

INTRO TO SYNCHRO SWIMMING COACHING

SYNCHRO SWIM NEW ZEALAND

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SYNCHRO SWIM NEW ZEALAND



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SYNCHRONISED SWIMMING



Synchronised swimming is an aquatic sport that has elements of different disciplines such as swimming, dance and gymnastics consisting of swimmers (either solos, duets, trios, combos, or teams) performing a synchronised routine of elaborate moves in the water, accompanied by music.

Synchronised swimming demands advanced aquatic skills, and requires great strength, endurance, flexibility, grace, artistic performance and precise timing, as well as exceptional breath control when upside down underwater.

FINA or Fédération internationale de natation amateur (English: International Swimming Federation) is the international federation recognised by the International Olympic Committee (IOC) for administering international competition in five aquatic sports, including Synchronised Swimming. Every four years, FINA reviews the rules in regards Synchronised Swimming as a competitive sport. These rules apply for most regional, national and international competitions.

In New Zealand, Synchro Swim New Zealand (SSNZ) is the recognised National Sport Organisation as well as the national federation for the sport in New Zealand. We oversee, govern and administer the sport at national level.

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COACHING



Coaching approach

SSNZ promotes and supports an athlete-centred or participant-focus coaching approach.

A athlete-centred coaching is exactly what it says – the core philosophy is to understand and coach to an athlete's motivation, ambition and capability. The characteristics of this approach provide a focus for effective coaching, helping to develop athletes who take responsibility for their own learning, regardless of the coaching community they participate in, or their stage of development.

What kind of behaviours do we observe in coaches and athletes that work with this approach?

COACH	ATHLETE
<ul style="list-style-type: none">EmpoweringQuestioningListening / observingCollaborationSelf awarenessSelf reflection	<ul style="list-style-type: none">CommitmentOwnershipResponsibilityAutonomousDecision Making

So... what are the practical implications for us as Athlete-Centred Coaches?



Take time to develop your coaching philosophy: Why have you decided to be involved in the sport in a coaching role? Why do you think coaches are important? What are your core values and beliefs about coaching and youth sport? Taking time to think on these questions will help you better understand yourself and your role as a coach.



Coach the people not the sport: Moving away from the mindset of "sport for the sake of sport" and understanding that as coaches your role is not just to train a skill, but to help people to unlock their potential and enhance their lives through sport. When coaching beginner swimmers, their needs must be put ahead of our needs, the clubs' needs or the sport needs.



Understand your participants' needs: When coaching individuals and teams, take time to understand what their needs are from a physical, socio-emotional, cognitive and spiritual dimension. Understanding their needs will help you design programmes and sessions that are age and stage appropriate and that cater to your participants motivations, interests and capability.



Unlock creativity in your athletes: Synchronised swimming is a sport in which creativity is crucial and this is a skill that can be nourished from early stages. For example, in your sessions you can provide different opportunities (games, warm ups, and water music interpretations, acrobatic moves, etc) for the swimmers to encourage creative and critical thinking.



Develop independence & autonomy: Swimmers who understand why they do what they do and who are given opportunities to have a say in their sessions, most likely will develop a sense of autonomy and ownership which will help to develop their motivation to be involved in Synchro for longer.



Facilitate learning: As a coach, part of your role is also to teach the movement skills and techniques related to the sport. There are different approaches and theories around teaching movement skills, but the questioning, guided discovery and self-teaching nicely align to the principles of an athlete-centred coaching approach.

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Coaching foundation level Synchronised Swimmers

When we talk about “foundation level” we refer to participants who are going through their first experiences in synchro, learning the basic skills and understanding of the sport at the same time as developing the confidence and the motivation to be involved in this sport.

“How old does my child need to be to start Synchro?” There is no right or wrong answer to this very common question. The key is in the quality of the programme and the coaching. If the programme is athlete-centred and caters for the characteristics, needs, motivations and interests of the different age groups and developmental stages, it doesn't really matter how old the participants are.

To bring the Athlete-Centred or participant-focused approach to life, Sport New Zealand has developed the “Sport NZ Physical Literacy Approach” which takes a holistic view of the participant that considers their physical; social and emotional; cognitive; and spiritual needs. By understanding that these dimensions influence the needs of every participant, within their specific environments, we can provide synchronized swimming experiences that inspire ongoing participation.

In New Zealand, most Synchro beginners are primary school aged kids who are competent and confident in the aquatic environment. This life stage encompasses the middle and pre-teen years where we become more involved in a range of environments, experiencing primary and intermediate schools club activities and many community opportunities. These environments and experiences will influence our ongoing choices to engage in physical activity and sport. Variety, enjoyment and skill development are crucial, along with a positive, supportive, empathetic, environment that enables us to learn and be challenged at our own, individual pace.

Primary/intermediate aged swimmers - needs & considerations

PHYSICAL	SOCIO - EMOTIONAL
<ul style="list-style-type: none">• Varied and modified activities to match their ability and encourage maximum participation• Experiences that consider enjoyment and impact on long term involvement• Opportunity to develop skills and attributes that can be used in a range of sports and physical activities of their choosing.	<ul style="list-style-type: none">• Encouragement and positive reinforcement as they learn from knowledgeable, motivating, responsive people• Time to socialise with others as well as time to be independent• Opportunities that help them to become accepting of others and their physical, social and cultural differences.
COGNITIVE	SPIRITUAL
<ul style="list-style-type: none">• To be creative, imaginative and curious so they can explore and solve problems for themselves• Opportunity to make up their own games, rules, and to learn about negotiation, teamwork and how to accept and learn from both winning and losing• Develop confidence, self-awareness and understand when they can take risks.	<ul style="list-style-type: none">• An environment that fosters them to question and form their own beliefs, attitudes and values• Support to enable them to participate in the spiritual and cultural customs of their whanau, family and community that are a part of sport and physical activity• Support to affirm their spiritual and cultural foundation and feel confident to express this if required.

What does quality coaching look like for young people involved in Synchro?



Needs of participants are at the centre: coach's approach meets the young people's physical, emotional, social, cognitive and spiritual needs.

PHYSICAL <ul style="list-style-type: none">- Consider what are the swimmers' bodies capable of from an anatomical and physiological perspective- Be aware of what skills the swimmers have learnt previously- Have a clear understanding what syncho skills do the swimmers need to learn and master to perform at the level they have decided to participate- S&C and flexibility, how can you help swimmers to improve their strength, endurance, speed and flexibility to prevent injuries	SOCIO - EMOTIONAL <ul style="list-style-type: none">- Plan your sessions considering the swimmers' motivations- Ensure sessions have a social component as one of the reasons young people practice sport is to "hang out with their friends"- Ensure you treat all your swimmers equally, no matter their capability or their aspirations- Promote open and respectful communication amongst your team- Be approachable and friendly
COGNITIVE <ul style="list-style-type: none">- Consider swimmers' attention spans and plan sessions accordingly to those- Use vocabulary that matches swimmers' level of understanding of the sport	SPIRITUAL <ul style="list-style-type: none">- Foster a team culture where everyone is valued and respected- Help swimmers to develop a sense of belonging to the team/club- Organise team building activities to get to know each other better in and outside the water



Provide options for young people to participate at the level which they feel comfortable. Not everybody chooses to do Synchro with the aspiration of representing NZ at the World Championships or to compete at Nationals. Understanding and respecting individual aspirations is the key to ensure positive experiences and continuity in the sport.



Coaches create a fun, positive and inclusive environment: the #1 reason why kids participate in sport is "to have fun", therefore coaches should make enjoyment a priority outcome in their sessions.



Provide participants with a variety of experiences that allow them to challenge themselves and learn through exploration: variety and challenge are two key factors for engagement. Young people can get bored very easily and as coaches we need to have this in mind, especially when coaching a sport that sometimes can be very monotonous and repetitive. Ensure new challenges are presented to the swimmers and be prepared to adapt those to the different levels within your group.

TEACHING BASIC SYNCHRO SKILLS

Even though Synchro is a very complex sport and to perform at high competitive level swimmers and coaches need to master a large number of skills and techniques, at the foundation level it can be simplified to make it easy for new swimmers and coaches. You don't need a deep pool, an underwater sound system or experience as a swimmer to be an effective beginner's coach and help new participants to learn to love and enjoy Synchro.

In this section we will describe some of the basic skills and techniques you can teach beginner swimmers and some progressions, drills and activities you can use.

What do participants need to be able to do before joining a Synchronised Swimming programme?

In order to ensure participants have a positive experience, we suggest that before they join the sport they are familiar with the aquatic environment and are able to:

- submerge
- control their breath in the water
- float on their front and back
- swim freestyle and/or breaststroke
- swim backstroke
- if your sessions are in deep water, swimmers MUST be able to tread water

All the above are skills and techniques that will continue to be developed throughout your Synchro programme and are going to be the base of many of the more complex skills swimmers will learn in the future.



What are the key skills and techniques we can teach Synchro beginners?

We can group these into 5 categories:

1. Basic positions
2. Propulsion techniques
3. Basic transitions
4. Figures
5. Routine skills

Tips for teaching & coaching skills

- Keep it simple
- Use different strategies: demonstrate, describe, videos, images
- Allow swimmers to explore
- Provide plenty of time to practice
- Be positive about mistakes and help swimmers to learn from them
- Recognise and praise success, no matter how big or small
- Recognise when swimmers need some extra help or are ready for more challenge

BASIC POSITIONS

Description, key teaching points & progressions

As described in the FINA Manual, in all basic positions:

A

Arm positions are optional,

B

Toes must be pointed, ankle must be extended,

C

The legs, trunk and neck are fully extended unless otherwise specified

In this section we will describe the following basic positions, as well as providing some key check points and activities to develop and master them:

- Back Layout Position
- Bent Knee Back Layout Position (sailboat)
- Ballet Leg Position
- Tub Position
- Front Layout Position
- Vertical Position
- Front Pike Position
- Vertical Bent Knee Position
- Spin Position

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POSITION	BACK LAYOUT
<p>Description</p>	<ul style="list-style-type: none"> - Body extended with face, chest, thighs and feet at the surface. - Head (ears specifically), hips and ankles in line. - Hands can be by the hips or above the head (harder) 
<p>Check points</p>	<ul style="list-style-type: none"> - Impression of full body extension - Front of the trunk, thigh and ankles dry - Stable - Head in neutral position - Balanced body tension
<p>Drills, activities & games</p>	<p>LAND-BASED</p> <p>a) Alignment activities:</p> <ul style="list-style-type: none"> - Walking on tippy-toes with arms extended by ears - In pairs, one laying on their back fully extended and partner to check key points (feet together, knees together and extended, shoulders away from ears, neck extended. To add difficulty, partner can lift the one laying down from their feet and they have to maintain the alignment by stretching and squeezing. - "Ice-block tag": when tagged, swimmers lay on their backs, fully extended, staying strong and still like an "ice-block". To free others try different things: ask the swimmers for ideas or a swimmer has to jump over the "ice-block" to free them, or lift from their feet as exercise above...be creative! <p>b) Strengthen and alignment</p> <ul style="list-style-type: none"> - Plank holds: on hands and on forearms <p>WATER-BASED</p> <p>a) Exploring floating on their backs</p> <ul style="list-style-type: none"> - Using a noodle under armpits. Explore different arm and legs positions - Using milk bottles, same as above - Feet on wall. Explore different arm positions so swimmers can feel how this affects their balance in the water and what muscles they need to contract, relax and stretch to float naturally - Body shapes: floating on their backs, explore different body shapes; e.g. different letters of the alphabet, animals... be creative! - In pairs, joined "Star Fish" <p>*Note: it is important to spend time allowing the swimmers to understand how their body behaves in the water. It is always good to use the exercises above, no matter the level of the swimmers and they will help to develop and strengthen their body awareness in the water</p> <p>b) Towards a good Back Layout position</p> <ul style="list-style-type: none"> - Feet on wall and hold one milk bottle. Focus on key check points for the position. - With milk bottles, assume a back layout and hold the position. To progress this exercise, do it in pairs, while one swimmer is lying on their back, the partner puts a floating toy or a plastic cup on the swimmer's forehead to focus on the head position. Do the same but placing the object on the feet to focus on feet together and on top of the water. - Short noodles, one in each hand. - With pool buoy or board between their feet. - Push off the wall and glide on their back and try to keep feet on top of the surface without sculling - Feet on wall, alter the arm position, aiming to keep hips, chest and face dry. Note this is an advanced activity <p>c) Back layout with arm action</p> <ul style="list-style-type: none"> - With stationary scull: <ul style="list-style-type: none"> • with pull buoy between ankles • with kickboard under feet, hips or shoulders • balancing an object on forehead or ankles - With head first scull, feet first scull, propeller or reverse propeller <ul style="list-style-type: none"> • with pull buoy between ankles • with kickboard under feet, hips or shoulders • balancing an object on forehead or ankles • joined with a partner feet-neck • relay <p>d) Other activities</p> <ul style="list-style-type: none"> - Feet to feet back layout with sculling competitions. Swimmers in back layout, joined by their feet, focus on a good back layout and try to travel head first (or feet first) faster than your partner. - Push and glide competition, see how can glide further on their back without using arm or leg actions. <p>Note: ensure the focus is placed according to the level of the swimmers. If they are in initial stages of their learning, focus on correct alignment and extension, taking other factors such as sculling or competition out.</p>

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Common mistakes & how to coach them

- Lack of extension: work in shallow water in trios. One swimmer in back layout, one swimmer holds and stretches the neck and the other stretches from the feet, then release. Swimmer aims to maintain extension.
- Feet or knees apart: use a thin object to hold in between. E.g. ruler, paddle, sponge
- Feet sink: use flotation aids to help swimmer to gain awareness of how to place their body in the water. As swimmers succeed, substitute the aids for less buoyant ones. You can also use objects to balance on top of their ankles.
- Hips sink: Use a kickboard under hips or a partner holding under the water. Check head position as sometimes an incorrect head position (neck flexion) can be make the hips sink.
- Head hyperextended: place an object on forehead and ask swimmer to balance it. Another option is to work in pairs and ask the partner to hold the head in a neutral position.


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POSITION	BENT KNEE BACK LAYOUT (SAILBOAT)	
Description	<ul style="list-style-type: none"> - Body extended in Back Layout Position. - The thigh of the bent leg is perpendicular to the surface. 	
Check points	<ul style="list-style-type: none"> - Impression of full body extension - Front of the trunk, thigh and ankles dry - Stable - Head in neutral position - Balanced body tension - 90° angle between the thigh and surface, and as close as possible to 90° between the thigh and trunk. - At maximum height, a large air pocket will be evident between the back of the thigh and calf of the bent knee, and the surface of the water. - Ensure you work both legs equally. Swimmers will naturally have a preferred and dominant side, but as a coach you should ensure they work both legs equally. 	
Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design & alignment:</p> <ul style="list-style-type: none"> - In pairs, one swimmer lays on their back and bends one leg to assume the position, the other swimmer uses their hand or a kickboard to reinforce the angle of the thigh - In pairs, one assumes the bent knee back layout position and the other lifts that swimmer from the foot of the extended leg, swimmer must maintain the alignment. <p>WATER-BASED</p> <p>a) Position with no arm action</p> <ul style="list-style-type: none"> - Position on floating mat - Feet on wall and noodle under armpits, assume and hold a Bent Knee Back Layout Position - Same as above but holding onto milk bottles - Using a noodle under the straight leg and holding onto milk bottles assume and hold a Bent Knee Back Layout Position - In pair, one swimmer with milk bottles assumes a Bent Knee Back Layout Position, the partner provides help by holding onto the heel of the straight leg. Encourage swimmers to challenge each other once they see their partner is succeeding at the task by providing less and less support. - Assume the position holding onto milk bottles or float noodles. - Straight leg heel on the wall, assume the position and try to balance without sculling, keeping face out of the water. - Relays or races: in teams, one swimmer holding a Bent Knee Back Layout Position must be transported by two swimmers from A to B. Can be posed as a simple race or as relays. Swimmer being transported is not allowed to scull or kick. <p>b) Bent Knee Back Layout Position with arm action</p> <ul style="list-style-type: none"> - With stationary scull: <ul style="list-style-type: none"> • with noodle under the straight leg's ankle • with kickboard under the straight leg's foot, hips or shoulders • balancing an object on forehead - With head first scull or feet first scull <ul style="list-style-type: none"> • with pull buoy under the straight leg's ankle • with kickboard under foot, hips or shoulders • balancing an object on forehead • relay in Bent Knee Back Layout position <p>c) Other activities</p> <ul style="list-style-type: none"> - Transition: Back Layout Position to Bent Knee Back Layout position - Alternate legs <p>Note: ensure the focus is placed according to the level of the swimmers. If they are in initial stages of their learning, focus on correct alignment and extension, taking other factors such as sculling or competition out.</p>	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Lack of extension: work in shallow water in trios. One swimmer in back layout, one swimmer holds and stretches the neck and the other stretches from the feet, then release. Swimmer aims to maintain extension. - Straight leg's foot sinks: use flotation aids to help swimmer to gain awareness of how to place their body in the water. As swimmers succeed, substitute the aids for less buoyant ones. - Hips sink: Use a kickboard under hips or a partner holding under the water. Check head position as sometimes an incorrect head position (neck flexion) can be making the hips sink. - Head hyperextended: place an object on forehead and ask swimmer to balance it. Another option is to work in pairs and ask the partner to hold the head in a neutral position. - Thigh/trunk angle <90 degrees: in Synchro terms this is known as "on their face", which means that the thigh is passed the perpendicular line with the trunk. To correct this you can use a noodle, a partner or the coaches' hand to help the swimmer "feel" where to stop. Encourage swimmer pushes hips up and squeezes from the adductor (inner thigh) - Big toe of the bent leg on top of the knee or leg; or big toe not touching the inner thigh: use something for the swimmer to squeeze between the big toe and the inner thigh - Low height: encourage correct sculling technique, with hands placed under the hips 	

SYNCHRO SWIM NEW ZEALAND

POSITION	BALLET LEG
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Description	<ul style="list-style-type: none"> - Body in Back Layout Position. - One leg extended perpendicular to the surface 
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Check points	<ul style="list-style-type: none"> - Impression of full body extension - 90° angle between extended leg and surface. - Angle of ballet leg to trunk as close to 90° as possible. - Ear, shoulder joint, hip joint and ankle of horizontal leg as close as possible to horizontal alignment. - Head extended in a neutral position, aligned to the rest of the trunk.
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Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design and awareness</p> <ul style="list-style-type: none"> - Demonstrate, describe and/or show images/videos of a Ballet Leg Position and allow swimmers to explore the position and try it on land. - Work in pairs. One swimmer does a Ballet Leg and the other checks angles and alignment. Help each other also lift the swimmer from the horizontal leg and they have to hold the foot/keen/hip/shoulder alignment as well as a precise 90° angle between legs. <p>b) Strength & Flexibility</p> <ul style="list-style-type: none"> - Walking front kicks - Standing Ballet Leg holds - Laying down Ballet Leg holds - Ballet Leg switches + sit ups - Ballet Leg laying on a bench with hips and legs off the bench - Suspension Ballet Leg holds on bar - Hamstring and calf stretching to ensure swimmers' bodies are capable of reaching the required range of motion to successfully assume the position <p>WATER-BASED</p> <p>c) Towards a good Ballet Leg Position</p> <ul style="list-style-type: none"> - On floating mats - Bottom foot on the wall and noodle under armpits - Bottom foot on the wall and holding onto milk bottles - Bottom foot on a noodle and holding onto milk bottles - Bottom foot on the wall and kickboard behind shoulders - Partner or coach supporting bottom foot and swimmer holding onto milk bottles - Holding onto milk bottles, with a kickboard under the hips or under shoulders - In the shallow end, submerged Ballet Leg Position laying on the bottom of the pool. <p>d) Ballet Leg Position with an action</p> <ul style="list-style-type: none"> - With stationary scull: <ul style="list-style-type: none"> • with noodle under the straight leg's ankle • with kickboard under the straight leg's foot, hips or shoulders • balancing an object on forehead - With head first scull: <ul style="list-style-type: none"> • feet first scull • with noodle under the straight leg's ankle • with kickboard under foot, hips or shoulders • balancing an object on forehead - Delayed Ballet Leg Position (short distance) <p>e) Other activities</p> <ul style="list-style-type: none"> - create a sequence of movements using back layout, backstroke, sailboats, tub, ballet leg position... - In trios, one swimmer assumes a Ballet Leg Position. On swimmer gently pulls from the horizontal leg and the other from the neck, supporting the swimmer on Ballet Leg Position. On the count of 5, swimmers let the one in Ballet Leg Position go and she/he has to hold the position.
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Common mistakes & how to coach them	<ul style="list-style-type: none"> - Swimmer struggles to hold the vertical leg: firstly try to identify the primary cause; it may be due to lack of strength on the quadriceps and hip flexors, restricted range of motion (ROM) in their hamstrings and/or lack of control. <ul style="list-style-type: none"> • Lack of strength: do Ballet Legs' holds in land, stationary front kicks, walking front kicks • Lack of ROM: provide lots of opportunities for swimmers to stretch their hamstrings in and out of the water. • Lack of control: this may be associated to lack of core strength. Ensure you include some core exercises in your warm ups (land and water) - Vertical leg bent: work on the position in land and in the water without sculling. Use photos and/or videos to help the swimmer visualise the error. This may be associated to lack of hamstrings' and/or calves' flexibility. - Horizontal leg bent and/or fluttering: help the swimmer to raise their body awareness by using photos/videos or kinesthetics cues (e.g. a partner taps that knee if it is bent) - Hips sink too much: encourage the swimmer to scull deeper and to push the shoulders back. - Poor trunk extension: work in trios. One swimmer in Ballet Leg Position, one swimmer holds the horizontal leg and the other the head while pulling gently in opposite directions. - Hyperextended or Hyper Flexed head: ask the swimmer to balance an object on their forehead while performing the position.
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* Note: Remember Ballet Leg is a hard position, harder than what it looks; even advanced competitive swimmers struggle to perform a good Ballet Leg. Give beginner swimmers plenty of time to practice, keep it fun and variable. As they get stronger and they develop other skills and improve in different areas they will find it easier. Also, ensure the swimmers practice evenly the position with each leg.

POSITION	TUB	
Description	<ul style="list-style-type: none"> - Legs bent and together - Feet and knees at and parallel to the surface, thighs perpendicular. - Head in line with trunk. - Face at the surface. 	
Check points	<ul style="list-style-type: none"> - Knee and hip joints aligned vertically - Thighs perpendicular to the surface - Legs "dry" from toes to knees - Chest close to the surface, with the shoulders back. - Ear, shoulder and hip joint aligned, with the spine extended. 	
Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design and awareness</p> <ul style="list-style-type: none"> - Get the swimmers to try the position on land. You can use different methods to introduce the position: demonstrate and ask them to copy, describe it and let them interpret and perform, use pictures or images... - Balance competition: give each swimmer something to balance on their shins and ask them to do a tub position and hold it for as long as they can. You can do this from a back layout with a kickboard on the shins, aiming to keep the kickboard on top of the shins all the way from back layout to tub. - "Tub tag": when tagged, swimmers have to balance on their bottoms on a tub position. To be freed, another swimmer has to "high five" them or you can create another way to do it. <p>b) Strength</p> <ul style="list-style-type: none"> - Rocking abs - "Hug" abs <p>WATER-BASED</p> <p>c) Towards a good Tub position</p> <ul style="list-style-type: none"> - Shins on the wall and a noodle under the armpits - One noodle under the feet and one noodle under the armpits - Using a pool buoy between the ankles and a noodle or milk bottles for support - Noodle under armpits and partner holding feet - Using milk bottles, hold the position - Balance an object on shins - Hold a thin object between feet and ankles or between knees <p>* Note: when the swimmer has learnt the position, you can start working on the transition from Back Layout to Tub position. You can use all the progressions above for teaching this transition.</p> <p>d) Tub with arm action</p> <p>With stationary scull:</p> <ul style="list-style-type: none"> • with pull buoy between ankles • with kickboard under feet • with a noodle under feet and/or armpits • balancing an object on forehead or shins <p>f) With head first scull, feet first scull or turning around on the surface</p> <ul style="list-style-type: none"> • with pull buoy between ankles • with kickboard under feet, hips or shoulders • with a noodle under feet and/or armpits • balancing an object on forehead or ankles • paired with a partner feet-neck <p>• releases: in tub position, transporting something on their shins...</p> <p>f) Other activities</p> <ul style="list-style-type: none"> - create a sequence of movements using back layout, tub, back flutter, back stroke... - paired activities, both in tub position, connecting from different body parts; e.g. feet, heads, feet-neck... 	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Feet sink: use a kickboard or a short noodle under the feet to raise awareness and help the swimmer. Start reducing the help by taking the floating aids and substituting it for a partner or the coaches' hands. You can also use images to help the swimmers better understand; e.g. think you have a tray with muffins on top of your shins and you have to hold it there, you don't want the muffins to go soggy! You could even have a plastic tray at pool side... no muffins though! - Knees and/or feet apart: place a thin object between the swimmers' feet and/or knees. - Knees not vertically aligned with hips: use the wall to raise awareness and understanding. You can also work in pairs; one swimmer in tub position and the other one checking on the angle. - Chest under the surface: place a small floating toy or a plastic cup on the swimmers' chest and encourage them to keep it dry. 	

SYNCHRO SWIM NEW ZEALAND

POSITION	FRONT LAYOUT
Description	<ul style="list-style-type: none"> - Body extended with head, upper back, buttocks and heels at the surface. - Face may be in or out of the water. 
Check points	<ul style="list-style-type: none"> - Impression of full body extension - Back of the neck, shoulders, gluts, hamstrings, calves and heels dry - Lower back should be in a neutral position as close to flat as possible. - Stable - Balanced body tension - Horizontal alignment: ear, shoulder joint, hip joint and ankle. - Once established as 'in' or 'out' the head position should be maintained.
Drills, activities & games	<p>LAND-BASED</p> <p>a) Alignment activities:</p> <ul style="list-style-type: none"> - Walking on tippy-toes with arms extended by ears - "Ice-block tag": when tagged, swimmers lay on their backs, fully extended, staying strong and still like an "ice-block". To free others try different things: ask the swimmers for ideas, or a swimmer can roll over the "ice-block" to free them, or roll them over...be creative <p>b) Strengthen and alignment</p> <p>Plank holds: on hands and on forearms</p> <p>WATER-BASED</p> <p>c) Exploring floating on their front</p> <ul style="list-style-type: none"> - Using a noodle under armpits. Explore different arm & leg positions - Using milk bottles, same as above - Feet on the wall. Explore different arm positions so swimmers can feel how this affects their balance in the water and what muscles they need to contract, relax and stretch to float naturally - Body shapes: floating on their fronts, explore different body shapes; e.g. different letters of the alphabet, animals... be creative! - In pairs, joined "Star Fish" <p>*Note: it is important to spend time allowing the swimmers to understand how their body behaves in the water. It is always good to use the exercises above no matter the level of the swimmers and they will help to develop and strengthen their body awareness in the water</p> <p>d) Towards a good Front Layout position</p> <ul style="list-style-type: none"> - Feet on wall and holding onto milk bottles. Focus on key check points for the position. - With milk bottles, assume a front layout and hold the position. Try with head in and out of the water. To progress this exercise, do it in pairs, with one swimmer is laying on their front, the partner puts a floating toy or a plastic cup on the swimmer's feet to focus on the feet position. - Short noodles, one on each side - With pull buoy or board between their feet. - Push off the wall and glide on their front and try to keep feet on top of the surface without sculling - Feet on wall, alternate legs position, aiming to keep back of the legs, hips, shoulders and head dry. Notice this is an advance option <p>e) Front Layout Position with arm action</p> <ul style="list-style-type: none"> - With stationary scull: • with pull buoy between ankles • with kickboard under feet or hips • balancing an object on top of the heels, gluts or middle back <ul style="list-style-type: none"> - With head paddle, barrel and/or alligator scull • with pull buoy between ankles • with kickboard under feet or hips • balancing an object on top of the heels, gluts or middle back • relay on Front Layout position <p>f) Other activities</p> <ul style="list-style-type: none"> - Push and glide on the front competition. You can use hops as a motivator. <p>Note: ensure the focus is placed according to the level of the swimmers. If they are in initial stages of their learning, focus on correct alignment and extension, taking other factors such as sculling or competition out.</p>

SYNCHRO SWIM NEW ZEALAND

Common mistakes & how to coach them

- Lack of extension: keep working on position awareness in land.
- Heels under the water: Use an aid to raise the awareness. As the swimmer improves, start moving the aid or using less buoyant ones. The aid can also be a partner or the coach holding the ankles
- Feet apart and/or fluttering: ask the swimmer to place a thin object (ruler, paddle, plastic plate) in between their feet and hold it while performing the position.
- Hips sink: use a noodle or a kickboard under the swimmer's hips to raise awareness and aid the correct hips' position. Usually this hips sink due to a hyperextension of the lumbar spine. Check on the back and if this is causing the error, help the swimmer to correct that first.
- Hyperextension of lumbar spine: work the position in land, like a prone hold. Ask swimmer to tuck their belly button in. Tell them to think someone is holding and pulling them up with a string from their waist. You can use a broomstick to work on the back alignment while the swimmer performs a prone hold.
- Neck hyper flexed (when performing the position with the head in the water): ask the swimmer to look at the pool's corner not to the bottom. The neck should be flat. You can use an object to balance on the back of the neck to emphasis its correct position.

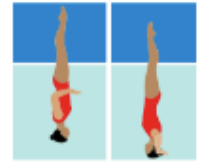
SYNCHRO SWIM NEW ZEALAND

POSITION

VERTICAL

Description

- Body extended, perpendicular to the surface
- Legs together
- Head downwards
- Head, hips and ankles in line



Check points

- Accurate vertical line
- Full extension of the body
- Imaginary vertical line, perpendicular to the surface should go the middle of the swimmer
- Feet and knees together
- Stable and balanced

Drills, activities & games

LAND-BASED

a) Position design and awareness

- You can use all the activities described above for Back and Front Layout as the principles of alignment are the same
- Headstands: they are a great way of working strength and alignment for Vertical Position. When doing headstands with your swimmers ensure safety first. They can be performed in two different ways: hands & head base or head & forearms base. Teach both and allow swimmers to choose the one that suits them best. Also teach them one to help each other safely, always from them side.

b) Strength

- As for Back Layout Position.

WATER-BASED

c) Exploring inverted positions in the water

Before teaching any proper inverted position such as Vertical, Bent Knee Vertical, Split... it is important that the swimmers are comfortable and familiar with being inverted (upside-down) in the water. It is important that you ensure they have a nose clip when practicing inverted positions as getting water through their nose can be a very negative experience for those beginner swimmers. Some ideas follow:

- Duck dive through hoops
- Handstands in shallow water
- Somersaults (front/back)

d) Towards a good Vertical Position

- Holding onto the wall with their back facing the wall, assume a vertical position. Coach or partner helps the swimmer to get to the position. The swimmer try to pull feet apart, tap the kneecaps or the back of the knees to encourage more extension.
- Same but with no help
- Without using any particular scull, ask the swimmers to assume a vertical position at low height. If working in pairs, one can assist to find the alignment.
- At low height, assume a vertical position and without using any sculling try to stretch to reach more height. Arms position may vary from swimmer to swimmer.
- Same as above but with a pull buoy in they head.
- Holding onto milk bottles, assume a vertical position.


e) Vertical Position with arm action

- With overhead scull (propeller)
 - Starting at ankle height, scull overhead aiming to keep feet on the bottom of the pool.
 - Starting at ankle height, try to reach height by sculling overhead with a propeller action
 - Stay a height and try to maintain the height by using overhead scull
 - Up and down verticals with overhead scull – starting at ankle height, scull overhead to achieve maximum height and then drop back to ankle height. Repeat.
- With support scull
 - Same drills as above but with support scull

Common mistakes & how to coach them

- Poor alignment: keep working on land to ensure the swimmers understand what body parts need to be aligned and what muscles need to contract to maintain the alignment.
- Head off the vertical line: practice the Vertical Position on the wall, with the back facing the wall. Encourage swimmers to have the head on the wall. You can ask a partner to check under the water. Another helpful drill is to practice the Vertical Position on a pull buoy (head on the pull buoy)
- Hips flexed ("pike"): practice the Vertical position holding onto the wall, both ways facing the wall and with the back on the wall. Emphasis on hip bones pushing forward and squeezing butt cheeks.
- Low back hyperextended ("arched"): practice the Vertical Position holding onto the wall, with the back facing the wall. Ask the swimmer to tuck their tummies and lock from their ribs so their low back is as flat as possible. You can ask another swimmer to go under the water and check with their hand if there is water between the back and the wall.
- Swimmer loses the verticality and leans forward ("on their face") or back ("on their back"): work on alignment and balance in the water. Spend time just floating and readjusting on vertical position at low height.
- Feet come apart: place a thin object between the swimmer's feet
- Knees bent: Practice the position on the wall, with the back facing the wall. Encourage swimmers to contract their quadriceps to stretch their knees further (explain what they are and how it feels like as most of them won't have any idea what a quadriceps is ☹️) You can also practice the position on the wall in pairs, one swimmer in the water doing the vertical holding onto the wall, with feet flex. The other swimmer presses down from the other swimmer's feet to emphasis the stretch on their calves.
- Shaky: this may be a result of lack of balance between muscle tension and extension. Sometimes swimmers contract their muscles too much and forget to stretch and "reach out and tug" causes an undesired muscle tension that result in shakes.
- Bouncy: poor sculling technique cause most times this. Observe the swimmer's sculling technique under the water. Uneven sculling (direction, angles, strength) has unstable height as a result, therefore the position looks bouncy.


SYNCHRO SWIM NEW ZEALAND

POSITION	FRONT PIKE	
Description	<ul style="list-style-type: none"> - Body bent at hips to form a 90° angle. - Legs extended and together on the surface. - Trunk extended with back straight and head in line. 	
Check points	<ul style="list-style-type: none"> - Accurate 90° angle at hips - Full extension of legs, with ankle aligned with hip joint. - Dry heels and hamstrings - Back flat, with vertical alignment of ear, shoulder joint, middle of side of trunk, and hip joint. - Arms position can vary depending on the movements executed in or from this position. 	
Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design and awareness</p> <ul style="list-style-type: none"> - Ask swimmers to create a capital letter L with their bodies. Observe the different interpretations, use questioning to get the swimmers to describe the body position. - Sitting up straight with back on the wall and leg extended together on the floor. Same but other way round, back on the floor and legs on the wall. - In pairs, both standing up facing each other and holding hands. One swimmer bends from the hips assuming to a front pike position, the other swimmer assists by holding hands and checking on the angle. - Frozen pikes: moving freely with music, when the music stops, the swimmers have to assume a pike and hold it. Encourage creativity and different ways of holding a 90° pike (on their feet, sitting, on their sides, on their backs...) - Facing a wall, start on hands and feet and go walking along the wall till feet reach the hips' line. Assist to make sure the trunk is straight and the feet & hips aligned. - Perform a handstand on the wall. The coach places beside the swimmer and helps the swimmer to bend from their hips till their reach a pike position. <p>Note: the 2 last exercises are for intermediate/advanced beginners and they require upper body and core strength and control.</p> <p>b) Strength</p> <ul style="list-style-type: none"> - V holds - On bars, upside-down Pike holding onto the bar - On bars, hanging, bend legs to Pike position and hold <p>WATER-BASED</p> <p>c) Towards a good Front Pike position</p> <ul style="list-style-type: none"> - Ask swimmers to get out of the water and lay on their front with their legs on the wall and their trunks and arms in the water and bend by the hips assuming a Front Pike position. - Holding onto wall, with back to the wall and legs extended on the surface. - Feet on the wall and noodle under the hips, bend trunk down to a 90° angle to assume a Front Pike. - With a pull buoy between the feet and holding onto milk bottles assume a Front Pike Position. - With a partner or the coach holding onto the feet, assume a Front Pike Position. <p>d) Other activities</p> <ul style="list-style-type: none"> - create a sequence of movements using front layout, kick-pull, head up breaststroke, pike position... - If you have access to shallow water, you can try some of the land-based activities in the water. 	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Feet sink: place a noodle under the swimmer's ankles, use a pull buoy between feet or provide feet support (coach or partner) - Feet come apart and/or fluttering: place a thin object between the swimmers' feet while performing a Front Pike position. - Hamstrings and gluts under the water: encourage the swimmer to "pop" their bottoms out. You can use a kick board under the thighs or right under the hips. - "Over-pike": In Synchro, we refer to this term when a swimmer is performing a Front Pike Position and the angle between the trunk and the legs is less than 90°. To correct this the swimmers can work in pairs. While one swimmer is in pike position, the other swimmer checks and corrects, if needed, the trunk's angle. - Poor trunk extension and alignment: work on the position in land. Emphasis on back muscles tension and extension while holding the position. 	

SYNCHRO SWIM NEW ZEALAND

POSITION	VERTICAL BENT KNEE	
Description	<ul style="list-style-type: none"> - Body extended Vertical Position - Toe of the bent leg at the knee or thigh perpendicular to the surface - Head, hips and ankles in line 	
Check points	<ul style="list-style-type: none"> - Accurate vertical line - Fully extension of the body - Imaginary vertical line, perpendicular to the surface should go through the middle of the swimmer - Big toe of the bent knee should be in contact with the inside of the vertical leg, somewhere between the knee and the thigh, never above the knee or not top of the front of the leg. - Stable and balanced 	
Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design and awareness</p> <ul style="list-style-type: none"> - Vertical Position exercises and activities - Bent Knee Back Layout exercises and activities. <p>b) Strength</p> <ul style="list-style-type: none"> - As for Vertical Position <p>WATER-BASED</p> <p>c) Exploring inverted positions in the water</p> <p>As mentioned above in the Vertical Position, when teaching inverted positions like Bent Knee Vertical Position, ensure the swimmers have been exposed before to being up-side-down and that they are comfortable doing so.</p> <p>d) Towards a good Bent Knee Vertical Position</p> <ul style="list-style-type: none"> - You can use the same exercises and activities described for Vertical Position and adapt them to Bent Knee Vertical. <p>e) Bent Knee Vertical Position with arm action</p> <ul style="list-style-type: none"> • Same as for Vertical Position. <p>f) Other activities</p> <ul style="list-style-type: none"> - alternated Bent Knee Vertical on the wall holding onto milk bottles - Vertical to Bent Knee Vertical Position on the wall or with bottles. Reverse it. 	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Poor alignment: keep working on the wall to ensure the swimmers understand what body parts need to be aligned and what muscles need to be contracted to maintain the alignment. - Head off the vertical line: practice the Bent Knee Vertical Position on the wall, with the back facing the wall. Encourage swimmers to have their head on the wall. You can ask a partner to check under the water. Another helpful drill is to practice the Bent Knee Vertical Position on a pull buoy (head on the pull buoy) - Hips flexed ("pike"): practice the Bent Knee Vertical Position holding onto the wall. Emphasis on squeezing butt cheeks. - Low back hyper-extended ("arched"): practice the Bent Knee Vertical Position holding onto the wall, with the back facing the wall. Ask the swimmer to tuck their tummies and lock from their ribs so their low back is as flat as possible. You can ask another swimmer to go under the water and check with their hand if there is water between the back and the wall. - Swimmers lose the verticality and leans forward ("on their face") or back ("on their back"): work on alignment and balance in the water. Spend time just floating and readjusting on vertical position at low height. - Feet come apart: place a thin object between the swimmer's feet - Straight leg's knee bent: Practice the position on the wall, with the back facing the wall. Encourage swimmers to contract their quadriceps to stretch their knees further (explain what they are and how it feels like as most of them won't have idea of what a quadriceps is 😊) You can also practice the position on the wall on pairs, one swimmer in the water doing the vertical holding onto the wall, with top foot flex. The other swimmer presses down from the other swimmer's foot to emphasize the stretch on their calves. - Toe above the knee: practice the position in the wall and manipulate the swimmer's foot to place it in the correct position. You can also establish some kind of code to communicate the swimmer they need to pull the bottom foot down lower. (e.g. if coach taps on the wall means the foot needs to go down, use a microphone...) - Toe on top the front of the leg not beside: place something between the swimmer's big toe and the inner thigh and encourage them to hold it while in Bent Knee Vertical Position on the wall. - Shaky: this may be a result of lack of balance between muscle tension and extension. Sometimes swimmers contract their muscles too much and forget to stretch and "reach out" and this causes an undesired muscle tension that result in shakes. - Bouncy: poor sculling technique cause most times this. Observe the swimmer's sculling technique under the water. Uneven sculling (direction, angles, strength) has unstable height as a result, therefore the position looks bouncy. 	

Note: Ensure the swimmers practice this single leg position evenly with both legs

POSITION	SPLIT	
Description	<ul style="list-style-type: none"> - Legs evenly split forward and back. - Legs are parallel to the surface. - Lower back slightly arched, with hips, shoulders and head on a vertical line. - 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips. 	
Check points	<ul style="list-style-type: none"> - Full extension of the legs regardless of the height - Front leg's knee facing the bottom of the pool - Back leg's knee facing the roof/sky - Even angle - Hips as close to the surface as possible - Hip bones on a horizontal line ("square") - Shoulders on a horizontal line ("square") - Hips' and shoulders' lines parallel to each other 	
Drills, activities & games	<p>LAND-BASED</p> <p>a) Position design and awareness</p> <ul style="list-style-type: none"> - Splits stretching and holds. - Split in headstand position (assisted) <p>b) Strength & Flexibility</p> <ul style="list-style-type: none"> - To perform a good Split Position great ROM in various joints and flexibility in various muscular groups is required. The main joints and muscles involved are: hip joint, hip flexors (flexibility on the back leg and strength on the front), hamstrings (flexibility front leg), gluts (strength on the back leg), calves (flexibility on both, front and back leg) - There are different methods to develop and train flexibility. For new beginners we recommend Passive Stretching & Dynamic Stretching. The dynamic stretching exercises will also help to develop strength in the muscles involved in the movement. <p>Note: Remember you are coaching young swimmers, whose bodies are still developing and maturing. Keep flexibility and strength training basic and simple, no extreme moves or heavy loads as they can have an impact on their joints' and muscles' health and growth.</p> <p>WATER-BASED</p> <p>c) Exploring inverted positions in the water</p> <p>As mentioned above, when teaching inverted positions like Split Position, ensure the swimmers have been exposed before to being upside-down and that they are comfortable doing so.</p> <p>d) Towards a good Split Position</p> <ul style="list-style-type: none"> - Starting in a Vertical Position on a low height, split legs one front – one back to assume the Split Position. Don't worry about the angle of the legs. - Holding onto milk bottles, assume and inverted tuck and from there move into a Split Position. - In pairs, one swimmer assumes a Split Position, with the front leg on the wall. The partner checks for: square hips, extended knees and knees facing the right way. - Using an elastic cord, make one loop at each end and ask the swimmer to put their feet in the loop and hook the cord under their shoulder. Ask swimmers to assume a Split Position pulling the legs down and feeling the resistance of the cords. This can also be done holding onto milk bottles. <p>e) Split Vertical Position with arm action</p> <p>Same as for Vertical Position.</p> <p>f) Other activities</p> <ul style="list-style-type: none"> - Split switches & holds holding onto milk bottles - Vertical to Split Position holding onto milk bottles. Reverse it. 	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Uneven: use video/photos so the swimmers can visualise the mistake and by questioning, ask them what they need to do to fix it. Encourage problem solving rather than telling them what to do. - Back leg rotated out: swimmers tend to do this to appear to be "flatter" but this is consider a design error as per description, the hip bones should be in line and the back knee should be facing the roof/sky. Again, you can use video to show the swimmer. You or another swimmer can manipulate the swimmer's hips in the water while doing the Split Position to help them "feel" the right position. Encourage swimmers to be in the correct position rather to be flat. This principle also applies in land. - Front and/or back knee bent: keep working on hamstring and calf flexibility. - Shoulder line not parallel to hip line ("pike"): this is a common mistake caused by lack of trunk's vertical alignment. Ask the swimmer to perform the split position with the front foot on the wall and ask them to look at the wall (not the front leg) all times. You can also do the Split Position balancing on a pool buoy to encourage the vertical alignment. 	

Note: Ensure the swimmers practice this single leg position evenly with both legs

PROPULSION TECHNIQUES

Description, key teaching points & progressions

Arm and leg propulsion techniques are used in Synchronised Swimming to sustain and move the body through the water. These techniques are used in basic positions, figures and routines.

It is important that, from early stages, swimmers learn and practice these techniques as they are crucial to performing more complex skills.

We recommend you practice these skills in a variety of ways, ensuring they are engaging and fun. You can include them in your warm ups, play games, create short routines with music...



In this section we will describe the following propulsion techniques, as well as providing some key check points and activities to develop and master them:

a) Legs:

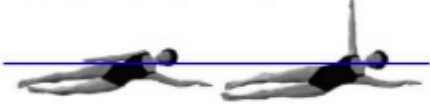
- Back flutter kick
- Side flutter kick
- Stationary eggbeater
- Traveling eggbeater
- Kick-pull
- Body Boost

b) Arms:

- Standard Scull
- Head First & Feet first Scull in Back Layout Position
- Propeller Scull
- Barrel Scull
- Support Scull

TECHNIQUE	BACK FLUTTER KICK	
Description	<ul style="list-style-type: none"> - This technique is performed when the swimmer is laying on their back, wanting to move towards their head. - The leg action is the same as for backstroke. - This leg action is accompanied usually by arm actions. 	
Check points	<ul style="list-style-type: none"> - Smooth, consistent and strong movement across the surface. - Appearance of gliding across the surface - Neck should be long and extended with the side of the head flat at the surface - Whole face should be above the surface. - No splash and minimal turbulence from the legs. - Legs appear almost straight; very little bending of the knees. 	
Drills, activities & games	<ul style="list-style-type: none"> - Laps of back flutter kick with a floatation aid (kickboard, noodle...) - Laps of back flutter kick in streamline position - Laps of back flutter kick with flippers - Create a 4 or 8 count sequence of arm positions staying on the back with both arms up - Creative stroke laps - Each swimmer creates their stroke sequences. If possible, play music during these laps. - To increase the strength the kick may be practiced in vertical position 	
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Knees bend in excess during kick: with a kickboard, ask swimmer to hold it with arms straight over the knees while kicking, ensuring the knees don't hit the board. - Feet flexed: use flippers to encourage the swimmer to correct the technique - Legs too deep: use a ball or a balloon. Place it on the surface, underneath the swimmer's toes and ask them to kick the ball with their tippy toes. - Legs too apart when kicking: use a pull buoy between the thighs 	

SYNCHRO SWIM NEW ZEALAND

TECHNIQUE	BACK FLUTTER KICK
<p>Description</p>	<ul style="list-style-type: none"> - Side Flutter kick is a very efficient mean of propulsion for covering large distances in a short period of time during a routine. One or both arms can be moved through a series of arm strokes or positions creating an interesting segment of a routine. Although a swimmer should not remain in flutter kick for extended periods of time, brief segments of strokes in flutter kick provide variety from eggbeater strokes. - The leg action is the same as for the Back Flutter with the difference that the swimmer lays on their side not on their back. - The bottom arm helps to support the body weight by sculling. 
<p>Check points</p>	<ul style="list-style-type: none"> - Extension through the top of the head and the feet. - Trunk as high as possible - Extension through both arms. - Pressing the thigh back on each kick. Using the whole leg to kick. - Kicking with nearly straight legs. - Smooth surface - no splash or turbulence. - The upper side is up along the surface down to the waist. - Good posture with the head and neck - neck long and chin lifted slightly. - Look out toward the side of the pool where audience or judges would be placed.
<p>Drills, activities & games</p>	<ul style="list-style-type: none"> - Side flutter holding onto two kickboards, one on the top arm and the other on the overhead arm - Side flutter holding onto short noodles. Same as above - Wearing flippers, side flutter with the overhead arm holding onto a kickboard. - Same as above but top arm pointing the ceiling in a 90 degree angle with the trunk. - Same as above but sculling with the overhead arm. - Same as above but no flippers. - Side flutter kick with bottom/overhead arm sculling along the top of the head. The top arm moves sharply from flat along the surface to 90 degrees every 4 or 5 kicks. - Side flutter kick while the top arm performs creative moves. - Roll from side to side – Start in flutter kick on one side. After a set number of kicks or counts, backstroke with the top arm to roll to the other side. Continue performing this sequence for an established distance or time.
<p>Common mistakes & how to coach them</p>	<ul style="list-style-type: none"> -Lack of alignment: ask swimmers to hold onto the wall and kick on their side while stretching their legs and trunks as much as possible - Head sinks: encourage their scull with the bottom arm - Feet flexed: use flippers to protect the technique

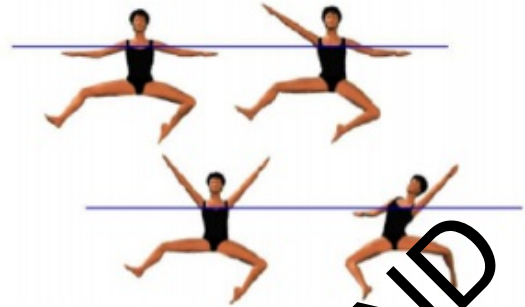
SYNCHRO SWIM NEW ZEALAND

TECHNIQUE

STATIONARY EGGBEATER

Description

- Create a broad base of support.
- Knees are as wide as possible – pull the thighs out wide. You may feel the muscle on the outside of the buttocks pulling the thighs outward.
- Knees high – Pull the knees up towards the surface. The knees should be pulled higher than the hips if flexibility allows.
- Lower leg and foot rotate from the knee.
- Foot – rotates in a circle – flexed through the front portion of the circle and pointed through the back part of the circle.
- Feel as if the feet and toes grab the water. You feel the grab when the foot rotates from flex to point.
- The thighs rotate forward and back in order to allow the lower leg to circle.
- The thighs may move slightly up and down or forward and back, but this should not be seen in bouncing of the torso.



Check points

- Constant height
- Shoulders aligned horizontally
- Long neck with the shoulders away from ears.
- Shoulders' line parallel to the hips.
- Steady fluid movement. No bouncing up and down.
- Knees wide and high.
- Constant water level when one or both arms are lifted.
- Extension is from centre up through the top of the head.

Drills, activities & games

Sitting on the wall

a. Sit on the edge of the pool with the feet and lower leg in the water. Make sure the butt is out and the knees are as wide as possible. (Get the knees as close to the side of the pool as possible without hitting the wall.)

Circle one leg at a time. Circle for 15 seconds. Switch legs. Repeat several times until they can circle continuously.

Feel the foot grab the water. They should feel a grab on the water as the circles from flex to point. The foot and ankle rotate so the sole of the foot has grab on the water.

b. Circle both feet. Make sure the feet and legs alternate

Holding onto the Wall

a. Facing sideways, hold onto the wall with one arm and eggbeater with the opposite leg

Change legs.

b. Holding onto the wall with the back on the wall, eggbeater slowly alternating legs/

c. Facing the wall, hold onto the edge with both hands and eggbeater.

Holding onto flotation aids

a. Hold noodle or pull buoy in each hand for support. Hold them directly out to the sides of the shoulders to set the balance point. Holding them forward of the shoulders will cause the balance to shift forward.

b. Sitting on a noodle (like a seahorse)

c. Sitting on noodle, play pass-catch a light ball.

d. Sitting on a noodle, eggbeater in a circle and ask each swimmer to create one arm movement. Go adding on as you go around the circle.

Freely

a. "Rolling" laps – eggbeater laying on the stomach. Pull the legs wide and knees up toward the shoulders. Hands are optional and you could use a noodle or kickboard for support

b. Stationary Eggbeater hold – Hold at maximum height with one or two arms out.

c. Play catch with a ball or a Frisbee in two lines or around a circle.

d. Pass an object, i.e. ball, brick, etc. around a pattern or down a line.

e. Play water polo. The swimmers have fun while incorporating some eggbeater work.

Common mistakes & how to coach them

- Legs rotate in an incorrect direction: spend time on land and sitting on the edge to ensure the swimmers understand the legs's coordination pattern.
- Legs move up and down rather than rotating: same as above
- Knees come too close together while kicking: practice in pairs, while one swimmer does eggbeater, the other swimmer pushes the knees away
- Knees too deep: ask swimmers to place their hands flat on the surface and think their knees want to "high 5" the hand
- Poor body posture: use a noodle or a kickboard and ask the swimmers to hold it on the surface, parallel to their truck

TECHNIQUE

TRAVELLING EGGBEATER

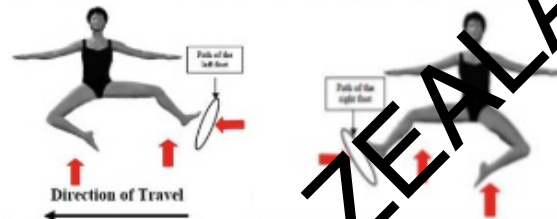
Description

TRAVELLING LEFT - the right thigh rises closer to the surface of the water and the right foot circles more to the right side of the body than underneath the body as in stationary eggbeater. The left thigh will drop below the horizontal with the foot circling more underneath the centre of the torso than out to the side of the torso. The left leg provides more of the vertical support to maintain height while the right leg provides force for moving to the left. Although the left thigh drops below horizontal, it should not drop too low which would cause not only loss of height but also imbalance in the swimmer. The swimmer may have a bend in the waist in the right side to get the right thigh as high as possible while the left side is lengthened.

TRAVELLING RIGHT, the legs shift opposite to that done when traveling to the left. The left leg rises closer to the surface and the left foot circles at an angle to provide horizontal and vertical force. The right thigh drops below horizontal with the foot circling more underneath the centre of the torso.

Arm position is optional but should help create the optimal position of the shoulders and torso:

- start with the arms extended straight out to the side.
- Make sure the shoulders are rolled down and back.
- Pull the elbows down toward the waist to create the sculling position.
- Elbows should stay straight out from the shoulder. -Hands scull slightly forward and back of the midline of the torso.
- Pressure on the hands should be very light – the hands are not supporting the torso, no scull with the hands in front of the body.



Check points

- Constant height
- Shoulders horizontally aligned and parallel to the surface
- Long neck with the shoulders away from ears.
- Shoulders' line parallel to the surface
- Steady fluid movement. No bouncing up and down
- Constant water level when one or both arms are in the water
- Extension is from center up through the head to the head.

Drills, activities & games

You can adapt all the drills, activities and games described for Stationary Eggbeater by adding travelling. Start with short distances and straight trajectories and progressively increase the distance and request the swimmers to travel in more complex directions

Common mistakes & how to coach them

- Same as for stationary eggbeater
- Swimmer struggles to travel: ensure the legs are facing the correct angle and that the feet are flexed
- Swimmer leans the trunk towards the side they are travelling: encourage shoulders are on top of hips. You can also give the swimmer something to hold in front of them or place an object on their heads and ask them to balance it as they travel.

SYNCHRO SWIM NEW ZEALAND

TECHNIQUE	KICK PULL
Description	Is a method of propulsion in routines. It is performed with head up, facing forward, shoulders square and dry. Aim for body at 45° or less, buttocks low, back arched, abdomen pulled up into ribcage. One arm extends forward as the other arm pushes back and outward as the legs execute breaststroke kick (whip kick). Both arms pull under the chest as the legs recover. Kick pull may continue using the same lead arm or alternate arms.
Check points	<ul style="list-style-type: none"> - Maximum extension - Power in propulsion - Chest and head high - Clear distinction between the kick and the pull.
Drills, activities & games	<ul style="list-style-type: none"> - Head up breaststroke kick with a pull noodle under the arms - Head up breaststroke - Kick pull with a noodle under the arms, right arm leading. Repeat and lead with the left arm. - Kick pull with a noodle under the arms and alternating arms. - Kick pull lap leading with right arm. Repeat leading with left - Kick pull lap alternating arms - Kick pull lap with arms' combinations; e.g. R, R, L, L, R, L, R, L / R, over, L, over / R, R, over, L, L, over...
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Trunk leans forward in excess: practice the kick with a board, emphasising on the trunk position and posture - Swimmer loses height: ensure the kick and the pull are even and that the swimmer doesn't do a long glide. The kick recovery should be quick.

SYNCHRO SWIM NEW ZEALAND



TECHNIQUE

BODY BOOST

Description

A body boost is a move in which the swimmer uses a powerful vertical whip kick to propel herself straight up out of the water. We can divide this technique in 3 steps

Step 1 - Set Up

- Swimmer preps under the water, with the trunk bend forward, eggbeatering with the legs. The back remains straight, almost parallel to the surface.

- Hands prep beside the head, in front of the shoulders, sculling gently.

Step 2 - Rev Up

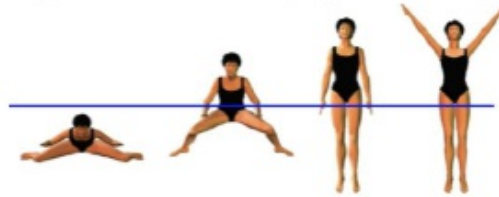
- Start to eggbeater and scull faster in order to rise and get closer to the surface.

- Swimmer gets into a very compact position, bringing the knees up towards your armpits and your hips closer to the surface.

- Swimmer reaches their maximum speed and maximum compactness.

Step 3 - Jump

The swimmer does one big whip kick as they press their hands (and the water) down toward their hips. Head breaks the surface first and the swimmer pushes their body up out of the water as high as they can while maintain a good body posture: shoulders down, long neck and chin up.



Check points

- Maximum extension
- Power in legs
- One sharp movement
- Straight back and neck

Drills, activities & games

- In land, frog jumps
- On the wall, place the hands on the edge, bend the trunk forward, rev up and push boosting head first
- Same as above but with a vertical breaststroke kick
- Vertical breaststroke kicks sitting on a noodle
- In pairs, one swimmer out of the water and another swimmer in the water. The swimmer in the water performs a body boost aiming to "high 5" with their partner with their partner's hand.
- Body boost sets with counts
- Body boost laps
- Single arm body boost
- Double arm body boost

Common mistakes & how to coach them

- Swimmer preps too deep: encourage the head is just below the surface
- Lack of height: ensure the swimmer revs up and kicks powerfully. At this stage is normal that swimmers struggle to achieve much height as their legs muscles are not strong and powerful enough. Don't stress about height, focus on correct technique and execution, height will come :)

SYNCHRO SWIM NEW ZEALAND

TECHNIQUE

STANDARD SCULL ON BACK

Description

- Body extended in Back Layout Position
- Arms straight and by the sides of the body with elbows slightly bent.
- As your hands move away from your body the leading edges (little fingers) of your hands are raised so that your palms are facing outwards and downwards.
- On the inward movement the leading edges (thumbs) are again raised so that the palms are facing inwards and downwards at the extremity of each inward and outward sweep, the hands rotate to change the angle of the palms.
- The movement initiated at the elbows passing through the wrists and hands.
- Throughout the scull the wrists remain in the line with the forearms and the arms should remain close to the body.
- The downwards pressure of the palms has an upwards reaction which counteracts the tendency of the body to sink, providing the necessary support to allow it to remain stationary at the surface.

Check points

- Both hands at the same depth in the water.
- Outwards / inwards movement, not up & down
- Elbows slightly bent
- Shoulders away from ears
- Wrist aligned with forearm
- Fingers together
- Constant speed of action in both the outward and inward scull cycle.
- Constant pressure on outward and inward movement.
- Upper arms and elbows relatively stationary.
- Regular rhythm.

Drills, activities & games

LAND-BASED

1. Using a flat surface
 - Place the palms down against the flat surface.
 - Slide the hands in toward each other so that your thumbs get closer together. As you slide them in, tilt the thumb side of your hands up a little so that part of your hand comes slightly up off the surface.
 - Now slide your hands away from each other, tilting them so that the pinky finger sides tip up.
2. Lying on their back
 - Lie down on the floor as if they were doing a back layout position.
 - With their hands by their sides, bend the elbows until hands are next to their hips.
 - Move the hands in and out, simulating the same handed scull technique that you tried on the flat surface.

WATER-BASED

- a) Teaching standard scull
 - In shallow water, standing up, perform the sculling movement so the swimmers can see the arm/hand action as they do it.
 - In shallow water, standing up by the wall, scull by the hips with hands touching the wall.
 - Lying on their backs, with feet on the wall.
 - In Back Layout Position with a noodle under the armpits and another under their feet for support.
 - In Back Layout Position with a scull buoy between their feet.
 - Use different floating positions on their backs; e.g.: Starfish, tub, sailboat
- b) Games
 - In shallow water play tag. If swimmers are tagged they have to stay floating on their backs using stationary scull until a teammate taps their feet.
 - Status, swim or move around with the music and when the music stops, float on their backs using stationary scull.

Common mistakes & how to coach them

- Swimmers push the water up and down rather than outwards/inwards: keep working on land and through simple progressions. You can use the cue "thumbs up, thumbs down" or imagine that you are piling sand "push sand in towards the centre to make a little mound and then push it back out to the sides".
- Bouncy: ensure the swimmers apply the same pressure outwards and inwards.
- Hips sink: encourage the swimmers to scull a bit deeper, just below the hips
- Swimmer drives the movement from the shoulders pulling the arms away from the trunk: you can use plastic bottles or tennis balls under their armpits and ask them to scull while holding them.

TECHNIQUE	STANDARD SCULL ON FRONT
Description	<ul style="list-style-type: none"> - Body extended in Front Layout position with hands by the trunk (level may vary according to the swim buoyancy) facing the bottom of the pool - Elbows tucked in, by the trunk - Same motion as the stationary scull on the back - Hands move away from the centre with the pinky finger leading and the thumb turning slightly outwards - In the inwards phase, the hands return to the centre, leading from the thumb and with the hands turning slightly inwards
Check points	<ul style="list-style-type: none"> - Both hands at the same depth in the water. - Outwards / inwards movement, not up & down - Elbows bent and close to the trunk - Wrist aligned with forearm - Fingers together - Constant speed of action in both the outward and inward scull cycle. - Constant pressure on outward and inward movement. - Upper arms and elbows relatively stationary. - Regular rhythm.
Drills, activities & games	<p>LAND-BASED</p> <ol style="list-style-type: none"> Using a flat surface <ul style="list-style-type: none"> - Stand up facing a wall - Place arms and hands as described above, with the hands on the wall - Slide the hands away from the centre, leading with the pinky and tilting it up a little. As the hands slide in towards the centre, tilt the thumb up a little. Lying on their front <ul style="list-style-type: none"> - Lie down on the floor as if they were doing a front layout position - With their arms bent by their sides with the hands at shoulder level. - Move the hands in and out, simulating the same standard scull technique that you tried on the flat surface. <p>WATER-BASED</p> <ol style="list-style-type: none"> Teaching standard scull <ul style="list-style-type: none"> - Lying on their fronts, with feet on the wall. - In Front Layout Position with a noodle under the armpits and another under their feet for support. - In Front Layout Position with a pull buoy between their feet. - Use different floating positions on their backs e.g. starfish, Front Layout Bent Knee position Games <ul style="list-style-type: none"> - In shallow water; play tag. If swimmers are tagged they have to stay floating on their fronts (keeping the head up) using stationary scull until a teammate taps their feet. - Statues, swim or move around with the music and when the music stops, float on their fronts using stationary scull.
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Feet sink: get the swimmer to explore the hands position. Some swimmers find it easier with their hands closer to the shoulders and others need to have them closer to the hips to achieve better balance. - Hips sink: you can place a kickboard under the hips to help with the position - Bouncy: this is usually caused by uneven scull, ensure pressure and speed are even going out and coming in

SYNCHRO SWIM NEW ZEALAND



TECHNIQUE	HEAD FIRST SCULL ON BACK
Description	<ul style="list-style-type: none"> - Same as the standard scull on back - Wrists in dorso-flex (finger tips pointing up)
Check points	<ul style="list-style-type: none"> - Both hands at the same depth in the water. - Outwards / inwards movement, not up & down - Elbows bent and close to the trunk - Wrist bent with finger tips pointing up - Fingers together - Constant speed of action in both the outward and inward scull cycle. - Constant pressure on outward and inward movement. - Upper arms and elbows relatively stationary. - Regular rhythm.
Drills, activities & games	<p>LAND-BASED</p> <ol style="list-style-type: none"> Lying on their back <ul style="list-style-type: none"> - Lie down on the floor as if they were doing a back layout position. - With their hands by their sides, bend the elbows until hands are next to their hips with finger tips pointing up. - Move the hands in and out, simulating the same head first scull technique that you teach on the flat surface. <p>WATER-BASED</p> <ol style="list-style-type: none"> Teaching head first scull <ul style="list-style-type: none"> - In shallow water, standing up, perform the sculling movement so the swimmers can see the arms/hands action as they do it. - In shallow water, standing up on the bottom of the pool, pretending they are floating to the bottom - In Back Layout Position with a noodle under the armpits and another under their feet for support, travel a short distance - In Back Layout Position with a pull buoy between their feet, travel head first for 5 - 10 meters. - Use different floating positions on their backs; e.g.: Starfish, tub, sloop Games <ul style="list-style-type: none"> - Head first scull relays - Head first scull races - Simon says - Joined sculling
Common mistakes & how to coach them	<ul style="list-style-type: none"> - No travel: ensure the wrist angle is correct and that the fingers are together - Bouncy: ensure the swimmers apply the same pressure outwards and inwards. - Hips sink: encourage the swimmers to scull a bit deeper, just below the hips - Swimmer drives the movement from the shoulders pulling the arms away from the trunk: you can use plastic bottles or tennis balls under their heads and ask them to scull while holding them.

SYNCHRO SWIM NEW ZEALAND

TECHNIQUE	FEET FIRST SCULL ON BACK
Description	<ul style="list-style-type: none"> - Same as the standard scull on back - Wrists in palmar flexion (finger tips pointing down) & hands cupped
Check points	<ul style="list-style-type: none"> - Both hands at the same depth in the water. - Outwards / inwards movement, not up & down - Elbows bent and close to the trunk - Wrist bent with finger tips pointing down - Fingers together - Constant speed of action in both the outward and inward scull cycle. - Constant pressure on outward and inward movement. - Upper arms and elbows relatively stationary. - Regular rhythm. - Hands cupped (like ice-cream scoops)
Drills, activities & games	<p>LAND-BASED</p> <ol style="list-style-type: none"> Lying on their back <ul style="list-style-type: none"> - Lie down on the floor as if they were doing a back layout position. - With their hands by their sides, bend the elbows until hands are next to their hips with finger tips pointing down and hands cupped. - Move the hands in and out, simulating the same feet first scull technique that you try on the flat surface. <p>WATER-BASED</p> <ol style="list-style-type: none"> Teaching feet first scull <ul style="list-style-type: none"> - In shallow water, standing up, perform the sculling movement so the swimmer can see the arms/hands action as they do it. - In Back Layout Position with a noodle under the armpits and another under their feet for support, travel a short distance - In Back Layout Position with a pull buoy between their feet, travel feet first for 5 - 10 meters. - Use different floating positions on their backs; e.g.: Starfish, tub, sailboat Games <ul style="list-style-type: none"> - Feet first scull relays - Feet first scull races - Simon says - Joined sculling
Common mistakes & how to coach them	<ul style="list-style-type: none"> - No travel: ensure the wrist angle is correct and that the hands are cupped - Bouncy: ensure the swimmers apply the same pressure outwards and inwards. - Hips sink: encourage the swimmers to scull a bit deeper, just below the hips - Swimmer drives the movement from the shoulders pulling the arms away from the trunk: you can use plastic bottles or tennis balls under their heads and ask them to scull while holding them.

SYNCHRO SWIM NEW ZEALAND

TECHNIQUE	PROPELLER SCULL
Description	<ul style="list-style-type: none"> - This scull can be used in a front or back layout position, as well as in inverted positions such as vertical, split and bent knee vertical position, always propelling the swimmer towards their feet. - Arms extended overhead - Wrist in dorso flexion, facing away from the opposite direction the swimmer desires to move towards - Starting the movement from the elbows, the hands move out and in. - Outwards scull: leading with the pinky, palms facing out slightly - Inwards scull: leading with the thumb, palms facing in slightly
Check points	<ul style="list-style-type: none"> - Both hands at the same depth in the water. - Outwards / inwards movement, not up & down - Elbows slightly bent - Fingers together - Wrists slightly bent - Constant speed of action in both the outward and inward scull cycle. - Constant pressure on outward and inward movement. - Upper arms and elbows relatively stationary. - Regular rhythm.
Drills, activities & games	<p>LAND-BASED</p> <p>1. Standing up</p> <ul style="list-style-type: none"> - Standing up, with arms extended above the head - Slightly bend the elbows and flex the wrists. - Move the hands in and out, simulating the same propeller scull technique that you tried on the flat surface or upside down.. <p>WATER-BASED</p> <p>a) Teaching propeller scull</p> <ul style="list-style-type: none"> - Standing on the bottom of the pool, extend the arms by the head and propeller away from the surface aiming to keep the feet in contact with the bottom of the pool - In Back or Front Layout Position with a pull buoy between the feet, the swimmer propellers aiming to travel towards their feet. - In Back or Front Layout Position, with a kickboard under the hips, propeller to travel a short distance towards the feet. - Propeller in Split position - Propeller in Vertical Bent Knee Position - Propeller in Vertical Position - Propeller in an inverted position, going up and down <p>b) Games</p> <ul style="list-style-type: none"> - Propeller relays - Propeller rolling from front to back and vice-versa - Joined sculling
Common mistakes & how to coach them	<ul style="list-style-type: none"> - No travel: ensure the wrist angle is correct - Bouncy: ensure the swimmer apply the same pressure outwards and inwards. - Feet sink: work on the Back or Front Layout position without sculling but placing the arms above their heads. This changes the centre of gravity and therefore the swimmer finds it different to stay afloat in these positions. - Swimmer drives the movement from the shoulders pushing up and down: encourage a "waving" movement

SYNCHRO SWIM NEW ZEALAND



TECHNIQUE	BARREL SCULL
Description	<ul style="list-style-type: none"> - This scull is use to travel head first in a Front Layout Position and to perform a Pike Pull Down - Arms extended over head, 10-20 cm belows the surface - Hands turned inwards and wrists bend, so the palms are facing the head. - Alternating arms, the forearm and the hand move towards the head, pulling water in that direction with a circular motion.
Check points	<ul style="list-style-type: none"> - Full body extension - Ensure the swimmer pulls the water towards them - Smooth and fluid - Constant pace - Even pull - Butt & feet dry
Drills, activities & games	<p>LAND-BASED</p> <ol style="list-style-type: none"> 1. Standing up <ul style="list-style-type: none"> - Standing up, with arms extended above the head - Palms facing inwards and wrists bend, so they are facing the head. - Replicate the barrel scull movement dry. <p>WATER-BASED</p> <ol style="list-style-type: none"> a) Teaching barrel scull <ul style="list-style-type: none"> - In Front Layout Position with a flotation aid between or underneath the legs - In Front Layout Position with a kickboard under the hips - In Front Layout Position, travel a short distance towards the head using barrel scull
Common mistakes & how to coach them	<ul style="list-style-type: none"> - No travel: ensure the wrist angle is correct and that the swimmer is pulling water towards their head - Feet sink: work on the Front Layout Position with hands over head

SYNCHRO SWIM NEW ZEALAND



TECHNIQUE	SUPPORT SCULL
Description	<ul style="list-style-type: none"> - This scull is use to maintain an inverted position - Arms by the trunk, with elbows bent 90 degrees and slightly separated from the trunk - Hands facing the head with wrists aligned to the forearm. - Two repeated movements, outwards and inwards scull. - Outwards, keeping the elbows close to the trunk, the hands and forearms move away from the centre line, leading with the thumb - Inwards, the hand and forearm move towards the centre line leading with the pinky. - With beginner swimmers, we won't get too technical as this scull can be quite complex for this level of swimmers
Check points	<ul style="list-style-type: none"> - Palms facing the bottom of the pool - Elbows fist apart from the trunk, not moving in and out - Smooth and fluid - Constant pace - Even in & outwards scull
Drills, activities & games	<p>LAND-BASED</p> <ol style="list-style-type: none"> 1. Standing up <ul style="list-style-type: none"> - Standing up straight with arms by the sides, elbows bend 90 degrees and palms facing up - Keep elbows slightly separated from the trunk, fist or tennis ball distance - Replicate the support scull movement - You can ask the swimmers to balance a toy on their palms or a small kickboard on the hands and forearms <p>WATER-BASED</p> <p>a) Teaching support scull</p> <ul style="list-style-type: none"> - In shallow water, standing on the bottom of the pool, scull. Encourage swimmer to observe their arms and to go through the check points - Same as above in deeper water, ask swimmers to aim to keep their feet on the bottom all the time while performing support scull. - Ask swimmers to lay on their backs, with their shins on the wall from there, assume a table top position (shins on the wall and rest of the body upside-down in the water parallel to the wall) and perform support scull in this position. You can do this in pairs, one scull while the other one checks key points. - Same as above but providing the tempo (coach taps and swimmers sculling to the tap, one tap out, one tap in) - Support scull on Front Layout Position - Support scull on Table Top position with a pool noodle between feet or a noodle underneath the ankles - Support scull on other inverted positions (Front, Vertical, Bent Knee Vertical)
Common mistakes & how to coach them	<ul style="list-style-type: none"> - Swimmer moves arms up and down ("chicken wings"): practice support scull in land and in the water with a small drink bottle under each armpit (make sure the bottles are full) - Swimmer struggles to get help check the forearm/arm angle and the wrists angle - Forearm and hands move up and down rather than out & in: practice standing up on the bottom with partner or coach watching and correcting. Focus on execution not height. - Positions look bouncy because the swimmers applies more strength in the outwards scull. Ensure strength and speed is even and constant.

SYNCHRO SWIM NEW ZEALAND



SSNZ STAR PROGRAMME

Description, purpose and coaching tips

This developmental skills programme was originally created by Synchron Canada and used and adapted all over the world for over 40 years. SSNZ has reviewed the Canadian model and adapted to the NZ reality and standards. The programme consists of 10 stars (levels), in which the swimmers need to demonstrate competency in different skills: techniques, positions, transitions, figures and short routines.

The SSNZ Stars programme provides swimmers and coaches with a well-planned progression to acquire, develop and master Synchron skills, as well as with a monitoring and evaluation system; Star Tests. In the Star Test, the swimmers have to perform in front of SSNZ Judges the elements required for the level they are sitting. The judges will evaluate and score each skill/figure using the FINA scoring scale (0 - 10) and write some feedback about the performance. Each level has an established passing mark. For each Star level the swimmer achieves, they will get a star badge, each level represented with a different colour.

If swimmers decide to take a competitive pathway and compete at SSNZ National Championships, they must have achieved the following Star Awards standards for the SSNZ Competitive Level 2 events:

EVENT	
Delphin Figures & Combo	3
Aquanaut Figures & Duet/Trio	4
Aquarina Figures & Duet/Trio	5
Aqua Combo	4



COACHING TIP

Check the SSNZ website to access the full SSNZ Star Programme:
<http://www.sporty.co.nz/synchronz>

LEVEL	REQUIREMENTS
<p style="text-align: center;">1</p> <p>Pass Mark = 3.0</p>	<ol style="list-style-type: none"> 1. Back Layout position, sculling at hips, hold for 8 counts. 2. Back layout position, travelling head first, 5 m. AND travelling foot first, 5 m 3. Head first Dive, from the pool edge. 4. Back Flutter Kick in streamlined position 12 m. 5. Backstroke 12 m. 6. Freestyle 12m. 7. Breaststroke Kick. (On back and Front) 12 m. 8. Tub position with flat scull, sculling at hips hold for 4 counts 9. Back Layout Position to Bent Knee Back Layout Position (Sailboat Alternate) 10. Routine Skills/Transitions (each element 4 counts) - Back Layout, Head first sculling, Backstroke with back flutter kick (4 strokes), Back Layout, Sailboat Alternate, Back Layout.
<p style="text-align: center;">2</p> <p>Pass Mark = 3.0</p>	<ol style="list-style-type: none"> 1. Front Layout Position, sculling at hips. 2. Propeller and Reverse Propeller. 5 m each. 3. Barrel Scull and Paddle scull 5 m 4. Torpedo 5m. 5. Side Flutter Kick 12 m each way with arms extended one dry at water surface. 6. Tuck Position hold for 4 counts 7. 310 Somersault Back Tuck. 8. Front Layout Position to assume Front Pike Position. 9. Head up Breaststroke 12m 10. Routine Skills/Transitions (each element 8 counts) – Back layout, somersault back Tuck, Back layout, log roll to front layout, Paddle scull 5m.
<p style="text-align: center;">3</p> <p>Pass Mark = 3.5</p>	<ol style="list-style-type: none"> 1. Eggbeater Stationary 20 seconds 2. Eggbeater traveling sideways 5m. Left and right each. 3. 303 Somersault Back Pike. 4. Kick-Pull-Kick, 4 right leading arm, 4 left leading arm, 4 alternating leading arm. 5. Support scull, on tummy traveling 5m 6. Split Position join to Vertical position at ankles, 8 counts 7. Assume a Front Pike Position + continue to Fishtail Position 8 counts 8. Back layout to assume a Back Pike Position 9. 320 Somersault Front Pike (figure 2017) / 305 Somersault Back Pick (figure 2018) 10. 302 Blossom (figure 2017) / 361 Prawn (figure 2018)
<p style="text-align: center;">4</p> <p>Pass Mark = 4.5</p>	<ol style="list-style-type: none"> 1. Support Scull in tabletop position 10 sec. 2. 360 Walkover Front. 3. Split scull in submerged ballet position 5 sec. 4. Back Layout to Submerged Back Pike Position. 5. Inverted Tuck, with support scull to Vertical position. 6. Front Pike position to Vertical position. 7. Bent Knee Vertical Position. 8. Thrust. 9. Eggbeater travelling forward 6 m. and backward 6 m. 10. 101 Ballet Leg Swing.
<p style="text-align: center;">5</p> <p>Pass Mark = 4.5</p>	<ol style="list-style-type: none"> 1. Support Scull in Split Position. 2. Support Scull drill – Support scull on tummy travelling foot first, 5m 3. Support Scull (no arm raised), to waist height. 4. Back layout to Surface Arch Position. 5. 301 Barracuda. 6. 401 Swordfish. 7. Submerged Ballet Leg Position, to Surface Ballet Leg Position. 8. Crane Position to Bent Knee Vertical Position. 9. 355 Porpoise. 10. Submerged Flamingo position, Thrust to Bent Knee Vertical Position (End of 342 Heron).



COACHING TIP

If you decide to use the Star programme as a planning guide, make sure you amalgamate the content into your Season Plan and that you incorporate these skills in a fun and engaging way in your sessions rather than practicing the elements in isolation. Remember that technique training can be quite repetitive and boring for young swimmers. Variety, challenge and fun must be part of it!

DOLPHIN CATEGORY

Purpose, rules, figures and routine's requirements

The Dolphin category is the entry level into competitive Synchronised Swimming in New Zealand for swimmers 16 years old or younger

ELIGIBILITY

Swimmers must be aged 16 and under – Dolphin Figures results will be split into two age groups: 12 & Under & 13 - 16

To compete at SSNZ National Championships swimmer must've achieved the SSNZ Star 3

For swimmers not competing in Aquanauts, Aquarinas, Age Group Junior, Senior or Open Events.

After placing 1st or 2nd in the Dolphin's Figures event, a swimmer is no longer eligible to compete in Dolphin Figures.

FIGURES

All swimmers will perform four figures: two from the compulsory group and two from the optional groups

COMPULSORY GROUP

1. Sailboat Alternate (DD 1.3)
2. Somersault Back Tuck (DD 1.1)

OPTIONAL GROUP 2017

3. Somersault Front Pike (DD 2.7)
4. Blossom (DD 1.4)

OPTIONAL GROUP 2016

3. Back Pike (DD 2.5)
4. Prawn (DD 1.6)

ROUTINE

FREE COMBINATION TEAM: 4 – 10 swimmers.

ELIGIBILITY: All swimmers must have entered and competed in the Dolphin Figures event. Up to 2 team members may be Aquanaut, Aquarinas, 12 & Under or 13 – 14 – 15 Age Group swimmers. Aquanauts or Aquarinas swimmers who are over 16 will be eligible to swim in the Dolphin Team.

REQUIRED SECTIONS: One solo part, one duet part and two team parts with all Team members participating. Age Group, Junior, Aquanaut or Aquarina swimmers are not permitted to swim the solo or duet parts.

DURATION 2 min 30 secs, including 10 seconds deck work (+/- 15 sec). 30 second walk on time as per FINA Rules SS 14.1.6 and SS 14.1.7. Free choice of music.

RESULTS: The final calculated score will be the score from the Dolphin Free Combination Team session added to the averaged Dolphin Figures score of the swimmers in the Team competing in Dolphin Figures.

Swimmers from other categories are not required to swim Dolphin Figures, and their Figures scores will not be included in the calculation.

PENALTIES: A 1.0 penalty will be deducted for time violation

DOLPHIN FIGURES - Compulsory group

1. Sailboat Alternate DD 1.3

DESCRIPTION

Beginning in a Back Layout Position. One leg remains at the surface throughout while the foot of the other leg is drawn along the inside of the extended leg to assume a Bent Knee Back Layout Position. The toe moves along the inside of the extended leg until a Back Layout Position is assumed. Repeat the same sequence of movements with the other leg finishing the figure in a Back Layout Position.



COACHING IDEAS

Land-based

- Teach and practice on land. Use different teaching strategies: demo, describe, images, videos...
- Same as above but with eyes closed, focusing on body awareness

Water-based

- Work on the Back Layout and Back Layout Bent Knee Position before focusing on the transition or sequence of movements
- On the wall and with a noodle under armpits.
- On the wall and holding onto milk bottles.
- On the wall with standard scull
- With a noodle under the ankles and holding onto milk bottles
- With a noodle under the ankles, another under the armpits while sculling.
- With a noodle under the ankles and standard scull
- With a kickboard under the hips
- With a kickboard under the shoulders
- Laps with head first or feet first scull

CHECK POINTS

- Body extended
- Front of the trunk, thigh and ankles dry
- In Bent Knee Back Layout Position, 90° angle between the thigh and surface, and as close as possible to 90° between the thigh and trunk.
- At maximum height, a large air pocket will be present between the back of the thigh and calf of the bent knee, and the surface of the water.
- Equal timing
- No long stops, show and go.

2. Somersault Back Tuck DD 1.1

DESCRIPTION

From a Back Layout Position, the knees and toes are drawn along the surface to assume a Tuck Position. With continuous motion, the tuck becomes more compact as the body somersaults backward around a lateral axis for one complete revolution. A Back Layout Position is resumed.



COACHING IDEAS

Land-based

- Teach the tuck position. Play balancing games, tuck jumps, etc.
- Forward & backwards rolls (ensure proper technique and safety)

Water-based

- Work on the tuck position (compact position) in different ways: floating on their front, on their back, on their side, under the water.
- Practice forward and backwards rolls on floating mats.
- Allow time for swimmers rotation in different axis in tuck position
- With a noodle under the armpits and another under the ankles, practice the first part, from Back Layout to Tuck Position and reverse that transition, from Tuck to Back Layout.
- Ask the swimmers to roll backwards from a surface Tuck Position. Encourage them to use their hands/arms to propel their bodies throughout the rotation.
- Work on the full figure with no aids.

CHECK POINTS

- Body fully extended in Back Layout Position to start and finish
- Dry shins as assuming the tuck position
- Tuck position as compact as possible
- Head tucked towards the knees
- Feet and knees together throughout the somersault
- Somersault executed just below the surface, not too deep

SYNCHRO SWIM NEW ZEALAND

DOLPHIN FIGURES - 2017 Optional group

1. Somersault Front Pike DD 1.7

DESCRIPTION

1. From a Front Layout Position as the trunk moves downward to assume a Front Pike Position, the buttocks, legs and feet travel along the surface until the hips occupy the position of the head at the beginning of this action.
2. From a Front Pike Position, maintaining this position, the body somersaults forward around a lateral axis so that the hips replace the head at the one quarter point to assume a Submerged Ballet Leg Double Position. The buttocks, legs and feet travel [move] downward until the hips occupy the position of the head at the beginning of this action.
3. With continuous motion a Front Pike Position is maintained as the body continues to somersault forward around a lateral axis so that the hips replace the head at each quarter point of the revolution until the head and buttocks return to the surface.
4. As the legs move upward to assume a Front Layout Position, the head, back and buttocks travel along the surface until hips occupy the same position as the head at the beginning of this action.



COACHING IDEAS

Land-based

- Practice Pike position: sitting, laying on back, balancing on bottom, on their side
- Standing up with arms extended up by the head, pike from hips keeping the back straight and the legs perpendicular to the ground.
- On a Swiss Ball, ask the swimmer to do a prone hold on their hands with their feet on the ball and pike from the hips reaching a 90 degrees angle.

Water-based

Begin by teaching the figure as a whole focusing on the positions and then start to introduce the sculls to improve the control of the figure.

- Push & glide + front pike (ask swimmers not to use their arms to propel themselves)
- Push & glide + somersault
- Swimmer laying on their front with feet on the wall and a noodle under the hips. Arms are extended by the head and body is piked from the hips.
- From Front Layout Position to Front Pike Position (pike ball down) with a noodle under the feet or a pull buoy between ankles and using barrel scull. Progress this exercise by performing it without the floating aid.
- In pairs, one swimmer assumes a front pike and the other swimmer gently pushes the swimmer over, providing help for the somersault.
- Holding onto milk bottles, ask the swimmer to assume the last pike position (trunk on the surface and legs pointing to the bottom) and practice the transition to front layout.
- Once the swimmers understand the figure and good control of the sculls, you can start practising the figure with a given tempo (e.g. 4 counts per transition, 1 count to hit the position)

CHECK POINTS

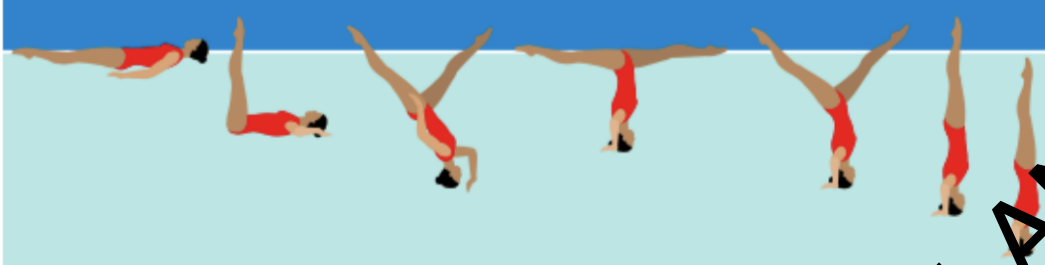
- Smooth even movement downward of trunk.
- Full extension of legs and feet at the surface.
- Trunk remains straight throughout the movement.
- Hips and head back in position simultaneously.
- The hips replace the head at the surface.
- Uniform motion, with no pauses at each corner of the 'box' during the rotation.
- Constant 90 degree angle.
- Simultaneous leg lift and trunk travel, with heels surfacing as Front Layout Position is achieved.
- Face remains in water until heels reach the surface.

DOLPHIN FIGURES - 2017 Optional group

4. Blossom DD 1.4

DESCRIPTION

From a Back Layout position the trunk is lowered as the hips are bent to assume a Submerged Ballet Leg Double Position. The feet separate along the surface as the hips rise and the body assumes a Split Position. The legs join to assume a Vertical Position at ankle level. A Vertical Descent is executed, the body descends along its longitudinal axis until toes are submerged.



COACHING IDEAS

Land-based

- Pike position
- Split position

Water-based

Begin by teaching the figure as a whole focusing on the positions and then start to introduce the sculls to improve the control of the figure.

- Practice the first half of the figure without focusing on the height or sculling and focusing on correct positions and transitions.
- As the closing is at ankle height, it is very hard to practice it using a flotation aid (e.g. milk bottles). Better to practice it at low height, focusing on the evenness of the legs.
- Vertical Descend: hold onto the wall on a Vertical Position with the back on the wall, let the wall go and descend ensuring the back and the back of the legs are in contact with the wall all the time.
- Once the swimmer has an understanding of the figure and good control of the sculls, you can start practising the figure with a given tempo.

CHECK POINTS

- Body fully extended in Back Layout Position.
- Accurate 90 degree angle in Submerged Double Ballet Leg Position
- Ankles out of the water in Submerged Double Ballet Leg Position
- Legs and trunk movement occur simultaneously.
- Even Split Position.
- Legs move evenly to reach a vertical position at ankle height.
- Alignment and extension in Vertical Position and during the descent.
- Descend till toes are completely submerged.

3. Somersault Back Pike DD 1.3

DESCRIPTION

From a Back Layout Position with the body remaining parallel and close to the surface, the legs are lifted rapidly to assume a Back Pike Position. Without a pause the body somersaults backwards around a lateral axis until the feet and head simultaneously reach the surface. A Back Layout Position is assumed.



COACHING IDEAS

Land-based

- V holds
- V sit ups
- Backwards rolls

Water-based

Begin by teaching the figure as a whole focusing on the positions and then start to introduce the sculls to improve the control of the figure.

- Swimmer lays on their back with the feet on the edge. Coach or partner grabs the swimmer's feet, lifts them and push them towards the face, encouraging the swimmer to continue the somersault.
- In a Back Layout Position holding onto milk bottles, the swimmer lift the legs rapidly towards the face, releasing the milk bottles and continuing the rotation in a Back Pike Position.
- Holding onto milk bottles, ask the swimmer to assume Back Layout and rapidly flick their legs towards their face keeping them together and straight. The release the bottles and continue in rotation.

CHECK POINTS

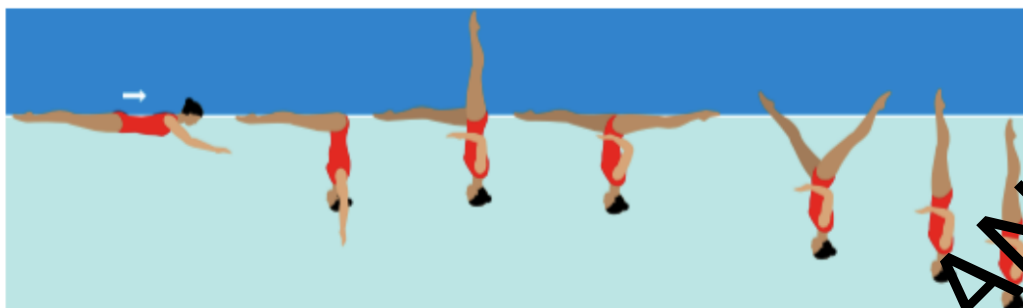
- Body fully extended in Back Layout Position to start and finish
- Dry shins as assuming the tuck position
- Tuck position as compact as possible
- Head tucked towards the knees
- Feet and knees together throughout the somersault
- Somersault executed just below the surface, not too deep

DOLPHIN FIGURES - 2018 Optional group

4. Prawn

DESCRIPTION

From a Front Layout Position, a Walkover Front is executed to the Split Position. The legs join to assume a Vertical Position at ankle level. A Vertical Descent is executed.



COACHING IDEAS

Land-based

- Same exercises as for Somersault Front Pike

Water-based

Begin by teaching the figure as a whole focusing on the positions and then start to introduce the sculls to improve the control of the figure.

- In Front Pike Position with the feet on the wall, and holding onto milk bottles, lift one leg drawing a 180 degree arc until arrive to Split Position. Once the swimmer understands the transition and seems to have control of the positions and transition, do it without the milk bottles.
- Same as above but off the wall.
- As the closing is at ankle height, it is very hard to practice it using a flotation aid (e.g. milk bottles). Better to practice it at low height, focusing on the evenness of the legs.
- Vertical Descend: hold onto the wall on a Vertical Position with the back on the wall, let the wall go and descend ensuring the back and the back of the legs are in contact with the wall all the time.
- Once the swimmer has an understanding of the figure and a good control of the sculls, you can start practising the figure with a given tempo.

CHECK POINTS

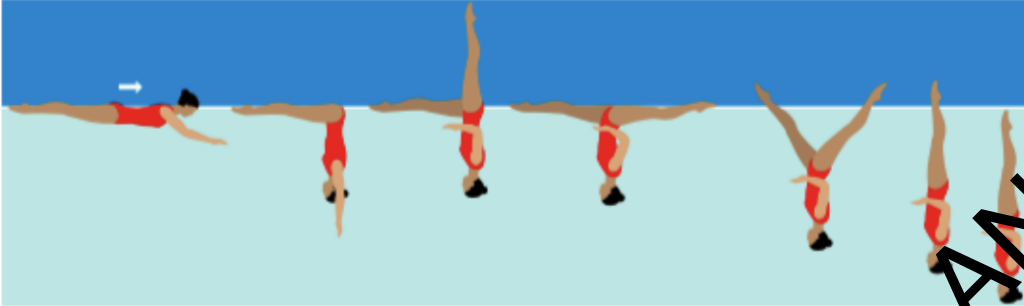
- Full extended body in Front Layout Position
- Head replace the hips after the pull down
- Accurate 90 degree angle in Front Pike Position. Look at the "Check Points" for Front Pike Position.
- When transitioning from Front Pike to Split Position, leg fully extended "drawing a rainbow".
- In Split Position; head, shoulder and hips aligned and legs even. Look at the "Check Points" for Split Position.
- When closing to Vertical Position, the legs move evenly and simultaneously, showing the vertical position at ankle height.
- Control and alignment throughout the vertical descent.
- Figure finishes when the toes are totally submerged.

DOLPHIN FIGURES - 2018 Optional group

4. Prawn

DESCRIPTION

From a Front Layout Position, a Walkover Front is executed to the Split Position. The legs join to assume a Vertical Position at ankle level. A Vertical Descent is executed.



COACHING IDEAS

Land-based

- Same exercises as for Somersault Front Pike

Water-based

Begin by teaching the figure as a whole focusing on the positions and then start to introduce the sculls to improve the control of the figure.

- In Front Pike Position with the feet on the wall, and holding onto milk bottles, lift one leg drawing a 180 degrees arc until arrive to Split Position. Once the swimmer understands the transition and seems to have control of the positions and transition, do it without the milk bottles.
- Same as above but off the wall.
- As the closing is at ankle height, it is very hard to practice it using a flotation aid (e.g. milk bottles). Better to practice it at low height, focusing on the evenness of the legs.
- Vertical Descent: hold onto the wall on a Vertical Position with the back on the wall, let the wall go and descend ensuring the back and the back of the legs are in contact with the wall all the time.
- Once the swimmer has an understanding of the figure and a good control of the sculls, you can start practising the figure with a given tempo.

CHECK POINTS

- Full extended body in Front Layout Position
- Head replace the hips after the pull down
- Accurate 90 degree angle in Front Pike Position. Look at the "Check Points" for Front Pike Position.
- When transitioning from Front Pike to Split Position, leg fully extended "drawing a rainbow".
- In Split Position; head, shoulder and hips aligned and legs even. Look at the "Check Points" for Split Position.
- When closing to Vertical Position, the legs move evenly and simultaneously, showing the vertical position at ankle height.
- Control and alignment throughout the vertical descent.
- Figure finishes when the toes are totally submerged.

COACHING ROUTINES

Routines are the “fun” part of Synchro. Incorporating them into your lessons will add variety to the session and will get the swimmers more involved and motivated as they participate in the choreographing process of the routine.

A routine, by definition, is a composition consisting of strokes, figures and parts thereof, choreographed to music. Within routines, there are different events:

- Solo = one swimmer
- Duet = two swimmers (a new variation has now been introduced, mixed duets which involves one female and one male swimmer)
- Trios = three swimmers (this type of routine is not official under FINA rules but some Federations include it in their local rules and regulations, as we do for Aquarinas and Aquanets)
- Teams = four to eight swimmers (by FINA rules, teams with less than 8 swimmers get a 0.5 point penalty for a swimmer missing, but Federations may have different rules regarding number of swimmers. In New Zealand, teams with less than 8 swimmers don't receive a penalisation)
- Combination Team = eight to ten swimmers and involves a combination of different events (solo, duet, trio & team)
- Highlight Routine: eight to ten swimmers routine in which three required elements must be performed.

We can also distinguish between Free and Technical Routines (solo, duet and team) in the Senior age group.



CHOREOGRAPHING BEGINNERS' ROUTINES

Choreography is the opportunity to interpret music and express ideas, feelings and emotions in harmony with a display of the technical talent and strengths of the swimmers. It is a process that is unique to each coach, each individual and each team.

The ability, experience, "matchability", strengths, likes and dislikes of the athletes must be considered at every stage in the process. This must be a collaborative creative process, where athletes and coaches pull their strengths together in a combined effort to create the best possible routine for that athlete or group of athletes. Choreography is a fun process in which all can be involved and which can unite the team as you work toward developing ideas and toward your common goals. Every swimmer is creative and can contribute to some aspect of the choreography.

For younger or less experienced swimmers, choreography may be more difficult, but every swimmer is likely to enjoy a routine more and perform it better if they have a sense of belonging and ownership. As coach you can direct or closely oversee the choreography while the swimmers can contribute with ideas such as theme, music, arm sequence, leg movements, lifts... Creativity and imagination are two key skills that swimmers need to develop and coaches must nourish.

There are many different views about the process of choreography. Some coaches and swimmers choreograph really quickly in several days. Other coaches and swimmers take much longer to complete a routine. Each coach and swimmer must find the method that works best for themselves. The following points will give you an idea of the things to consider when choreographing a new routine for beginners:

- 1** **KNOW THE RULES:** If you are choreographing a routine intending to participate in a competition, always check the rules. Make sure you check the Competition Rules as well as the FINA ones as some vary from competition to competition. Understanding the rules will help you to maximise and explore your swimmers' potential. Key things to check: length, number of swimmers required, special requirements, possible penalties.
- 2** **KNOW YOUR SWIMMERS:** If you are coaching a new group of swimmers, ensure you take time to know them well, both, in and out of the water. Understanding their needs, wants and capability is crucial to the choreographing process.
- 3** **BE REALISTIC:** Remember you are coaching swimmers who are just getting into the sport. Ensure you set up realistic goals and attainable moves and skills. You want your swimmers to succeed and feeling proud of their achievements. If you ask them to perform moves that are too complex and beyond their abilities, both, you and they will feel very frustrated.
- 4** **CHOOSE A MUSIC SWIMMERS ENJOY:** At this stage, Synchro should be about FUN! You want the swimmers to enjoy their practices and swimming their routines, so ensure they have a voice in choosing the music and it is a piece they can connect too. If you are using songs with lyrics in a foreign language, do some research and make sure it is appropriate.
- 5** **DEVELOP A PLAN/TIMELINE:** Choreographing and coaching a routine is a process that takes time. Being organised is crucial as it will help you and your swimmers to be better prepared for the competition or event you are wishing to present the routine at. Develop a plan that shows what you need to achieve by when. Some key things to define in your timeline are:
 - Music choice
 - Music editing
 - Finalise choreography for each lap
 - Finalise full routine
 - Build on endurance = practice whole routine ("swim throughs")
 - "Polishing" parts and sections
 - Finalise water on and deck work
 - Practice swim before "big" event: organise an opportunity for the swimmers to perform in conditions as similar as the competition as possible (e.g. display)
- 6** **TRAIN AS YOU WANT TO PERFORM:** Coach the swimmers to swim the standard you want by the competition especially in the easy skills like layouts and presentation. Remember you do not need to be a strong swimmer to have great presentation.
- 7** **AVOID LAST MINUTE CHANGES:** Do not make changes for at least 3-4 weeks before a competition if you can. This will dramatically help synchronisation and consistency of the routine. Only make changes that must be made and that will increase the execution of the routine.
- 8** **KEEP IT SIMPLE:** Don't over-complicate moves, patterns and transitions. This will help your swimmers to perform cleaner and better executed routines.

IDEAS FOR A BEGINNERS' COMBO



MUSIC

In consultation with the swimmers, choose a piece of music that is "catchy", that the swimmers like and that is easy enough for them to count and to interpret.

Listen to the whole song and analyse if you need to make any cuts to ensure it meets the time requirements. If you need to make cuts, decide what parts you are going to keep, making sure the music flows nicely without abrupt cuts or disjoints.

Once you have your final piece, listen to it and identify key parts of the music that you may use for highlights or other specific parts.

Ensure you allow time at the beginning for the deck work, water entry and set up.



POOL COVERAGE

Travelling during the routine should be consistent and continuous throughout, so that the maximum amount of distance is covered.

As a general guideline:

- Cover as much of the pool as possible
- After the entry, move out from the edge of the pool before surfacing
- In arm sections utilise a combination of propulsive techniques to assist with movement, e.g. combine arm movements in eggbeater with arms on the side using side flutter kick...
- Travel in angles across the pool rather than straight across, specially when at the extreme far ends of the pool.
- Spread out the highlights of the routine around the pool, try to strategically place them in front of the judges.
- With a beginners' Combination Team aim to:
 - a) cover 3 lengths of the pool (laps)
 - b) have at least one solo, one duet and two team parts
 - c) have two highlights
 - d) place a "wow" moment at the beginning of the routine
 - e) have a memorable end
 - f) maintain consistent levels of execution throughout the routine



TYPE OF MOVES

ARMS:

- Simple moves and angles, easy to perform and synchronise
- Single arm moves in eggbeater, on the side
- Moves on their side supported with side flutter kick

LEGS:

- Simple moves and angles, easy to perform and synchronise
- Leg moves on Back Layout Position (tub, tub variations, sailboat, ballet leg...)
- Inverted leg moves: single leg positions ("hit and go"), surface positions (e.g. table top, split)

FIGURES:

- Somersaults
- Back layout combinations: sailboats, tubs, surface flamingo, ballet leg...
- Walkover
- Helicopter switches

HIGHLIGHTS

- Platform lifts
- Throws
- Paired moves: lifts, arm sequence, arm-leg combinations
- Cadence
- Dynamic surface pattern changes

PATTERNS

- Simple and easy to identify.
- Swimmers should stay close together.
- Be aware of horizontal, vertical and diagonal alignment of the swimmers
- Each swimmer should be aware of the entire pattern, not just her position in it
- Change patterns 3 to 5 times during one lap or more if possible, depending on the level of your swimmers; this will make the choreography more dynamic
- Determine the exact count and a move in which the pattern change will begin and the exact count when the swimmer should be in the next pattern. This will make pattern changes very neat and clear.
- Hold patterns precisely, this is a skill that should be train and mastered continuously



PARTS & EXCHANGES

- Ensure each part of the Combination Team are recognisable (e.g. Solo, Duet, Trio, small Team, full Team)
- While a part (e.g. a solo) is being performed, the other swimmers should be engaged in the choreography, but the main point of attention should be the solo. The other swimmers should continue to travel with the soloist holding a pattern or performing minor moves.
- Maximise your team's strengths and strategically place the different parts along the routine. If you have a team with a wide range of skills and ability, try to put swimmers who have a similar level together in duets, trios or small teams.
- Ensure everyone has their part in the routine and there is a balance, not always the "better" swimmers performing all the parts and highlights.
- Exchanges between parts should be smooth and flow nicely. Explore different ways of performing the exchanges such as arm moves, figures, highlight, throw, etc.



LAND-DRILL

It is the act of practising the routine either with the music or with counts on land.

The purpose of land drilling is to clearly define the synchronisation, pattern accuracy, highlight counts and manner of presentation on land of a particular routine.

If done properly and with quality, it can significantly improve how swimmers perform the routine in the water.

Make sure your beginner swimmers learn and understand this process properly and you will see amazing results in their routine execution in the water.

Guidelines for land drilling:

- The energy required must be evident. Each movement of the body should be explosive with an energy level of 10. This is a good opportunity to teach your swimmers how to swim strongly.
- Posture is always required throughout land drilling.
- Make sure you watch your swimmers while land drilling and provide feedback.

Land Drill technique:

a) Arm moves - they should be performed as in the water

b) Leg moves - certain parts of the lower body are represented by certain parts of the upper body so you can simulate the leg positions with your arms: shoulders represent hips, elbows represent knees, wrists and hands represent ankles and feet.

SYNCHRO SWIM NEW ZEALAND

PLANNING

No matter the level you are coaching, you want your swimmers to have a positive experience in the sport. To have fun, to feel they are achieving and improving and to perform at their best. In order to make this happen, as a coach you will need to carefully plan the season and the sessions.

Even though having and following a plan is very important, as a coach you should be able to identify when the plan needs to be changed and be flexible enough to adapt it to your swimmers' needs.

Planning is not only important if you are coaching a team that is aiming to compete at Regional or National level. It is crucial for all groups and all levels as it provides a platform for goal setting and progressive learning.



This section will help you to better understand:

- the key things to consider when planning a season
- how to sequence plans in a logical and athlete-centred way
- how to develop a term by term plan for your groups
- how to plan for a competitive season
- how to organise your sessions
- how to reflect on your practice



COACHING TIP

PPPPP = Proper Planning Prevents Poor Performance

PLANNING A SEASON



LOGISTICS

Getting the logistics organised from the beginning will save you time later in the season and it will also instill confidence from your swimmers and their parents, with respect to your leadership.

Some tips on how to coordinate logistics will help you to be a more organised coach:

- Swimmers: Clearly understand their age and development stage, level, previous experience, number per group.
- Team communication: Decide how you are going to communicate with your swimmers and their parents. Ensure you have all the contact details needed. Email, phone, club website and Facebook closed groups are all great ways to efficiently connect with your team. Work out with your Club Committee who will do what communication.
- Parents: Take time to know your swimmers' families and ensure communication is fluid and open from day one. It is important that parents, swimmers and coaches are "on the same page" as misalignment and miscommunication can easily cause unnecessary conflict.
- Schedules: Determine when your training sessions are going to be and where. At the beginning of the season, check with the Pool Coordinator if there are any events happening during the year that may be clashing with your normal sessions.
- Calendar: Provide the swimmers and their families with a calendar detailing key dates such as: start/end of the term, school holidays, training camps, displays, competitions. Always try to do this in collaboration with other coaches and your Club's Committee.
- Equipment: Talk to your Club's Head Coach and have a good understanding of what equipment is available for you to use. If there is some key equipment that you may need and it is not available, discuss it with them and the Club's committee. There may be some personal equipment that swimmers may want to encourage the swimmers to purchase (e.g. flippers, pull buoys...)
- Environment: Ensure the physical environment is always safe for your swimmers. If you notice any hazard or potential hazard, report it to the Club's committee. Also ensure the socio-emotional environment is safe too. Don't tolerate any type of bullying and disrespectful behaviour amongst the team.

TIPS FOR DEALING WITH PARENTS

- ▷ Develop open lines of communication
- ▷ Send an introductory letter explaining your coaching philosophy and your expectations
- ▷ Schedule parent meetings during the season
- ▷ Get them involved assisting with different jobs
- ▷ Make it clear when it is appropriate to be poolside



DEVELOP AN ANNUAL PLAN

IDENTIFY GOALS

- Long term: "By the end of the season all swimmers will be able to..."
- Mid term: "By the end of Term 1 all swimmers will be able to..."
- Short term: "By the end of the session all swimmers will be able to..."

Set "Process goals" (personal achievements, improvement) rather than "Outcome goals" (place top 3, score in the 4's...). Involve swimmers in the process of identifying and setting goals.

DO A REALITY CHECK

Where do we want to be (goal) → where are we (current reality) → what do we need to do to get there (action plan)

Apply this process to the following:

- Swimming skills
- Synchro Skills
- Figures
- Routine
- Land-based skills



DEVELOP AN ANNUAL PLAN cont.

• **DETERMINE YOUR SESSIONS' FREQUENCY AND DURATION**

Decide how often your swimmers are going to practise and how long the sessions are going to be. This will determine how much you can achieve in the season.

The following recommendations provide some guidelines of frequency and duration:

a) **New Beginners:**

Frequency: 1-2 sessions per week

Duration: 45 minutes (15 minutes land / 30 minutes water)

Coach/swimmer ratio 1:4

b) **Advanced Beginners (Dolphins or Aquanauts)**

Frequency: 2 sessions per week

Duration: 60 minutes (15 minutes land / 45 minutes water)

Coach/swimmer ratio 1:6

• **SEQUENCE YOUR TEACHING CONTENTS THROUGH THE SEASON AND EACH TERM**

Logically distribute the teaching contents through the season. Identify what needs to be taught first and how to progress from simple to more complex skills.

You can have checkpoints to ensure your plan is on track and if the swimmers are learning and making improvements. You can do simple tests or use the SSNZ Star Programme as a monitoring and evaluation tool as well as a motivational tool for the swimmers.

The following charts provides a sample of an annual plan for a) New beginners & b) Advanced beginners

EXAMPLE OF A NEW BEGINNERS' GROUP ANNUAL PLAN

SKILLS	TERM 1	TERM 2	TERM 3	TERM 4
SWIMMING	- Freestyle: legs & arms - Breaststroke: legs - Pencil dive	- Freestyle: coordination & breathing - Breaststroke: legs & arms - Backstroke: legs & arms - Head first dive	- Freestyle: coordination - Breaststroke: coordination - Backstroke: coordination	- Freestyle: coordination - Breaststroke: coordination - Backstroke: coordination - Butterfly: legs
SYNCHRO	Positions: - Back Layout - Front Layout - Tub Sculling: - Standard: front & back - Head First on back - Feet First on back Kicks: - Back Flutter - Side Flutter	Positions: - Sailboat Sculling: - Propeller Kicks: - Travelling Eggbeater - Kick pull	Positions: - Front Pike Sculling: - Barrel - Paddle Kicks: - Travelling Eggbeater	Positions: - Split Position - Vertical Position - Bent Knee Vertical Position Sculling: - Support Scull Kicks: - Body boost kick
FIGURES	- Somersault front tuck - Somersault back tuck	- Alternate sailboat	- Somersault back pike	- Pike pull down
ROUTINES	- Simple arm combinations on side and back flutter	- Simple arm combinations on side and back flutter + Back Layout positions (tub, sailboat)	- Same as Term 2 but performed as a team in simple patterns - Simple pattern changes	- Add short easy figures to the sequences. - Simple pattern changes - Try lifts and jumps in shallow water.
LAND-BASED	Flex: - Points - Hamstrings & hip flexors Skills & strength: - Forward & backward roll - Core strength	Flex: - Points - Hamstrings & hip flexors Skills: - Roll variations - Balances - Core strength	Flex: - Points - Splits - Back arch Skills: - Roll variations - Paired balances - Core strength	Flex: - Points - Splits - Back arch Skills: - Assisted headstand - Core strength
EVENTS			Star 1	Star 2 End of season display

SYNCHRO SWIM NEW ZEALAND



EXAMPLE OF AN ADVANCED BEGINNERS GROUP ANNUAL PLAN

SKILLS	TERM 1	TERM 2	TERM 3	TERM 4
SWIMMING	<ul style="list-style-type: none"> - Freestyle: legs & arms - Breaststroke: legs - Backstroke: legs & arms - Pencil dive 	<ul style="list-style-type: none"> - Freestyle: coordination & breathing - Breaststroke: legs & arms - Backstroke: coordination - Head first dive 	<ul style="list-style-type: none"> - Freestyle: coordination - Breaststroke: coordination - Backstroke: coordination - Butterfly: legs 	<ul style="list-style-type: none"> - Freestyle: coordination - Breaststroke: coordination - Backstroke: coordination - Butterfly: coordination
SYNCHRO	<p>Positions:</p> <ul style="list-style-type: none"> - Back & Front Layout - Sailboat <p>Sculling:</p> <ul style="list-style-type: none"> - Standard: front & back - Head First on back - Feet First on back <p>Kicks:</p> <ul style="list-style-type: none"> - Back & Side flutter - Stationary Eggbeater 	<p>Positions:</p> <ul style="list-style-type: none"> - Front Pike - Split Position - Vertical Position <p>Sculling:</p> <ul style="list-style-type: none"> - Barrel - Support scull - Propeller <p>Kicks:</p> <ul style="list-style-type: none"> - Travelling Eggbeater - Kick-pull 	<p>Positions:</p> <ul style="list-style-type: none"> - All <p>Sculling:</p> <ul style="list-style-type: none"> - All but focus on Support scull <p>Kicks:</p> <ul style="list-style-type: none"> - All 	<p>Positions:</p> <ul style="list-style-type: none"> - Inverted positions - Layouts <p>Sculling:</p> <ul style="list-style-type: none"> - Support Scull - Thrust pull & push <p>Kicks:</p> <ul style="list-style-type: none"> - All
FIGURES	<p>Compulsory Dolphin figures:</p> <ul style="list-style-type: none"> - Alternated sailboat - Somersault back tuck 	<p>Optional Dolphin figures:</p> <ul style="list-style-type: none"> - Somersault Front Pike - Blossom 	<p>All four Dolphin Figures:</p> <ul style="list-style-type: none"> - parts - full figures - full figures with counts 	<p>Next year's Dolphin Optional group</p> <p>Compulsory Aquanaut/12U figures</p>
ROUTINES	<ul style="list-style-type: none"> - Music chosen & edited (by week 2) - Lap 1 finalised (by week 4) - Lap 2 finalised (by week 7) - Deck work finalised (by week 9) 	<ul style="list-style-type: none"> - Finalise Combo choreo 3 weeks prior Regional Champs - 1-2 swim throughs/session 	<ul style="list-style-type: none"> - Review performance from Regional Champs to decide on any needed changes - All changes made 2 weeks prior Nationals - Focus on polishing parts - Practice changes 	<ul style="list-style-type: none"> - Creative routines for end of season display - Music interpretation - Try solos & duets
LAND-BASED	<p>Flex:</p> <ul style="list-style-type: none"> - Points - Hamstrings & hip flexors <p>Skills & strength:</p> <ul style="list-style-type: none"> - Forward & backward roll - Core strength 	<p>Flex:</p> <ul style="list-style-type: none"> - Points - Hamstrings & hip flexors <p>Skills:</p> <ul style="list-style-type: none"> - Roll variations - Headstand - Core strength 	<p>Flex:</p> <ul style="list-style-type: none"> - Points - Back arch <p>Skills:</p> <ul style="list-style-type: none"> - Hadnstands - Paired balances - Core strength 	<p>Flex:</p> <ul style="list-style-type: none"> - Points - Splits - Back arch <p>Skills:</p> <ul style="list-style-type: none"> - Group balances - Core strength
EVENTS		<p>State Regional Championships</p>	<p>Pre-Nationals display</p> <p>SSNZ Championships</p>	<p>End of season display</p>

SYNCHRO SWIM NEW ZEALAND

PLANNING A SESSION

As a coach, you will find practice time is one of the most precious things, so having your session planned and organised beforehand will allow your swimmers more practice and learning time.

Having a session plan template where you can record goals, equipment, activities and reflect on your coaching practice is a very valuable resource to plan successful and efficient training sessions.

One of the skills you will develop as a coach is to adapt to unexpected circumstances and to be able to adjust your plan to the reality of the day (number of swimmers, equipment, behaviour, pool facilities, etc.). An efficient and effective plan needs to be well structured but flexible enough and easy to adapt if necessary.

When you are planning your sessions it is important that you consider:

- ▷ Alignment: design/select activities according to your coaching philosophy, session's goal, stage of the season, age and level of your swimmers.
- ▷ Goal: what are you wanting to achieve today? By the end of the session the swimmers will...
- ▷ Flow of the session: how do you structure it; how does your warm up relate to what you will be doing later on the session, how do the key learnings relate to previous ones, how do you wrap up.
- ▷ Active/practise time: swimmers get better, more confident and motivated by trying and practising their skills lots of times. When planning your sessions, allow plenty of practise time and minimise the rest/talking time.
- ▷ Be creative: Be creative and vary your activities. By modifying a component of a game, activity or drill you can create a new one and give swimmers a new practise experience. Some of the things you can alter are space, time, equipment, number of participants, relationship with others, scoring points, etc.
- ▷ Organising your group: use different strategies to ensure everyone is actively participating and engaged: small groups, pairs, stations, circuits, etc.

STRUCTURE OF A 60 MINUTES BEGINNERS' SESSION

LAND-BASED TRAINING (15 min)	WARM UP (15 min)	MAIN PART (25 min)	COOL DOWN & WRAP UP (5 min)
<ul style="list-style-type: none">• Warm up• Strength & Flex• Land-based skills that relate to water skills (e.g. balance, rotations, alignment, etc)• Routine land-drill	<ul style="list-style-type: none">• Switch between activities• Swimming: tech, speed & endurance• Use purposeful activities in relation to your goal	<ul style="list-style-type: none">• Revise previous learning• Introduce new synchro skills or practise specific ones• Figures• Routines: choreo & practise	<ul style="list-style-type: none">• Engage in relaxation activities and stretch• Share highlights• Ask for feedback• Reflect on what was achieved



Beginners' Session Plan example

GROUP: Dolphins

DATE: 28/06/2017

OBJECTIVE/S:

- Side Flutter Kick
- Standard Scull on Back
- Somersault Back Tuck
- Combo Lap 1

EQUIPMENT:

- Mats
- Milk Bottles
- Noodles
- Music system

1. LAND-BASED TRAINING (4.00 - 4.15pm)

- Tuck tag: one tagger, other swimmers running around the room, when tagged they have to assume a tuck position. To become free, another team-mate has to run around them. Encourage different ways of balancing on the tuck (side, bottom, back, feet...)
- Forward and Backward rolls.
- Land-drill Combo Lap 1 x 3 - Focus on patterns and pattern changes. Encourage all swimmers to count out loud

2. WARM UP (4.15 - 4.30pm)

- 100m as 25m Freestyle / 25m Backstroke
- 6 x 25m Side Flutter Kick
 - #1: holding onto a milk bottle, right arm leads, other arm by the side of the trunk
 - #2: holding onto a milk bottle, left arm leads, other arm by the side of the trunk
 - #3: holding onto a milk bottle, right arm leads, other arm doing creative moves
 - #4: holding onto a milk bottle, left arm leads, other arm doing creative moves
 - #5&6: in pairs, facing each other. One swimmer takes the lead on the first lap and creates moves while travelling with Side Flutter while the other swimmer mirrors the moves. After first lap, swap roles.

3. MAIN PART (4.30 - 4.55pm)

- Statues: define an area. Swimmers move around the area while the music is on, when music stops, they have to float still in Back Layout Position using standard scull.
Variations: Use different body positions to float on their backs with standard scull (e.g. starfish, tub, sailboat...)
- Explore tuck position: allow a couple of minutes for swimmers to play around trying different ways of assuming a very compact position in the water. Encourage underwater, surface, inverted...
- Somersault Back Tuck:
 - Show swimmers a poster of the figure step-by-step and ask them to try it. Observe them and identify what parts of the figure need attention and practice. Ask them what are they finding hard, what are they finding easy...
 - First part (back layout to tuck): with a noodle under their ankles, ask swimmers to assume a tuck position on their backs using standard scull. Progress and do it holding onto milk bottles and with no noodle. If swimmers are looking confident and competent, ask them to do it without any aid.
 - First part plus rotation: start in a Back Layout Position with standard scull. Assume a tuck position and without stopping continue rotating backwards. Allow time to practise. Provide specific feedback.
- Routine practice:
 - Swim Lap 1 with music, observe and identify small parts that need attention. Pick the 3 most important.
 - Practise each of those 3 parts with counts 3 times.
 - Swim Lap 1 with music again, encourage swimmers to focus on those 3 parts.
 - Provide specific feedback on those 3 parts

4. WIND UP (4.55 - 5.00pm)

- Fun jumps: Jump off the side or the block into tuck position
- Review session learnings:
 - What did we work on today?
 - What is one thing you are going to focus on next time?
 - What was the thing that you enjoyed the most today?

REFLECTION

A major tool for evaluating your coaching performance is the reflection process, which has been described as a process that helps to turn experience into knowledge. Many coaches develop their skills and expertise through their experiences; however, simply acquiring experiences does not guarantee coaching learning. It is the integration of experience and knowledge in a meaningful way that promotes learning and in turn develops expertise. Coaches need to know how to best learn through their experiences.

Reflection is at the heart of the learning process. It is a necessary component in learning to regulate one's thoughts, feelings and actions. Reflection links experience and knowledge by providing an opportunity to explore areas of concern in a critical way and to make adjustments based on these reflections. This exploration enhances learning and promotes coaches' abilities to identify and respond to cues within the environment.

This process can be done during a training session; after it; through the season; after a display; after a competition, at the end of the season... basically at any time.

Here are simple tools that you can use to reflect on your coaching practice:



TOOL 1

KEEP - CHUCK - CHANGE

KEEP - What went well that we will keep for next time?

CHUCK - What didn't go well and we will stop doing?

CHANGE - What needs some adjustments for next time?



TOOL 2

TRAFFIC LIGHTS



Red: Stop doing

Yellow: Do differently

Green: Start doing

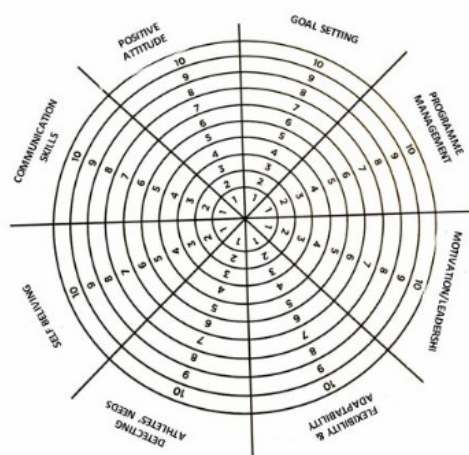


TOOL 3

SELF REFLECTION TOOL

The "Spider-web" template is a good visual tool to assess different qualities and skills that you require as a coach. You can complete it yourself at the beginning of the season and then repeat it during and at the end. You can also ask your athletes or other coaches to assess you so you can have an idea of how you are perceived as a coach.

These are just some of the categories/skills you can be assessed on, but you may have some other interesting ideas.



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SYNCHRO SWIM NEW ZEALAND

"Coaching is unlocking a person's potential to maximise their own performance. It is helping them to learn rather than teaching them."

Timothy Gallwey

SYNCHRONIZED SWIM NEW ZEALAND

An illustration of two synchronized swimmers in a pool. The swimmers are shown from the waist up, with their arms raised in a synchronized pose. The pool is represented by horizontal wavy lines in shades of blue and teal. The background is a dark blue gradient with several white starburst shapes scattered across it.