PE Fitness Plan

Year 11 Personal Fitness Assessment and Planning: Before

Test	Fitness Component	Score	Rating
Multi Stage Fitness Test (Beep Test)	Aerobic Endurance	8.2	Excellent
Maximum Pushups	Muscular Endurance (and strength) of Upper Body	32	Excellent
Sit and Reach	Flexibility	44	Outstading
Illinois Agility Test	Agility/Speed	18.63	Average
Abdominal Brace	Core Strength and Endurance(abdominals and lower back)	7	/
Vertical Jump	Lower Body Power	42	Average

Goal:
This fitness plan is designed as a special training for the Divisional 1 Swimming Competition on the 23rd February 2014. The events I will be participating in is 50M ButterflySC and 100M BackstrokeSC. Combining the results of my fitness test and the skills that I will need to perform well during the events, I have concluded that I will need to focus on improving my **strength** and **aerobic endurance** as my health related components of fitness, and **speed**, **power**, **agility** as well as **reaction time** for skills related components of fitness.

Reasoning for selected components of fitness:
I need to improve my strength in both upper body muscles (triceps, biceps and core) as butterfly is a stroke that is highly dependent on upper body. Improving my strength would improve the quality of each butterfly stroke, reducing the amount of energy required yet improving the performance of the pull. Speed and reaction time is also an critical part of my training as I am participating in short events during the competition, as short as milliseconds can affect the results of the competition, or determine whether I will meet the meet qualifications. According to my fitness results, my score for agility was only average. It would be helpful to speed my turns if I can improve my agility. Similar to strength, power is important as quick, and explosive power is important in swimming short distance events. Aerobic endurance is important for a swimmer in general as better aerobic endurance can ensure more stability in my performance.

Fitness Plan: Week 1 to 3 (Monday February 3rd to Friday February 21st 2014)

Day/Venue	Training Session Details	Component of Fitness
Monday 6pm to 7:30pm at gym facilities at home	**Land Training** 10 minutes of active stretches for upper and lower body	Flexibility & Warm Up
	30 minutes of running on the treadmill Intensity: Increase from 40% to 85% (Fartlek) *Begin at 5km/h - this is a comfortably fast walking pace, and increase the speed by 1km/h after every 5 minutes to 10km/h.*	Aerobic Endurance / Local Muscular Endurance
	5 minutes of walking on the treadmill Intensity: Decrease from 90% to 40% (Fartlek) *Gradually descend your pace after the 30 minute run to approximately 4km/h to cool down.*	Cool Down & relief of lactate acid
	2 minutes of active stretches for lower body *Release stress and lactate acid from running*	Flexibility & relief of lactate acid
	Drill 1: 3 x 20 push ups on my knees with 1 minute rest (to be completed in 10 minutes) Intensity: Approximately 80% (Resistance Training) *This would increase the power and muscular endurance in arm muscles. Important for butterfly stroke as it is very dependent on core and upper body strength.*	Strength, Power & Muscular Endurance
	Drill 2: 3 x 1 minute abdominal brace with 45seconds rest (to be completed in 5 minutes) Intensity: Approximately 70% (Resistance Training) *This would increase the power and muscular endurance in core muscles. Important for butterfly stroke as it is very dependent on core and upper body strength.*	Strength, Power & Muscular Endurance
	Drill 3: 3 x 15 squats with 1 minute rest (to be completed in 5 minutes) Intensity: Approximately 75% (Resistance Training) *This would increase the power and muscular endurance in tight and leg muscles. Important for backstroke stroke as it is very dependent on lower body strength and kicking.*	Strength, Power & Muscular Endurance
	10 minutes of active stretches for upper and lower body	Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Tuesday 7pm to 8:30pm at Hong Kong Sports Institute or Ma On Shan Public Swimming Pool (Depends on whether I am attending swimming team training or individual)	**<u>Swimming</u>** *Note: Today is mainly aerobic endurance to relief the stress and lactate acid gained from intense session on monday* <u>10 minutes of active stretches for upper and lower body</u> <u>800m S.K.I.P. completed in approximately 20 minutes</u> <u>Intensity: 70% (Circuit)</u> *S = 200m Freestyles Swim* *K = 200m Kicking* *I = 200m Individual Medley* *P = 200m Pull* *This warms up all muscles groups we will be using during the session.* <u>4 x 200m Drill to be completed in approximately 28 minutes</u> <u>Intensity: 80% (Long Intervals)</u> <u>Rest Ratio: 1:1 (Can shorten with time depending on improvement)</u> *1st 200m: butterfly drill, 50m butterfly swim)* *2nd 200m: 2x (50m backstroke drill, 50m backstroke swim)* - *Repeat 1st and 2nd 200m* *To work on refining the skills of both strokes to improve quality of performance.* <u>8 x 30m Sprint on 1 minute each to be completed in 8 minutes</u> <u>Intensity: 90% (Short Intervals)</u> *Start at 15m from the wall (False start rope), turn at the wall and sprint out to 15m* *1 x Butterfly, 1 x Backstroke (Repeat)* *Work on turning at the wall each time improves agility.* <u>Cool Down: 400m swim</u> <u>Intensity: Decrease from 40%</u> <u>5 minutes of active stretches for upper and lower body</u>	Flexibility & Warm Up Skills, Power (Upper and Lower Body) & Warm Up Aerobic Endurance & Skills Speed & Agility Cool Down Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Thursday 7pm to 8:30pm at Hong Kong Sports Institute or Ma On Shan Public Swimming Pool ((Depends on whether I am attending swimming team training or individual)	**<u>Swimming</u>** *Note: Today is mainly working on anaerobic speed and strength as the swimmer had Wednesday recover from Monday and Tuesdays's training.* <u>10 minutes of active stretches for upper and lower body</u> <u>800m S.K.I.P. completed in approximately 20 minutes</u> <u>Intensity: 70% (Circuit)</u> *S = 200m Freestyles Swim* *K = 200m Kicking* *I = 200m Individual Medley* *P = 200m Pull* *This warms up all muscles groups we will be using during the session.* <u>6 x 100m Pull on 1min 50 secs per 100m, to be completed in approximately 12 minutes</u> <u>Intensity: 80% (Long Intervals)</u> <u>Rest Ratio: 1:1 (Can shorten with time depending on improvement)</u> - *1 x 100m butterfly pull, 1 x 100m backstroke pull (repeat)* - *Used to train upper body muscular strength (arm muscles) by adding weight to each pull.* <u>6 x 100m Kick on 2mins 10 secs per 100m, to be completed in approximately 15 minutes</u> <u>Intensity: 80% (Long Intervals)</u> <u>Rest Ratio: 1:1 (Can shorten with time depending on improvement)</u> - *1 x 100m butterfly kick, 1 x 100m backstroke kick (repeat)* - *Used to train lower body muscular strength (leg muscles).* <u>2 rounds of 8 x 50m sprint on 2 mins per 50m, to be completed in approximately 35 mins.</u> <u>Intensity: 95 - 100% (Short Intervals)</u> <u>Rest Ratio: 1:5</u> - *One round butterfly, one round backstroke* - *Start each 50m with a dive from the diving blocks to train the skills of diving and reaction time in response to starting whistle.* <u>Cool Down: 400m swim</u> <u>Intensity: Decrease from 40%</u> <u>5 minutes of active stretches for upper and lower body</u>	 Flexibility & Warm Up Skills, Power (Upper and Lower Body) & Warm Up Muscular Endurance & Power Muscular Endurance & Power Speed & Reaction Time Cool Down Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Sunday 4:30pm to 6:30pm at Shatin Jokey Club Public Pool or at gym and swimming facilities at home (Depends on whether I am attending swimming team training or individual)	**Land Training + Swimming**	
	10 minutes of active stretches for upper and lower body	Flexibility & Warm Up
	30 minutes of running on the treadmill (or around the pool) Intensity: Increase from 40% to 85% (Fartlek) *Begin at 5km/h - this is a comfortably fast walking pace, and increase the speed by 1km/h after every 5 minutes to 10km/h.*	Aerobic Endurance / Local Muscular Endurance
	5 minutes of walking on the treadmill Intensity: Decrease from 90% to 40% (Fartlek) *Gradually descend your pace after the 30 minute run to approximately 4km/h to cool down.*	Cool Down & relief of lactate acid
	2 minutes of active stretches for lower body *Release stress and lactate acid from running*	Flexibility & relief of lactate acid
	Drill 1: 3 x 20 tricep dips with 1 minute rest (to be completed in 6 minutes) Intensity: Approximately 80% (Resistance Training) *Increase the power and muscular endurance in arm muscles. Important for butterfly stroke as it is very dependent on core and upper body strength.*	Strength, Power & Muscular Endurance
	Drill 2: 3 x 20 oblique crunches with 1 minute rest rest (to be completed in 6 minutes) Intensity: Approximately 80% (Resistance Training) *Increase the power and muscular endurance in core muscles. Important for butterfly stroke as it is very dependent on core and upper body strength.*	Strength, Power & Muscular Endurance
	Drill 3: 3 x 20 forward and reverse lunges with 1 minute rest (to be completed in 6 minutes) Intensity: Approximately 75% (Resistance Training) *This would increase the power and muscular endurance in tight and leg muscles. Important for backstroke stroke as it is very dependent on lower body strength and kicking.*	Strength, Power & Muscular Endurance
	5 minutes of active stretches for upper and lower body	Flexibility, Cool Down & relief of lactate acid
	400m freestyle swim to be completed in approximately 8mins Intensity: 60% (continues training) *A warm down to release muscle stress stress from land exercise*	Cool Down & relief of lactate acid
	8 x 15m Sprint on 45 secs each to be completed in 6 minutes Intensity: 95% (Short Intervals) *Start at 15m from the wall (False start rope)* *1 x Butterfly, 1 x Backstroke (Repeat)*	Speed & Reaction Time
	Cool Down: 400m swim Intensity: Decrease from 40%	Cool Down

Year 11 Personal Fitness Assessment and Planning: After 3 weeks of training

Test	Fitness Component	Previous Score	Current Score
Maximum Pushups	Muscular Endurance (and strength) of Upper Body	32	45
Illinois Agility Test	Agility/Speed	18.63	18.12
Abdominal Brace	Core Strength and Endurance(abdominals and lower back)	7	7
Vertical Jump	Lower Body Power	42	46

Record of Heart rate after Aerobic Exercise:

Exercise	Day	1st Week	3rd Week
30 minute treadmill run	Monday & Sunday	173	165
4 x 200m Drill	Tuesday	162	156

Competition Results

Event	Previous Time (m:s.ms)	Competition Time (m:s.ms)
50m Butterfly	33.63	33.30
100m Backstroke	1:16.13	1:16.00

Fitness Plan: Week 4 to 6 (Monday February 24th to Friday March 14th 2014)
All changes are **stated** and explained in red. ~~Previous program that has been changed is crossed out.~~

Day/Venue	Training Session Details	Component of Fitness
Monday 6pm to 7:30pm at gym facilities at home	**Land Training** 10 minutes of active stretches for upper and lower body	Flexibility & Warm Up
	30 minutes of running on the treadmill Intensity: ~~Increase from 40% to 85%~~ (Fartlek) ~~*Begin at 5km/h*~~ *- this is a comfortably fast walking pace, and increase the speed by 1km/h after every 5 minutes to 10km/h.* ***30 minute running on the treadmill, beginning at the speed 6km/h to 10km/h. Intensity of 50% to 85%.*** *I have increased the intensity by increasing the starting speed and the period of time at high intensity. This is because the drop of heart rate from week 1 to week 3 shows improvement in my aerobic endurance.*	Aerobic Endurance / Local Muscular Endurance
	5 minutes of walking on the treadmill Intensity: Decrease from 90% to 40% (Fartlek) *Gradually descend your pace after the 30 minute run to approximately 4km/h to cool down.*	Cool Down & relief of lactate acid
	2 minutes of active stretches for lower body *Release stress and lactate acid from running*	Flexibility & relief of lactate acid
	Drill 1: 3 x 20 push ups ~~on my knees~~ with 1 minute rest (to be completed in 10 minutes) Intensity: ~~Approximately 80%~~ (Resistance Training) ***3 x 20 push ups on my feet with 1 minute rest. Intensity 85%.*** *I have demonstrated improvement in upper body power (from 32 to 45 pushups). The increase of intensity and difficulty would allow my to further improve,rather than maintaining at the same level.*	Strength, Power & Muscular Endurance
	Drill 2: 3 x 1 minute abdominal brace with 45seconds rest (to be completed in 5 minutes) Intensity: Approximately 70% (Resistance Training) *I am not increasing the intensity of this exercise as I did not demonstrate improvement in my test, but only maintaining a steady performance.*	Strength, Power & Muscular Endurance
	Drill 3: ~~3 x 15 squats~~ with 1 minute rest (to be completed in 5 minutes) Intensity: ~~Approximately 75%~~ (Resistance Training) ***3 x 20 squats 1 minute rest. Intensity 80%.*** *Increase of intensity by adding more of the exercise each time as my lower body power have shown improvement in the vertical jump test of an extra 4cm.*	Strength, Power & Muscular Endurance
	10 minutes of active stretches for upper and lower body	Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Tuesday 7pm to 8:30pm at Hong Kong Sports Institute or Ma On Shan Public Swimming Pool (Depends on whether I am attending swimming team training or individual)	**Swimming** 10 minutes of active stretches for upper and lower body 800m S.K.I.P. completed in approximately 20 minutes Intensity: 70% (Circuit) *S = 200m Freestyles Swim* *K = 200m Kicking* *I = 200m Individual Medley* *P = 200m Pull* *This warms up all muscles groups we will be using during the session.* 4 x 200m Drill to be completed in approximately 28 minutes Intensity: ~~80%~~ (Long Intervals) Rest Ratio: 1:1 (Can shorten with time depending on improvement) *1st 200m: butterfly drill, 50m butterfly swim)* *2nd 200m: 2x (50m backstroke drill, 50m backstroke swim)* - *Repeat 1st and 2nd 200m* ***4 x 200m Drill to be completed in 24 minutes. Intensity 85%.*** *I have increased the intensity decreasing the time limit to complete the same amount of exercise. This is because the drop of heart rate from week 1 to week 3 shows improvement in my aerobic endurance.* ~~8 x 30m~~ Sprint on 1 minute each to be completed in 8 minutes Intensity: 90% (Short Intervals) *Start at 15m from the wall (False start rope), turn at the wall and sprint out to 15m* ~~1 x Butterfly, 1 x Backstroke (Repeat)~~ ***12 x 30m Sprint on 45 seconds each. Intensity 95%. Stroke changed to IM order (2x of each stroke)*** *I have increased the intensity by decreasing the time limit to complete the same amount of exercise and increasing the amount. This is because the improvement in my competition times shows improvement in my speed. I changed to IM strokes to work on speed of other strokes and muscular endurance of other areas as the competition is now over and I do not have to focus specifically on competition events.* Cool Down: 400m swim Intensity: Decrease from 40% 5 minutes of active stretches for upper and lower body	Flexibility & Warm Up Skills, Power (Upper and Lower Body) & Warm Up Aerobic Endurance & Skills Speed & Agility Cool Down Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Thursday 7pm to 8:30pm at Hong Kong Sports Institute or Ma On Shan Public Swimming Pool ((Depends on whether I am attending swimming team training or individual)	**Swimming** 10 minutes of active stretches for upper and lower body 800m S.K.I.P. completed in approximately 20 minutes Intensity: 70% (Circuit) *S = 200m Freestyles Swim* *K = 200m Kicking* *I = 200m Individual Medley* *P = 200m Pull* ~~6 x 100m~~ Pull on ~~1min 50 secs~~ per 100m, to be completed in approximately 12 minutes Intensity: ~~80%~~ (Long Intervals) Rest Ratio: 1:1 (Can shorten with time depending on improvement) - *1 x 100m butterfly pull, 1 x 100m backstroke pull (repeat)* ***8 x 100m Pull on 1min 40 secs per 100. Intensity 85%.*** *I have increased the intensity by increasing the repetitions and time to be completed in as the increase from 32 to 45 pushups shows that I have improved my upper body muscular endurance and power. The increase of intensity and difficulty would allow my to further improve,rather than maintaining at the same level.* ~~6 x 100m~~ Kick on ~~2mins 10 secs~~ per 100m, to be completed in approximately 15 minutes Intensity: ~~80%~~ (Long Intervals) Rest Ratio: 1:1 (Can shorten with time depending on improvement) - *1 x 100m butterfly kick, 1 x 100m backstroke kick (repeat)* ***8 x 100m Kick on 2mins per 100. Intensity 85%.*** *I increased the intensity by increasing the repetitions and time it is to be completed in. This is because the increase from 42 to 46 in my vertical jump results shows that I have improved my lower body muscular endurance and power. The increase of intensity and difficulty would allow my to further improve,rather than maintaining at the same level.* 2 rounds of 8 x 50m sprint on 2 mins per 50m, to be completed in approximately 35 mins. Intensity: 95 - 100% (Short Intervals) Rest Ratio: 1:5 - ~~*One round butterfly, one round backstroke*~~ - *Start each 50m with a dive from the diving blocks* ***Changed the stroke of this program to IM order (2x of each stroke)*** *I changed to IM strokes to work on speed of other strokes and muscular endurance of other areas as the competition is now over and I do not have to focus specifically on competition events.* Cool Down: 400m swim Intensity: Decrease from 40% 5 minutes of active stretches for upper and lower body	Flexibility & Warm Up Skills, Power (Upper and Lower Body) & Warm Up Muscular Endurance & Power Muscular Endurance & Power Speed & Reaction Time Flexibility, Cool Down & relief of lactate acid

Day/Venue	Training Session Details	Component of Fitness
Sunday 4:30pm to 6:30pm at Shatin Jokey Club Public Pool or at gym and swimming facilities at home (Depends on whether I am attending swimming team training or individual)	**Land Training + Swimming** 10 minutes of active stretches for upper and lower body 30 minutes of running on the treadmill (or around the pool) Intensity: Increase from ~~40% to 85%~~ (Fartlek) ~~*Begin at 5km/h -*~~ *this is a comfortably fast walking pace, and increase the speed by 1km/h after every 5 minutes to 10km/h.* ***30 minute running on the treadmill, beginning at the speed 6km/h to 10km/h. Intensity of 50% to 85%.*** *(Explained in MONDAY's training session details)* 5 minutes of walking on the treadmill Intensity: Decrease from 90% to 40% (Fartlek) *Gradually descend your pace after the 30 minute run to approximately 4km/h to cool down.* 2 minutes of active stretches for lower body *Release stress and lactate acid from running* Drill 1: ~~3 x 20~~ tricep dips with 1 minute rest (to be completed in 6 minutes) ~~Intensity: Approximately 80%~~ (Resistance Training) ***3 x 30 tricep dips 1 minute rest. Intensity 85%.*** *I have demonstrated improvement in upper body power (from 32 to 45 pushups). The increase of intensity and difficulty would allow my to further improve,rather than maintaining at the same level.* Drill 2: 3 x 20 oblique crunches with 1 minute rest rest (to be completed in 6 minutes) Intensity: Approximately 80% (Resistance Training) *I am not increasing the intensity of this exercise as I did not demonstrate improvement in my test, but only maintaining a steady performance.* Drill 3: ~~3 x 20 forward and reverse lunges~~ with 1 minute rest (to be completed in 6 minutes) Intensity: Approximately ~~75~~% (Resistance Training) ***3 x 30 forward and reverse lunges 1 minute rest. Intensity 80%.*** *Increase of intensity by adding more of the exercise each time as my lower body power have shown improvement in the vertical jump test of an extra 4cm.* 5 minutes of active stretches for upper and lower body 400m freestyle swim to be completed in approximately 8mins Intensity: 60% (continues training) *A warm down to release muscle stress stress from land exercise*	Flexibility & Warm Up Aerobic Endurance / Local Muscular Endurance Cool Down & relief of lactate acid Flexibility & relief of lactate acid Strength, Power & Muscular Endurance Strength, Power & Muscular Endurance Strength, Power & Muscular Endurance Flexibility, Cool Down & relief of lactate acid Cool Down & relief of lactate acid

	8 x 15m Sprint on 45 secs each to be completed in 6 minutes Intensity: 95% (Short Intervals) *Start at 15m from the wall (False start rope)* ~~1 x Butterfly, 1 x Backstroke (Repeat)~~ ***Changed the stroke of this program to IM order (2x of each stroke)*** *I changed to IM strokes to work on speed of other strokes and muscular endurance of other areas as the competition is now over and I do not have to focus specifically on competition events.* Cool Down: 400m swim Intensity: Decrease from 40%	Speed & Reaction Time Cool Down

Final Reflection:

I feel that this fitness plan was effective, as has helped me improve my fitness level in both general components of fitness and ones that specifically targets the skills required to improve my performance in the Divisional 1 competition after week 3. In week 4 to 6 of my plan I mainly focused on progressive overload on several of the drills as I demonstrated improvement in majority of the components of fitness the plan is designed to train. It was effective as I considered whether the intensity and amount of work included was appropriate for my fitness level by comparing the plan with programs I have done before and evaluating it with my personal experience. Furthermore, I think that thins plan is effective as I have targeted the skills specific for the event, but also considered the stress of exercise and amount of recovery time required. For example, monday's workout has an extremely high intensity, hence, tuesday's workout has a lower intensity, targeting aerobic endurance instead of speed. I think that this plan would have been more effective if I had more time to carry out the training. I only week 1, 3, 4 and 5 of the plan due to my swimming team training schedules and school assessments.