				
- Alternate step-ups on bench or step for 30 seconds or more.				
Latihan Kemahiran dan teknik acara lompatan.	(10 minit)			
Permainan kecil	(15 minit)			
'Warm-down'	(15 minit)			
3 (Khamis)	'Warm-up' and 'stretching'	(15 minit)	2 x 50m	
	Latih Tubi 'Drills'	(20 minit)		
	- Arm Action Drills			
	- Running Balance			
	- Ankle			
	- Straight Leg Shuffle			
	- Butt-kickers			
	- Wall slides			
	- 'B' March			
	- 'A' Skips			
	rehat	(5 minit)		2 x 6 reps
	'Short Jumping'	(10 minit)		
	- Standing triple jump			
	- Standing long jump			
	- Jumping in place from half-squat			
	'Short Jumping'	(20 minit)		2 x 20m
	- Standing triple jump			
	- Standing long jump			
	- Jumping in place from half-squat			
	- Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone)			
	Rehat	(5 minit)		2 x 30m
	'Long Jumping' (Intensiti Tinggi)	(20 minit)		
- High skips				
- Alternate bouncing				
- Single-leg hops				
- Double-leg hops				
- RRL, LLR, RRL, LLR,				
- RR, LL, RR, LL,				
- Gallops				
- Bounding up a hill (or stairs)				
- Straight-leg jumps up a hill (or stairs)				
- Double-leg jumps up a hill (or stairs)				
- Ramps and/or hill running				
Latihan kemahiran dan teknik lompatan	(10 minit)	2 x 30m		
'warm-down'	(15 minit)			

<i>Minggu</i>	<i>Jenis Latihan</i>	<i>(Masa)</i>	<i>Ulangan (Reps)/ Jarak</i>
5 (Khamis)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Short Jumping' - Standing triple jump - Standing long jump - Jumping in place from half-squat - Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone) 'Short Jumping' Jumping over hurdles (about one meter apart) - Five low hurdles - Five hurdles of various heights - Put two hurdles together and jump over with two legs Jogging Permainan Kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (20 minit) (10 minit) (15 minit) (15 minit)	2 x 50m 4 x 4 x 6 reps 4 x 4 x 30m
6 (Isnin)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Long Jumping' (Intensiti Rendah) - High skips - Alternate bouncing - Single-leg hops - Double-leg hops - RRL, LLR, RRL, LLR, - ,RR, LL, RR, LL, - Gallops - Bounding up a hill (or stairs) - Straight-leg jumps up a hill (or stairs) - Double-leg jumps up a hill (or stairs) - Ramps and/or hill running Latihan kemahiran acara lompatan Permainan kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (40 minit) (10 minit) (15 minit) (15 minit)	2 x 50m 4 x 50m 4 x 30m

<i>Minggu</i>	<i>Jenis Latihan</i>	<i>(Masa)</i>	<i>Ulangan (Reps)/ Jarak</i>
6 (Khamis)	'Warm-up' and 'stretching'	(15 minit)	
	Latihtubi 'Drills'	(20 minit)	2 x 50m
	- Arm Action Drills		
	- Running Balance		
	- Ankling		
	- Straight Leg Shuffle		
	- Butt-kickers		
	- Wall slides		
	- 'B' March		
	- 'A' Skips		
	Rehat	(5 minit)	
	'Short Jumping'	(10 minit)	2 x 6 reps setiap latihan
	- Standing triple jump		
	- Standing long jump		
- Jumping in place from half-squat			
'Long Jumping' (Intensiti Rendah)	(15 minit)	3 x 50m	
- Jumping or hopping over seven or more cones		3 x 50m	
- Alternate step-ups on bench or step for 30 seconds or more.			
'Long Jumping' (Intensiti Tinggi)	(15 minit)	2 x 30m	
- High skips		2 x 30m	
- Alternate bouncing			
- Single-leg hops			
- Double-leg hops			
- RRL, LLR, RRL, LLR,			
- RR, LL, RR, LL,			
- Gallops			
Jogging	(10 minit)		
Permainan Kecil	(15 minit)		
'Warm-down'	(15 minit)		
7 (Isnin)	'Warm-up' and 'stretching'	(15 minit)	
	Latihtubi 'Drills'	(20 minit)	2 x 50m
	- Arm Action Drills		
	- Running Balance		
	- Ankling		
	- Straight Leg Shuffle		
	- Butt-kickers		
	- Wall slides		
	- 'B' March		
	- 'A' Skips		
	Rehat	(5 minit)	
	'Short Jumping'	(20 minit)	2 x 6 reps
	- Standing triple jump		
	- Standing long jump		
- Jumping in place from half-squat			
- Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone)			
'Long jumping' (Intensiti Tinggi)	(20 minit)	3 x 30m	
- Bounding up a hill (or stairs)			
- Straight-leg jumps up a hill (or stairs)			
- Double-leg jumps up a hill (or stairs)			
- Ramps and/or hill running			
Latihan Kemahiran acara lompatan	(10 minit)		
Permainan kecil	(15 minit)		
'Warm-down'	(15 minit)		

Minggu	Jenis Latihan	(Masa)	Ulangan (Reps)/ Jarak
7 (Khamis)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips rehat Sprint Drills Latihan kemahiran lompatan Permainan Kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (15 minit) (30 minit) (15 minit)	2 x 50m 2 x 100m, 2 x 50m
8 (Isnin)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Short Jumping' - Standing triple jump - Standing long jump - Jumping in place from half-squat - Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone) Timed jumps of 10-30 meters - single-leg hops - standing triple jumps - standing long jumps 'Long Jumping' (Intensiti Tinggi) - Jumping or hopping over seven or more cones - Alternate step-ups on bench or step for 30 seconds or more. Latihan Kemahiran dan teknik acara lompatan. Permainan kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (15 minit) (10 minit) (15 minit) (10 minit) (15 minit) (15 minit)	2 x 50m 2 x 6 reps 2 reps 2 x 30m

Minggu	Jenis Latihan	(Masa)	Ulangan (Reps)/ Jarak
8 (Khamis)	'Warm-up' and 'stretching'	(15 minit)	
	Latibtubi 'Drills'	(20 minit)	2 x 50m
	- Arm Action Drills		
	- Running Balance		
	- Ankling		
	- Straight Leg Shuffle		
	- Butt-kickers		
	- Wall slides		
	- 'B' March		
	- 'A' Skips		
rehat	(5 minit)		
'Short Jumping'	(10 minit)	2 x 6 reps	
- Standing triple jump			
- Standing long jump			
- Jumping in place from half-squat			
'Short Jumping'	(20 minit)	2 x 20m	
- Standing triple jump			
- Standing long jump			
- Jumping in place from half-squat			
- Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone)			
Rehat	(5 minit)		
'Long Jumping' (Intensiti Tinggi)	(20 minit)	2 x 30m	
- High skips			
- Alternate bouncing			
- Single-leg hops			
- Double-leg hops			
- RRL, LLR, RRL, LLR,			
- RR, LL, RR, LL,			
- Gallops			
- Bounding up a hill (or stairs)		2 x 30m	
- Straight-leg jumps up a hill (or stairs)			
- Double-leg jumps up a hill (or stairs)			
- Ramps and/or hill running			
Latihan kemahiran dan teknik lompatan(10 minit)			
'warm-down'	(15 minit)		
9 (Isnin)	'Warm-up' and 'stretching'	(15 minit)	
	Latibtubi 'Drills'	(20 minit)	2 x 50m
	- Arm Action Drills		
	- Running Balance		
	- Ankling		
	- Straight Leg Shuffle		
	- Butt-kickers		
	- Wall slides		
	- 'B' March		
	- 'A' Skips		
	Rehat	(5 minit)	
	'Short Jumping'	(30 minit)	4 exercises x 3 sets of 6 reps
	- Standing triple jump		
	- Standing long jump		
	- Jumping in place from half-squat		
	- Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone)		
- Standing triple jump			
- Standing long jump			
- Jumping in place from half-squat			
Jogging	(10 minit)		
Permainan Kecil	(25 minit)		
'Warm-down'	(15 minit)		

Minggu	Jenis Latihan	(Masa)	Ulangan (Reps)/ Jarak
9 (Khamis)	'Warm-up' and 'stretching' Latibtubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat Sprint drills Latihan kemahiran dan teknik lompatan Permainan kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (15 minit) (15 minit) (35 minit) (15 minit)	2 x 50m 10 x 30m
10 (Isnin)	'Warm-up' and 'stretching' Latibtubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Short Jumping' Jumping over hurdles (about one meter apart) - Five low hurdles - Five hurdles of various heights - Put two hurdles together and jump over with two legs 'Long Jumping' (Intensiti Tinggi) - Jumping or hopping over seven or more cones - Alternate step-ups on bench or step for 30 seconds or more. Latihan kemahiran dan teknik lompatan Permainan Kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (20 minit) (15 minit) (15 minit)	2 x 50m 3 x 2 x 6 reps 2 x 30m 2 x 30m 2 x 30m
10 (Khamis)	'Warm-up' and 'stretching' Latih tubi 'Drills' - Arm Action Drills - Running Balance - Ankling - Straight Leg Shuffle - Butt-kickers - Wall slides - 'B' March - 'A' Skips Rehat 'Short Jumping' - Standing triple jump - Standing long jump - Jumping in place from half-squat - Jumps in place (double-leg tuck, single-leg tuck, pike, split-squat, squat jumps, forward and backward over cone, side to side over cone) 'Short Jumping' Jumping over hurdles (about one meter apart) - Five low hurdles - Five hurdles of various heights - Put two hurdles together and jump over with two legs Jogging Permainan Kecil 'Warm-down'	(15 minit) (20 minit) (5 minit) (20 minit) (20 minit) (10 minit) (15 minit) (15 minit)	2 x 50m 4 x 4 x 6 reps 4 x 4 x 30m

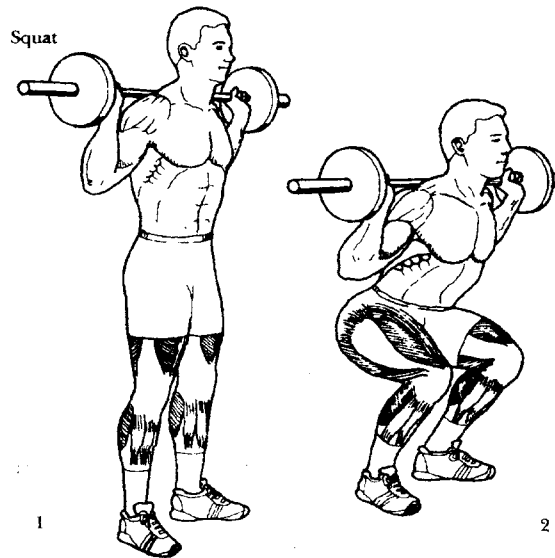
LAMPIRAN C

**Program latihan (Kumpulan Rawatan)
Latihan Bebanan Tambahan pada setiap hari Sabtu
Selama 1 jam**

<i>Minggu</i>	<i>Jenis Latihan (Masa)</i>	<i>Ulangan (Reps)/ Jarak</i>
1 - 10	Warm-up (Jump rope) 100 skips / Jogging (5 minit)	
	Stretching (10 minit)	
	Aktiviti Latihan Bebanan (30 minit)	
	- 'Squat' (Barbell di atas bahu dengan sokongan kawan)	8 - 12 reps (Kaedah 'one set of an exercise to muscular failure')
	- 'Narrow Stance Squat' (Barbell di atas bahu dengan sokongan kawan)	
	- 'Heel raises' (barbell di atas bahu dengan sokongan kawan)	
	- 'Hamstring curls'	
	- 'Leg extension'	
	- 'Lunges' ('Dumbbell/ Barbell')	
	Warm-down (15 minit)	

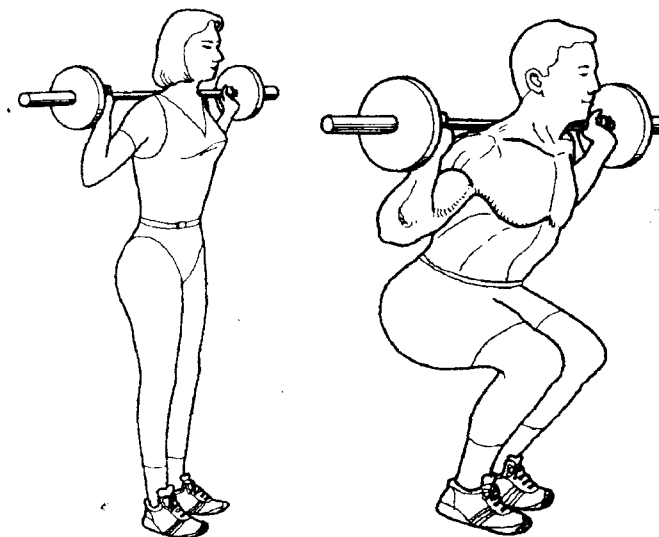
Latihan Bebanan yang dijalankan oleh Kumpulan Rawatan

1. 'Two-leg squat'



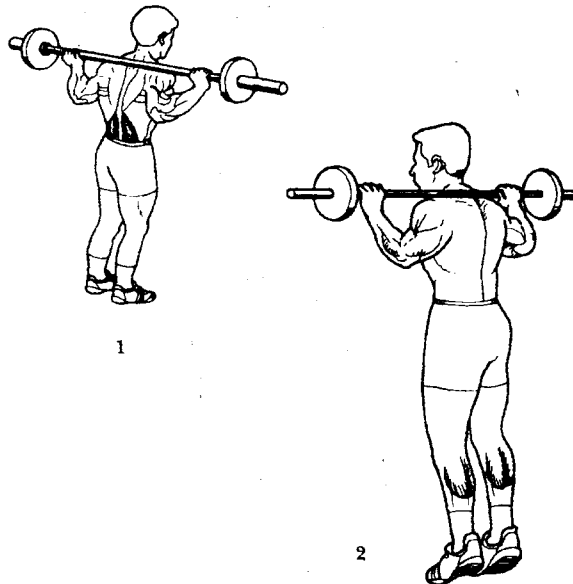
Latihan squat adalah bertujuan untuk membina otot-otot quadriceps. Beratan dipusatkan pada bahagian bahu dengan kedua-dua belah tangan mengawal 'barbell'. Sambil berdiri dengan kedudukan kaki sedikit dijarkan, pergerakan yang dilakukan ialah merendahkan dan menurunkan badan dengan cara membengkokkan lutut sehingga sudut 90°. Naik dan berdiri semula pada kedudukan asal dan ulangi perbuatan. Gerak kerja ini menguatkan dan mengembangkan otot pada bahagian 'quadriceps'.

2. 'Narrow Stance Squat'



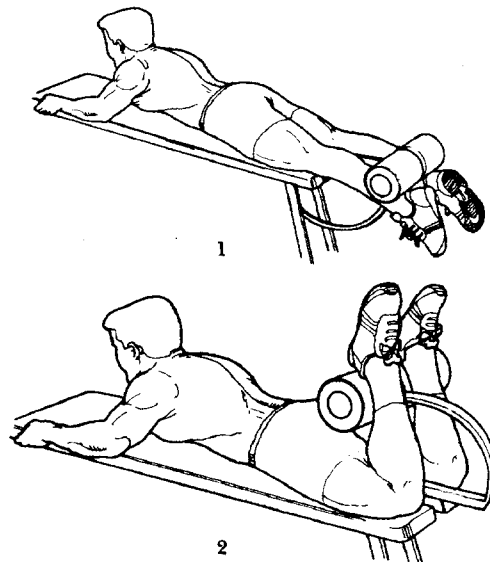
Gerak kerja hampir sama dengan 'Two-leg squat'. Cuma kedudukan kaki sedikit dirapatkan dan ini dapat membina otot-otot pada sebelah luar 'quadriceps'.

3. 'Heel raises'



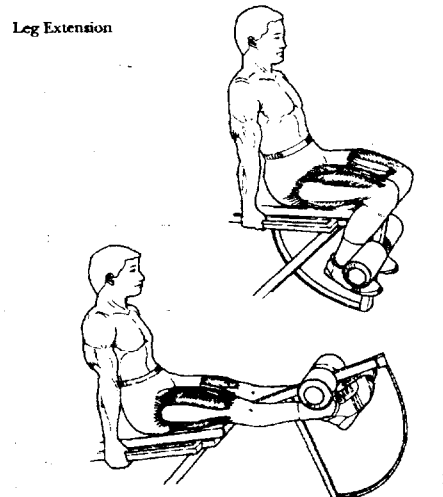
Gerak kerja ini bertujuan untuk menguat dan membina otot-otot betis – 'gastrocnemius'. Aktiviti ini dilakukan sambil berdiri dan bebanan yang digunakan iaitu 'barbell' diletakkan pada atas bahu. Gerak kerja ini dijalankan dengan membuat dirian di atas hujung jari sambil bahagian tumit dinaikkan. Kemudian ulangi perbuatan 'turun-naik-turun' dan berdiri di atas hujung jari kaki.

4. 'Hamstring curls'



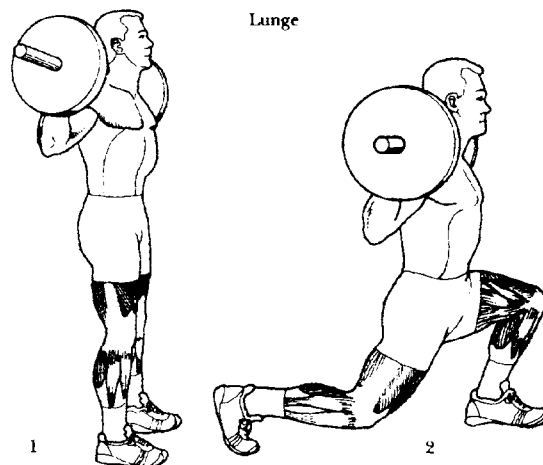
Aktiviti ini amat istimewa untuk membina kekuatan otot bahagian 'hamstrings'. Dalam kedudukan baring meniarap, kedua-dua belah kaki diselitkan pada 'pad' dari arah belakang pergelangan kaki 'achilles tendon'. Tangan pula digunakan untuk mengimbangi badan. Gerak kerja dijalankan dengan mengangkat kedua-dua belah kaki secara membengkok ke belakang sehingga pada sudut 90°. Turunkan semula kaki pada kedudukan asal dan ulangi pergerakan.

5. 'Leg extension'



Menerusi aktiviti ini, dua bahagian berasingan iaitu 'biceps femoris' dan 'vastus medialis' akan mendapat kesan tambahan. Jika dibandingkan dengan latihan 'squats', teknik ini lebih berkesan untuk membina otot-otot 'quadriceps' dan 'hamstrings'. Bahagian atas pergelangan kaki diletakkan pada 'pad' manakala badan berkedudukan lurus sambil kedua-dua tangan bertindak membantu. Ketika gerak kerja mengangkat dilakukan, otot 'anterior quadriceps' akan dibina dan diperkuatkan manakala ketika gerak kerja menurunkan kaki dilakukan otot bahagian 'vastus medialis' pula dibina.

6. 'Lunges'



Kaedah 'Lunges' juga meletakkan berat dibahu dan kedua-dua belah tangan bertindak mengawalinya. Namun demikian, sewaktu gerak kerja merendahkan badan, sebelah kaki bergerak selangkah ke hadapan manakala sebelah lagi kekal di belakang. Kemudian berdiri semula pada kedudukan asal dan ulangi pergerakan. Semasa membuat ulangan untuk set kedua, kaki yang bersebelahan pula bergerak selangkah ke hadapan, manakala yang sebelah lagi kekal di belakang dan ulangi aktiviti. Gerak kerja ini didapati 'quadriceps' pada kedua-dua belah kaki dibina ototnya manakala 'gastrocnemius' pada bahagian kaki yang berada di belakang diperkuatkan.

- (Ilustrasi dari Dahari, 2001).

Ujian 'Vertical Jump' (Sargent 1921)



Test Objective. To measure explosive leg power.

Age Level. Nine through adulthood.

Equipment. A yardstick or measuring tape, chalk, and a wall of sufficient height.

Validity. .78 using a criterion test of four power events in track and field.

Reliability. .93.

Objectivity. Coefficients $>.90$ have been reported.

Norms. Table 12.9 reports norms for ages ten through seventeen-plus.

Administration and Directions.

A yardstick or tape measure is taped to the wall to measure the distance between two chalk marks. The test performer (1) stands with the dominant side toward the wall and feet flat on the floor, (2) holding a piece of chalk (1 inch in length) in the dominant hand, reaches as high as possible and makes a mark on the wall; and (3) jumps as high as possible and makes another mark at the height of the jump. Three trials are administered. (Rather than using a piece of chalk to make the mark, chalk can be placed on the fingertips.) All test performers should practice the jump until it can be executed correctly before attempting the test.

Scoring. For each jump the score is the distance between the two chalk marks, measured to the nearest half inch. The greatest distance is the test score.

- Miller (2002)

BORANG SKOR : KUMPULAN KAWALAN

Sampel	Ujian 'Vertical Jump'	
	Ujian Pra (inci)	Ujian Pos (inci)
1	10.5	12.0
2	12.0	14.5
3	13.5	15.0
4	12.8	14.2
5	11.5	14.0
6	8.6	11.2
7	9.7	12.0
8	9.1	11.5
9	14.3	17.0
10	15.0	16.5
11	9.4	12.0
12	17.0	19.5
13	15.0	16.5
14	19.0	21.0
15	15.0	17.2
16	11.9	14.0
17	12.2	14.0
18	11.9	13.5
19	13.5	15.4
20	14.0	16.2
21	21.5	22.5
22	13.0	15.0
23	12.1	14.0
24	11.0	13.2
25	14.0	16.1
26	12.2	14.0
27	13.5	15.2
28	16.0	18.0
	Min = 13.1857	Min = 15.1857