



## MEANINGFUL COMPETITION

### PROTOCOL FOR PSO-NSO GENERAL ATHLETIC AND SYNCHRO SKILLS

LEARN TO TRAIN – 9-10 & 11-12  
TRAIN TO TRAIN – 11-12 & 13-15  
TRAIN TO COMPETE – JUNIOR / 16-18

*2017-2018 Season*

#### YouTube video examples:

##### [2017-2018 Skills Land Video](#)

*If this link does not work, please copy it and paste it in the address bar of your favourite browser.*

##### **Please note:**

- The athletes in the video examples are not entirely accurate in their performance of the competencies. The objective was to show athletes at different ages and skill level.
- Please refer to the list of competencies on the score sheet.
- The competencies are scored as a **pass** or **fail**.

At Synchro Canada, we believe in developing athletes that are Durable by Design, and not developing athletes by chance (*Dr. Dean Kriellaars*). “Durability” is defined as “the ability to endure”, which in sport and for Synchro Canada means, developing athletes that have the ability to participate, endure training, endure competition, and life. Durability training includes both MENTAL and PHYSICAL characteristics. Durability is an inclusive term, and includes training in the areas of:

- Fitness
- Physical literacy
- Motor control
- Biomechanics
- Nutrition
- Sleep, rest, recovery and regeneration
- Psychological
- Social



- Injury prevention
- Awareness and hazard detection
- And many more

Based on long-term athlete development principles:

- ✓ Suppleness
- ✓ Speed
- ✓ Skill development (before the onset of adolescent growth spurt)
- ✓ Physical literacy (before the onset of adolescent growth spurt)
- ✓ Strength (immediately after the PHV, or the onset of menarche)

are priorities to be trained and tested during the Learn to Train, Train to Train and Train to Compete stages.

The following explains the protocols for Meaningful Competition PSO-NSO General Athletic and Synchro Skills event to be completed during the 2017-2018 season.


Each province is asked to implement some form of skill events within their competition structure or via club testing. For more information on your provinces skills list and implementation, please communicate with your provincial organization.



# PSO-NSO Skills Protocol 2017-2018



## LEARN TO TRAIN, TRAIN TO TRAIN, TRAIN TO COMPETE

PURPOSE	DEPENDENT MEASURE	REQUIRED EQUIPMENT	
To assess: ✓ Speed ✓ Skill ✓ Core Strength & Stability ✓ Strength ✓ Stamina ✓ Suppleness in the joints: <ul style="list-style-type: none"><li>• hip flexion &amp; extension</li><li>• lumbar spine flexion &amp; extension</li><li>• knee extension</li><li>• ankle plantar flexion &amp; dorsiflexion</li><li>• toes flexion</li></ul>	<ul style="list-style-type: none"><li>– Suppleness</li><li>– Speed</li><li>– Skill (body position)</li><li>– Synchronization (to metronome)</li></ul> <i>* Please see score sheet for detailed scoring criteria's for each skill</i>	<div><u>LAND</u><ul style="list-style-type: none"><li><input type="checkbox"/> Metronome <b>set at 135</b></li><li><input type="checkbox"/> Dowel with measuring tape attached (note the starting measure)</li><li><input type="checkbox"/> Athlete Score sheet</li><li><input type="checkbox"/> Yoga mat (each athlete brings their own) with an “X” in the center</li><li><input type="checkbox"/> Two Foam rollers</li><li><input type="checkbox"/> Black bathing suit</li><li><input type="checkbox"/> Black athletic shorts (knees must be visible)</li><li><input type="checkbox"/> Black tank top (optional)</li><li><input type="checkbox"/> Hair should be in a bun or in a swim cap.</li></ul></div> <div><u>WATER</u><ul style="list-style-type: none"><li><input type="checkbox"/> Timers</li><li><input type="checkbox"/> Whistle</li><li><input type="checkbox"/> Stopwatches or cellular phones</li><li><input type="checkbox"/> Athlete score sheet</li><li><input type="checkbox"/> Black bathing suit</li><li><input type="checkbox"/> Swim cap</li></ul></div>	
Basic Protocol			
<div>1. Athletes must have knees and ankles exposed for land skills (as per photo)</div> <div>2. Athletes must be in black bathing suit and black shorts/ yoga shorts (Black tank top is optional)</div> <div>3. Athletes will have a minimum of 5 minutes for a warm-up period</div> <div>4. Athlete will set-up on the “X” on their yoga mat in the start position. Evaluator will give a full 8 count to indicate the start of the test.</div> <div>5. For all the skills, athletes will take <b>1 full set of 8 counts to setup, 2 full sets of 8 counts to hold the position, and 1 full set of 8 counts for transition.</b></div>			
GOAL	CANADIAN STANDARD		
<div><input checked="" type="checkbox"/> Attain proper positions to get the most points possible</div> <div><input checked="" type="checkbox"/> Attain Canadian Standard for toe flexion, ankle plantarflexion and knee extension (demonstrated in photo to the right)</div>	<div></div> <div>All points/ competencies related to knee and foot extension are compared to the Canadian Standard</div>		
Video example:			
<div><a href="#">2017-2018 Skills Video</a> <i>If this link does not work, please copy it and paste it in the address bar of your favourite browser</i></div> <div><div>Please note:</div><div><div>→ The athletes in the video examples are not entirely accurate in their performance of the competencies. The objective was to show athletes at different ages and skill level.</div><div>→ Please refer to the list of competencies on the score sheet for specific criteria's to achieve.</div><div>→ The competencies are scored as a <b>pass</b> or <b>fail</b>.</div></div></div>			



# PSO-NSO Skills Protocol 2017-2018



## REMINDERS FOR COACHES WHEN TEACHING SKILLS *by Dr. Dean Kriellaars presentation at 2016 Synchro Canada Convention*

### **Repetition Based Learning with Knowledge of Results.**

- The human nervous system is adept at learning tasks/skills when provided with **repetitions** of the movement when there is “knowledge of results”.
  - If a child is moving down a movement or agility ladder, they know if the movement is correct by the footwork required, so with each successive pass down the ladder, they typically reduce errors in execution by knowing the results of their own performance (self-monitoring).
  - With objectives and feedback, the brain can self-correct movement with repetitions.
  - This creates a robust nervous system capable of dealing with variations in movement circumstances.
- Providing instructional cues can facilitate the learning process but not at the expense of repetitions to hone the nervous systems ability to generate the movement.

### **Confidence**

Confidence is built on fun and challenging experiences mixed with successes and failures

- Lesson plans need to be designed to enhance confidence. It is insufficient just to have fun.
  - The session must have a challenge that can be overcome.
  - Failures need to occur for ultimate success.
- Children need a safe place to allow failures, but need as many or more successes to progress – appropriate challenge.

### **Learning at Speed**

- People learn best when the movement speed is reduced or the skill is broken down to its component parts.
- Have the participants execute movement at slower speeds, then progress the speed as execution errors reduce over repetitions.
- When speed is increased, accuracy decreases (errors increase), so time (repetitions) is needed to adjust to each new speed.

**“Accuracy first – speed second”**

### **Peer Pressure**

- A single line up with children waiting and watching each other creates a situation of social inhibition of movement.
  - Create shorter lines (or no lines) so that many are moving at once – this creates anonymity. This also creates more repetitions.
  - Create multiple stations so that “observers” are minimized.
- Ultimately, performance of movements in front of others needs to be progressed (the audience effect), but initially it can be counter-productive for learning.



# PSO-NSO Skills Protocol 2017-2018



## Time Pressure

- **Control time pressure** in activities so that the participant does not “feel” rushed.
  - If time pressure is present (*apparent or perceived*) then the ability to learn a new skill is minimized.
  - Example
    - If children are lined up to use a piece of equipment, the person executing in the equipment should not feel as if they need to vacate the space for the next person – especially during learning.
- Leaders should set up enough time for all participants to perform multiple repetitions of the skill without time pressure during the initial movement skill acquisition phase (20 to 100 repetitions).

## Cueing During Movement

- When a person is learning a new task, they **REQUIRE** their higher brain centres to learn.
  - If you prompt or cue during the movement you are diverting their attention away from learning.
  - With each successive repetition the person refines their ability to perform the movement – so errors in execution normally decrease over time with repetition.
  - If you provide feedback of results of execution, the person can often learn the skill without cues.
  - If you provide cues, provide them after execution.
- When someone has acquired the skill – meaning it is **automatic** – they are ready to receive instructions during movement or layer on another movement with the newly learned skill.

## **REMINDERS:**

- **Consistency is king**
- **Progression is everything**
- **Time of task**
- **Self-monitoring**
- **Accountability**



# PSO-NSO Skills Protocol 2017-2018



## Flexibility:

### VERY IMPORTANT FOR COACHES TO UNDERSTANDING:

#### → Quieting the Residual Tone

What is tone?

- TONE of a muscle is simply the combination of background activity of a muscle (there is generally some electrical activity of the muscle at “rest”) and intrinsic tension of a muscle from elastic tissue (hold a piece of beef in your hands)
- This means the nervous system (motoneurons) are being activated
  - The higher brain centres
    - Apprehension – performance anxiety
    - Pain
  - Spinal centres
    - Nociception – local guarding
  - Reflexes like the stretch reflex
    - Intrinsic features of muscle (viscosity)

#### Types of Stretches

- Static Stretching (Slow Sustained Stretching)
- Dynamic Stretching
- Ballistic Stretching
- Proprioceptive Neuromuscular Facilitation (PNF)
  - Contract – relax

## Back Bend or BRIDGE:

### Bridge

Position in which the body is bent backwards in dorsal hyperextension, with support on the hands and feet.

*Prerequisite for front and back walkovers.*



**\*\*\* Extra care to properly teach progressions is VERY important.**

**\*\*\* Spotting is MANDATORY when teaching the bridge to athletes until the skill is accomplished.**



# PSO-NSO Skills Protocol 2017-2018



## Back bend or Bridge

### Learning progression:

1. Arch on floor → dynamic arch → arch rocker (*picture 1*)
2. Prone extension
3. Prone extension with hands walk back
4. Prone extension with heels to head
5. Wall arch with hands high
6. Wall arch with elbows on
7. Snap down (on knees and on feet) (*picture 2a & picture 2b*)
8. Back dolphin (*picture 3*)
9. Back (supine) bridge on floor (head, shoulders and feet on ground, raise buttocks), hold 15sec, 3-5x
10. Back (supine) bridge on floor: hands at ears, fingertips pointing backward, hold 15sec, 3-5x
11. Back bend (spot) - supported under back, press up into bridge, hold 5sec, 3-5x, build up to 10-15sec holds
12. Back bend - round, hold 5sec, 3-5x, build up to 10-15sec holds
13. Back bend – legs extended (straight)
14. Back bend – round to straight (rocker)
15. Back bend – walk hands back to feet
16. Back bend – pelvis raise or lower

### PICTURE 1:

#### • Arch on the floor

Lying prone, get into the arch position and hold this position for 10 seconds.

#### • Dynamic arch

Lying prone, get into the arch position, return to the initial position, and repeat.



#### • Rocker on the stomach

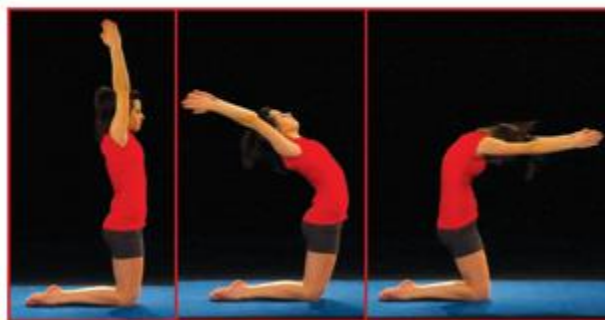
Lying prone, lift the arms and legs and rock the body forward and backwards in the arch position.



### PICTURE 2a:

#### • Snap-down on the knees

Resting on the knees with the upper body upright and the arms extended on either side of the head, move the torso backwards into an arch, return to the upright position and bring the torso forward into the hollow chest position.



# PSO-NSO Skills Protocol 2017-2018

PICTURE 2a:

• **Snap-down on the feet**

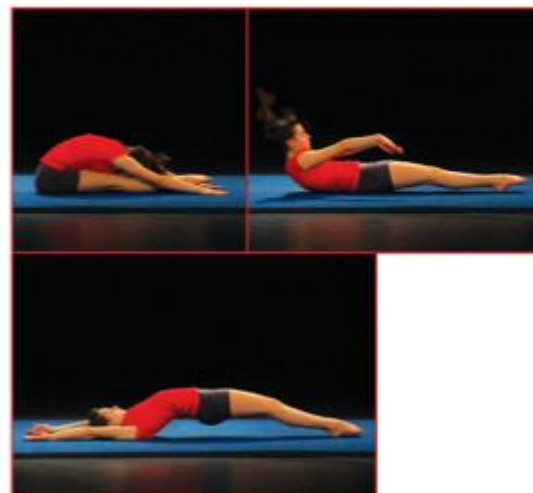
In standing straight position with the arms extended on either side of the head, move the torso backwards into an arch, return to the standing straight position and bring the torso forward into the hollow chest position.



PICTURE 3:

• **Back dolphin**

From the pike position with the legs extended along the floor, open the pelvis, roll down to the mat and bring the arms to either side of the head. Supporting on the feet and shoulder blades, lift the pelvis and get into the arch position.







# PSO-NSO Skills Protocol 2017-2018



The following information is courtesy of “Basic Techniques in Circus Arts - Handstands” by Foundation Cirque du Soleil. We would like to thank Dr. Dean Kriellaars and Cirque du Soleil for sharing their resources with Synchro Canada. The full resource can be found on [synchrocoach.ca](http://synchrocoach.ca) for NCCP members.

## HANDSTANDS (tripod):



### Technical element description:

Balancing on the head with support on both hands.

### Prerequisites

- Body alignment on the back, lying on the ground.
- Front roll – to safely roll out of a tripod handstand of balance is lost

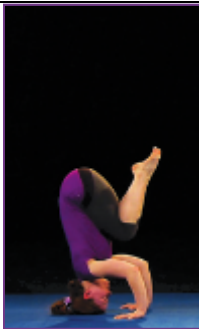
### In synchronized swimming:

A tripod headstand is an important skill in synchronized swimming to develop and master. There is a direct correlation between the ability to maintain an erect posture on land and the athlete's ability in the water. In addition, developing neck strength is very important for athletes. Strong neck musculature can help prevent the severity of injuries such as concussions.

**\*\*\* Safety Notice: *teaching the tripod to young children (10 and under) is not recommended because of the risk of injury to the cervical vertebrae***

\*\*\* Extra care to properly teach progressions is VERY important.

\*\*\* Spotting is MANDATORY when teaching this skill to athletes until the skill is accomplished.



M 1



M 2

### Explanation of the Movement

- From a kneeling position, bend the arms and place the hands under the elbows, forming a triangle with the head.
- Gradually transfer the body weight onto the head, beginning with upper back. Keep the tuck position with the pelvis in posterior tilt until the balance is mastered. **M 1**
- Once the balance is controlled, the legs can be extended vertically with the feet in line with the back. **M 2**



# PSO-NSO Skills Protocol 2017-2018



## Frog stand:



### Learning progression:

#### Initiation:

1. Ask athlete to assume a “frog” stand. If the athlete can complete this position, they have significant strength and balance to attempt the next progression.
2. Ask the athlete to assume a tripod “tuck” position – **M1**. A variant example of a “tuck” position: <https://youtu.be/V8ywhxLT0HU>
3. Hold the tuck position in the tripod

#### Developing:

1. Athlete moves to a vertical position from the “tuck” position – **M2**. Athlete may be close to a wall to assist if loss of balance occurs.

#### Acquired:

1. Athlete achieves vertical position, from a tuck position or uses a straddle lift. Slight movement while holding the position. Has the confidence, strength, coordination, and stability to move away from the wall.

#### Accomplished:

1. Athlete moves with confidence to assume a tripod headstand. No longer requires spotter to maintain position. Shows complete stability for the duration of the skill.

### Variations:

Split: athlete assumes a split position (R / L / Center) in a tripod headstand position.

Crane: athlete assumes a crane position (R / L) in a tripod headstand position.

Bent knee position: athlete assumes a bent knee position (R / L) in a tripod headstand position.

### Educationals

- Start in candlestick position. This educational helps to develop the feeling of elongating the body and stretching the pelvis. This can be done with the hands on the hips, the arms extended along the ground behind the back or behind the head.
- Hold the tuck position in the tripod.
- Hold the legs in a split position in the tripod.
- Sequence the tuck position and the legs in a split position several times by making the butterfly movement.

### Manual Aid

- Hold the participant’s pelvis and make sure his head is in line with the rest of the body, in order to prevent a backwards fall.

*Safety Notice: Teaching the tripod to young children is not recommended because of the risk of injury to the cervical vertebrae*

### Common Mistakes

- The participant cannot lift up into the tripod.
- The participant falls backwards while kicking up.
- The participant is unstable.

### Corrections and Corrective Exercises

1. Positioning the COM above the base of support. Beginning with the upper back and unrolling it gradually until the pelvis is properly aligned over the back.
2. When the legs are extended, perfectly aligning the feet over the thoracic cage.
3. Placing the elbows over the hands. Keeping the gaze on both hands during the tripod.



# PSO-NSO Skills Protocol 2017-2018



## STRENGTH

**\*\*\* Extra care to properly teach progressions is VERY important.**

**\*\*\* Spotting is MANDATORY when teaching this skill to athletes until the skill is accomplished.**

### V-sit Learning progression:

1. Hold a tub position on land, start with 5 sec, 3-4x week, add on 5sec/ week, until hold for 30sec. Concurrently train the flexibility of the pike position to ensure athletes are able to achieve a 90 deg pike position (both lying on back, and in standing position (table top position).
2. From a tub position on land, extend legs to a V-Sit position on land, start with 5 sec, 3-4x week, add on 5sec/ week, until hold for 30sec
3. Start in V-Sit position and slowly lower trunk and legs to floor in a controlled movement. Repeat 10-15x, 3-4x week.
4. Start in supine lying position (back layout position on land), raise the trunk to 45deg, and legs to a tub position, hold for 5-10sec, stop, return to supine position, repeat 10-15x, 3-4x week
5. Start in supine lying position (back layout position on land), raise the trunk to 45 degrees, and legs to 45 degrees, hold for 5-10sec, stop, return to supine position, repeat 10-15x, 3-4x week
6. Attempt full V-sits in a controlled movement, start with 5-10x, 3-4x week.

### Push-up Learning progression:

1. Ensure athlete can hold a plank position for 30sec-1minute
2. Week 1: Try push-up on the edge of a table, about 36 inches in height. Start with 10 repetitions, 3-4x week. Lower the height of table/ bench by 6-12" each week.
3. Week 2: Push-ups on a table/ or bench that is 30-24" in height. Complete 10 repetitions, 3-4x week.
4. Week 3: Push-ups on a bench that is 24-18" in height. Complete 10 repetitions, 3-4x week
5. Week 4: Push-ups on a bench that is 18-12" in height. Complete 10 repetitions, 3-4x week
6. Week 6: Push-ups on a bench that is 12-6" in height. Complete 10 repetitions, 3-4x week. Attempt 2 sets of 10 reps, with 1 minute rest between sets.
7. Week 7: Push-ups on a bench that is 6" height/ or on the floor. Complete 10 repetitions, 3-4x week. Try a 2<sup>nd</sup> set of 5-10 reps, with 1 minute rest between sets.
8. Week 8: Push-ups on the floor. Complete 10 reps, 3-4x week. Try a 2<sup>nd</sup> set of 5-10 reps, with 1 minutes rest between sets.
9. Week 9: Push-ups on the floor: Complete 2 x 10 reps with 1 minute rest between sets, 3-4x week.
10. Week 10: Push-ups on the floor: Complete 2 x 10 reps with 1 minute rest between sets, 3-4x week. Try a 3<sup>rd</sup> set of 5-10 reps.
11. Week 11: Push-ups on the floor: Complete 3 x 10 reps with 1 minute rest between sets, 3-4x week.



PSO-NSO Skills Protocol  
2017-2018



# Learn to Train (Stage 3)

## 9-10 Years

*General Athletic & Synchro Skills*



# PSO-NSO Skills Protocol 2017-2018



SKILLS: 9-10		Nov/ Dec	Jan/ Feb	Feb/ March	April/May
Land: to be performed as an individual routine – video to be distributed					
BP	1. Back layout on 2 FR or 2 benches (on land)	<input checked="" type="checkbox"/>	club	club	club
BP	2. Ballet leg R/L (on land)	<input checked="" type="checkbox"/>	club	club	club
FLEX	3. Back Bend / Bridge <b>OR</b> option: Prone Back Extension	<input checked="" type="checkbox"/>	club	club	club
BP	4. Front layout (on land)	<input checked="" type="checkbox"/>	club	club	club
STRG/FLEX	5. Prone shoulder hyper flexion with dowel	<input checked="" type="checkbox"/>	club	club	club
FLEX	6. Needle R/L	<input checked="" type="checkbox"/>	club	club	club
FLEX	7. Standing Back Pike (Barracuda Set-up)	<input checked="" type="checkbox"/>	club	club	club
FLEX	8. Ariana rotation	<input checked="" type="checkbox"/>	club	club	club

\* Toes Flexion & Ankle PF (plantarflexion) to be assessed within above skills

## CORE: Level 1 – 20 sec/ exercise with no rest

SPEED: 9-10		Nov/ Dec	Jan/ Feb	Feb/ March	April/May
	12.5 m Front flutter kick	<input checked="" type="checkbox"/>	club	club	club
	12.5m Propeller	<input checked="" type="checkbox"/>	club	club	club

BASIC POSITIONS: 9-10		Group picked prior to competition		Nov/ Dec	Jan/ Feb	Feb/ March	April/May
Group 1	Group 2	Group 3	Group 4				
<ul style="list-style-type: none"> <li>Right leg split</li> <li>Back layout</li> <li>Front Pike</li> <li>Bent knee vertical</li> </ul>	<ul style="list-style-type: none"> <li>Left leg split</li> <li>Front layout</li> <li>Submerged BL double pos'n</li> <li>Fishtail</li> </ul>	<ul style="list-style-type: none"> <li>Middle split</li> <li>Sailboat</li> <li>Submerged Back pike position</li> <li>Knight</li> </ul>	<ul style="list-style-type: none"> <li>Surface arch</li> <li>Ballet leg</li> <li>Inverted tuck</li> <li>Vertical</li> </ul>	<input checked="" type="checkbox"/>			

BASIC TRANSITIONS: 9-10		Optional group picked prior to competition		Nov/ Dec	Jan/ Feb	Feb/ March	April/May
Compulsory	Group 1	Group 2	Group 3				
<input checked="" type="checkbox"/> Ariana rotation <input checked="" type="checkbox"/> Back layout to Ballet leg	<input checked="" type="checkbox"/> Walkout (split to knight to surface arch to back layout) <input checked="" type="checkbox"/> Front layout to front pike to sub. BL double pos'n	<input checked="" type="checkbox"/> Front layout to front pike to fishtail <input checked="" type="checkbox"/> Bent knee position to vertical	<input checked="" type="checkbox"/> Back layout to submerged back pike position <input checked="" type="checkbox"/> Vertical descent		<input checked="" type="checkbox"/>		

FIGURES: 9-10		Optional group picked prior to competition		Nov/ Dec	Jan/ Feb	Feb/ March	April/May
Compulsory	Group 1	Group 2	Group 3				
Ballet leg single (1.6) Blossom	Kipnus Walkover front (2.1)	Back tuck somersault Neptunus	Surface prawn (1.5) Somersub			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

\*\*\* Please refer to the FINA Judges and Coaches manuals and the FINA 2017-2021 figure videos for the basic positions, transitions and figures descriptions.



## LEARN TO TRAIN (stage 3) : 9-10 yrs old

START #: \_\_\_\_\_

ATHLETE NAME: \_\_\_\_\_ AGE/YR: \_\_\_\_\_

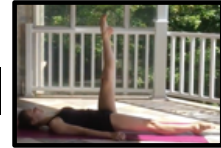
Circle the deductions/ score for each category. Points possible are noted for each event

**LAND SKILLS (69 pts possible) - TOTAL SCORE****1 BACK LAYOUT ON TWO FOAM ROLLERS**

- Head (specifically ears), hips and ankles in horizontal line 1 0  
 Body extended with neutral spine; abdominals and glutes are engaged 1 0  
 Legs together and in full extension 1 0  
**Total out of 3 :**

**2 BALLET LEG ON LAND****Right ballet leg**

- Head, shoulders, horizontal leg are in contact with the floor 1 0  
 Vertical thigh (ballet leg) maintain 90° with the horizontal line 1 0  
 Both knees and both ankles are fully extended as per Canadian standard 1 0  
**Total out of 3 :**

**Left ballet leg**

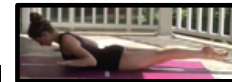
- Head, shoulders, horizontal leg are in contact with the floor 1 0  
 Vertical thigh (ballet leg) maintain 90° with the horizontal line 1 0  
 Both knees and both ankles are fully extended as per Canadian standard 1 0  
**Total out of 3 :**

**3 BACK BEND or BRIDGE**

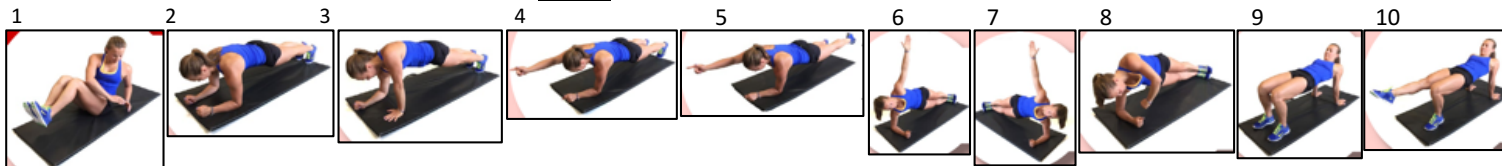
- Legs in full extension and together 1 0  
 Ears aligned with shoulder in vertical alignment 1 0  
 Upper arm in 12 o'clock position 1 0  
 Hold for 2 full counts of 8 1 0  
**Total out of 4 :**

**4 FRONT LAYOUT ON LAND**

- "Canoe" position achieved with lengthened lumbar spine 1 0  
 Neutral cervical spine (no chin poking out) 1 0  
 Legs and feet together and extended as per Canadian standard 1 0  
**Total out of 3 :**

**9 CORE ROUTINE: complete Level 1 - 20sec each exercise with no rest**

- 1 - Sky-Centre-Side-Centre (slow pace) for 20 sec 1 0  
 2 - Front Plank for 20 sec 1 0  
 3 - UP-UP-DOWN-DOWN (slow pace) for 20 sec 1 0  
 4 - Pointers (slow pace) for 20 sec 1 0  
 5 - Superman for 20 sec 1 0  
 6 - Side Plank Right for 20 sec 1 0  
 7 - Side Plank Left for 20 sec 1 0  
 8 - Side Planks Rollovers for 20 sec 1 0  
 9 - Table Top for 20 sec 1 0  
 10 - Table Top Russian Kicks (slow pace) for 20 sec 1 0  
**Total out of 10 :**

**5 PRONE SHOULDER HYPER FLEXION WITH DOWEL**

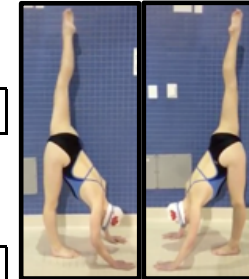
- > 60 cm Stick to floor 5  
 50 cm - 59 cm 4  
 40 cm - 49 cm 3  
 30 cm - 39 cm 2  
 20 cm - 29 cm 1  
 <19 cm 0

**Total out of 5 :** **6 NEEDLE - RIGHT**

- Left Leg is at 12 o'clock 4 0  
 Right leg is at 6 o'clock 1 0  
 Both knees and top ankle are fully extended as per Canadian standard 1 0  
 Hold for 2 full counts of 8 1 0  
**Total out of 7 :**

**NEEDLE - LEFT**

- Right Leg is at 12 o'clock 4 0  
 Left leg is at 6 o'clock 1 0  
 Both knees and top ankle are fully extended as per Canadian standard 1 0  
 Hold for 2 full counts of 8 1 0  
**Total out of 7 :**

**7 STANDING BACK PIKE POSITION (Barracuda set-up)**

- Legs together 1 0  
 Knees fully extended as per Canadian standard 1 0  
 Stomach, chest and face touching legs 1 0  
**Total out of 3 :**

**8 ARIANA ROTATION**

- |   | L   | C   | R   |
|---|-----|-----|-----|
| Vertical alignment of ears, shoulders and torso             | 1 0 | 1 0 | 1 0 |
| Hips and shoulders square                                   | 1 0 | 1 0 | 1 0 |
| Extension of both knees and ankles as per Canadian standard | 1 0 | 1 0 | 1 0 |
| Complete FLAT split   | 4 0 | 4 0 | 4 0 |

**Total out of 7 (for each split) :**

**12.5 m FRONT FLUTTER**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**12.5m PROPELLOR**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**Checklist for coaches to use in training**

Flat sculling motion used with wrists bent well back 1 0

Upper arms stationary 1 0

Elbows are held at 45deg in "Y" position 1 0

**Extension**

toes, knees, hips in full extension 1 0

shoulders full flexion 1 0

legs stay together (side by side) for entire 12.5m 1 0

**Height**

dorsum of foot stay dry (at the surface) for entire 12.5m 1 0

face stays dry (at the surface) for entire 12.5m 1 0

anterior hips stay dry for entire 12.5m 1 0



# PSO-NSO Skills Protocol 2017-2018



## LEARN TO TRAIN 9-10

*The following skills are to be performed in a skills routine \* or individual stations (as per provincial implementation).*

*\* one skill following another with no pause in transitioning from one skill to another.*

### 1. Back layout on 2 Foam Rollers or 2 benches (on land)

- Athletes assume a back layout position on two foam rollers; one placed under the ankles (above the heel) and one placed under the mid-point of the shoulder blades. Athlete may use her arms for assistance and stability (if needed) to assume the position.
- At the timers' signal, athlete maintains the position, with no support from the arms on the floor, for the indicated time/ counts.
- Body alignment = an imaginary line through the ears, shoulders, hips, malleolus should be as close to horizontal as possible.
- Gluts (bum) should be engaged 100%.
- Neutral cervical, thoracic and lumbar spine is maintained and the core should be tight (ribs not poking out).
- Legs and feet together, both knees are fully extended. Both ankles are fully plantar flexed and toes are flexed maximally.
- Arms are along the side of the trunk parallel to the floor and engaged.
- Balanced control for 2 full count of 8.

### 2. Ballet Leg R/L (on land)

- Remove the foam rollers and place to the side.
- Athletes return to back layout bent knee position on the ground.
- Assume a Ballet Leg position on the mat. Arms are extended at a 30 degree angle from the trunk on the floor.
- Body alignment = an imaginary line through the ears, shoulders, hips, and the horizontal malleolus should be as close to horizontal as possible.
- The vertical thigh (ballet leg) maintains 90° with the horizontal line.
- The horizontal leg faces the ceiling (no roll-out).
- Both knees are fully extended. Both ankles are fully plantar flexed and toes are flexed maximally.
- Hold for 2 full 8 counts.

### 3. Back Bend or Bridge Position

- Athletes start position lying on back, heels to bum, legs together and hands prepared beside the head under the shoulders.
- Push up to bridge position for 2 full 8 counts keeping feet and hands in starting position.
- Feet and legs must be together and extended.
- Cervical spine must remain neutral (natural curve of the spine), with the head hanging straight down (no "turtle" heads).
- Ears aligned with shoulder in vertical alignment.
- Hands must be below the shoulders with arms (determined by upper arm) in a position of 12 o'clock.
- Body should come over hands and legs should extend. The energy should push through the shoulders. Fingers should point to heels and elbows should be extended, but not hyperextended.
- Hold for 2 full 8 counts.

### 4. Front layout on land

- Athletes roll onto their stomach after bridge.
- Athletes extend their legs (from the pelvis/ hips) and their trunk with controlled movement – allowed lumbar extension is 20-25 degrees in a lengthened position (no hyperextension - more than 25 degrees) of their lumbar spine, to achieve a "canoe" position.
- Neutral cervical spine is maintained and core should be tight (ribs not poking out and no hyperextension of lumbar spine)
- Legs and feet together, both knees are fully extended. Both ankles are fully plantar flexed and toes are flexed maximally.
- Upper arms are placed beside the trunk, with elbows bent, and forearms in parallel to upper arms, creating a "W" position, parallel to the floor.
- Hold for 2 full 8 counts.





# PSO-NSO Skills Protocol 2017-2018



## 5. Prone shoulder hyper flexion with dowel

- Athletes start position lying on their stomach.
- Arms are extended above their head resting on the floor; inner arms are touching both sides of the head.
- Hands firmly grasp a dowel at a distance equal to the width of the athlete's head.
- Extend the arms as high as possible, raising the dowel off the ground towards the ceiling.
- The distance from the mid-point (marked off prior) of the bottom of the bar to the floor.
- Feet, legs, torso and forehead must remain in contact with the floor.
- Hold extension for 2 full 8 counts.

## 6. Right Needle followed by Left Needle

- Athletes will assume a standing pike position with feet on the "X" and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Left leg is lifted to the vertical position with hips, knee and foot of the vertical leg square.
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Left ankle full plantar flexion.
- Maintain the needle position for 2 full 8 count set.
- Athletes will assume a standing pike position with feet on the "X" and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Right leg is lifted to the vertical position with hips, knee and foot of the vertical leg square.
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Right ankle full plantar flexion.
- Maintain the needle positions for 2 full 8 count set.

## 7. Standing Pike Position (Barracuda set-up)

- From a tuck position with the feet together and on the "X" on their yoga mat and hands on the ground
- Push up the hips to position in one count
- Legs together, fully extended, and perpendicular to the floor
- Body is pressed against legs with stomach, chest and face as close to the body, ideally touching
- Hands should be palm up, behind legs (barracuda set-up)
- Hold for 2 full 8 counts.

## 8. Ariana Rotation

- From the pike position, right leg moves backward to assume left split position on centerline with maximum leg extension and hold 2 full counts of 8.
- A rotation is executed to assume the center split. Athletes may use hands and arms to assist with rotations and maintain the center split for 2 full sets of 8 counts.
- A rotation is executed to assume the right split position on the centerline. Athletes may use hands and arms to assist with rotation and hold the position for 2 full set of 8 counts.

## CORE ROUTINE – LEVEL 1 (20 sec/ exercise)

PURPOSE	PROTOCOL	SCORING CRITERIA
To develop core strength	<ul style="list-style-type: none"><li>– Athlete performs each exercise in order as listed on the score sheet for 20 seconds with no rest.</li><li>– Please read the document titled "Performance Core" (red background) for all the details regarding each exercise. Clicking each image will lead you to a video demonstration of the exercise</li><li>– Please review the video of all the exercises performed one after another.</li></ul>	Athlete receive one (1) point for each exercise if they complete the exercise for the complete 20 seconds and takes no rest while changing from one exercise to the next.



# PSO-NSO Skills Protocol 2017-2018



12.5m Front Flutter Kick			
PURPOSE	PROTOCOL		SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 12.5m of the pool in front flutter kick as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Hands must be held together at all times; face may enter the surface water; and athletes may breath when necessary (forward facing ONLY).</li><li>– Time will be recorded when athlete achieve the distance of 12.5m.</li></ul>		SPEED = Time to complete the task

12.5m Propellor			
PURPOSE	PROTOCOL		SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 12.5m of the pool propeller sculling as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start in a back layout position with both hands touching the wall.</li><li>– Starter says: Ready... Whistle</li><li>– Legs must be together and toes must stay at the surface at all times.</li><li>– Face must stay above and out of the water at all times.</li><li>– Time will be recorded when athletes toes pass the 12.5m marker.</li></ul>		SPEED = Time to complete the task

Coaches are reminded to develop competent propeller technique on short distances, i.e.: 5m, and build up the capacity to complete 12.5m with perfect technique.

Coaches are asked to use the following guidelines to evaluate each athlete competencies for height, body position and technique in daily training environment:

## Extension

- |   |   |  |
|---|---|--|
| 1 | 0 | toes, knees, hips in full extension                |
| 1 | 0 | shoulders full flexion                             |
| 1 | 0 | legs stay together (side by side) for entire 12.5m |

## Technique

- |   |   |   |
|---|---|---|
| 1 | 0 | Flat sculling motion used with wrists bent well back so that the fingertips point to the bottom, palms flat |
| 1 | 0 | Upper arms stationary   |
| 1 | 0 | Elbows are held in the same position, 45degrees from the head, in a "Y" position                            |

## Height

- |   |   |  |
|---|---|--|
| 1 | 0 | Top of the foot of foot stay dry (at the surface) for entire 12.5m |
| 1 | 0 | face stays dry (at the surface) for entire 12.5m                   |
| 1 | 0 | anterior hips stay dry for entire 12.5m                            |



PSO-NSO Skills Protocol  
2017-2018



**L2T / T2T (Stage 3/ 4)**

**11-12 Years**

*General Athletic & Synchro Skills*



# PSO-NSO Skills Protocol 2017-2018



SKILLS: 11-12		LEARN TO TRAIN	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May
	<i>Land: to be performed as an individual routine</i>					
BAL	1. Tripod headstand	OR option: Figure trainer vertical	<input checked="" type="checkbox"/>	club	club	club
FLEX	2. Standing Back Pike	(Barracuda Set-up)	<input checked="" type="checkbox"/>	club	club	club
FLEX	3. 90deg Back pike		<input checked="" type="checkbox"/>	club	club	club
FLEX	4. Back Bend / Bridge	OR option: Prone Back Extension	<input checked="" type="checkbox"/>	club	club	club
SPD	5. Ballet Leg Speed Skill R/L		<input checked="" type="checkbox"/>	club	club	club
STRG	6. V-sit: 10 repetitions		<input checked="" type="checkbox"/>	club	club	club
STRG/FLEX	7. Prone shoulder hyper flexion w dowel		<input checked="" type="checkbox"/>	club	club	club
FLEX	8. Needle R/L		<input checked="" type="checkbox"/>	club	club	club
FLEX	9. Ariana rotation		<input checked="" type="checkbox"/>	club	club	club

\* Toes Flexion & Ankle PF (plantarflexion) to be assessed within above skills

<b>CORE: Level 1 – 30 sec/ exercise with no rest</b>
--

SPEED: 11-12	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May
25 m Front flutter kick under 22 sec	<input checked="" type="checkbox"/>	club	club	club
25 m Propeller under 25 sec	<input checked="" type="checkbox"/>	club	club	club
Front crawl: 25m under 20 sec	<input checked="" type="checkbox"/>	club	club	club

BASIC TRANSITIONS: 11-12		Group picked prior to competition		Nov/ Dec	Jan/ Feb	Feb/ March	April/ May
Group 1	Group 2	Group 3	Group 4				
<input checked="" type="checkbox"/> 1 <sup>st</sup> half ballet leg	<input checked="" type="checkbox"/> 1 <sup>st</sup> half barracuda	<input checked="" type="checkbox"/> 1 <sup>st</sup> half kip	<input checked="" type="checkbox"/> 1 <sup>st</sup> half water				
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half barracuda	(to pike)	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half	drop				
(from pike)	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half ballet leg	swordfish	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half swan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> 1 <sup>st</sup> half ballerina	<input checked="" type="checkbox"/> 1 <sup>st</sup> half walkover	<input checked="" type="checkbox"/> 1 <sup>st</sup> half swan	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half kip				
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half walkover	back	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half water	<input checked="" type="checkbox"/> 1 <sup>st</sup> half				
back	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half ballerina	drop	swordfish				

FIGURES: 11-12		Optional group picked prior to competition		Nov/ Dec	Jan/ Feb	Feb/ March	April/ May
Compulsory	Group 1	Group 2	Group 3				
106 Straight Ballet Leg (new)	420 Walkover back	311 Kip	226 Swan (new)			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
301 Barracuda	324 Ballerina	401 Swordfish	363 Water Drop				

\*\*\* Please refer to the FINA Judges and Coaches manuals and the FINA 2017-2021 figure videos for the basic positions, transitions and figures descriptions.



# PSO-NSO Skills Protocol 2017-2018



BAL = Balance FLEX = flexibility STRG = strength CORE = core SPD = speed

SKILLS: 11-12	TRAIN TO TRAIN	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
Land: to be performed as an individual routine						
BAL	1. Tripod headstand	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	2. Standing Back Pike (Barracuda Set-up)	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	3. 90deg Back pike	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	4. Bridge <b>OR</b> option: Prone Back Extension	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
SPD	5. Ballet Leg Speed Skill R/L	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG	6. V-sit: 10 repetitions	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG/FLEX	7. Prone shoulder hyper flexion w dowel	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG	8. Push-up: 10 repetitions	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	9. Needle R/L	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	10. Ariana rotation	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>

\* Toes Flexion & Ankle PF (plantarflexion) to be assessed within above skills

## CORE: Level 1 – 30 sec/ exercise with no rest

SPEED	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
25m Front flutter kick: under 20 sec	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
25m Propeller: under 22 sec	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
STAMINA	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
100m IM:	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> Espoir: 200IM
Synchro Specific Swim:	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
50m					<input checked="" type="checkbox"/>

BASIC TRANSITIONS	Group picked prior to competition				Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June ESPOIR
Group 1	Group 2	Group 3	Group 4						
<input checked="" type="checkbox"/> 1 <sup>st</sup> half ballet leg	<input checked="" type="checkbox"/> 1 <sup>st</sup> half barracuda (to pike)	<input checked="" type="checkbox"/> 1 <sup>st</sup> half kip	<input checked="" type="checkbox"/> 1 <sup>st</sup> half water drop						
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half barracuda (from pike)	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half ballet leg	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half swordfish	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half swan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> 1 <sup>st</sup> half ballerina	<input checked="" type="checkbox"/> 1 <sup>st</sup> half walkover back	<input checked="" type="checkbox"/> 1 <sup>st</sup> half swan	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half kip						
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half walkover back	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half ballerina	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half water drop	<input checked="" type="checkbox"/> 1 <sup>st</sup> half swordfish						
FIGURES:	Optional group picked prior to competition				Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
Compulsory	Group 1	Group 2	Group 3						
106 Straight Ballet Leg (new)	420 Walkover back	311 Kip	226 Swan (new)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
301 Barracuda	327 Ballerina	401 Swordfish	363 Water Drop				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



# PSO-NSO Skills Protocol 2017-2018



## Breakdown of transitions

Figure	1st half	2nd half
Straight Ballet leg (fig. 106)	to ballet leg position	from ballet leg position
Barracuda (fig. 301)	to pack pike position	from back pike position
Walkover Back (fig. 420)	to split position	from split position
Ballerina (fig. 327)	to submerged flamingo position	from submerged double ballet leg position
Kip (fig. 311)	to vertical position	from inverted tuck position
Swordfish (fig. 401)	to bent knee surface arch position	from bent knee surface arch position
Swan (fig. 226)	to knight position	from knight position
Waterdrop (fig. 363)	to bent knee position	from bent knee position



# PSO-NSO Skills Protocol 2017-2018



## Learn to Train 11-12 / Train to Train (phase 1) 11-12

*The following skills are to be performed in a skills routine \* or individual stations (as per provincial implementation).*

*\* one skill following another with no pause in transitioning from one skill to another.*

### 1. Tripod Head Stand

- Athletes start in a 4 pt. stance on the “X” on their yoga mat
- After the signal to start, athlete assumes modified tripod head stand position: use hands/ arms and top of head as the base, also referred to as a yoga tripod headstand OR head on the floor (may have a small mat) with hands on the floor, elbows at 90°. Take 1 full 8 count to set-up. Athlete gets 3 attempts to get set.
- Vertical alignment of ears, shoulder joint, hip joint, and ankle joint and vertical position is perpendicular to the floor.
- Ribs connected to abdominals (no ribs poking out).
- Legs and feet together, knees and ankles extended as per Canadian Standard.
- Balanced control for 2 full count of 8.
- Athletes return safely and carefully to tuck position, feet on the “X” on the mat/ ground.

### 2. Standing Pike Position (Barracuda set-up)

- From a tuck position with the feet together and on the “X” on their yoga mat and hands on the ground
- Push up the hips to position in one count
- Legs together, fully extended, and perpendicular to the floor
- Body is pressed against legs with stomach, chest and face as close to the body, ideally touching
- Hands should be palm up, behind legs (barracuda set-up)
- Hold for 2 full 8 counts.

### 3. 90° Back Pike Position

- Athletes start position lying on back, your trunk should be flat on the ground, shoulder blades down, arms beside the body.
- Focus on 90° position, legs should be together, perpendicular with the body.
- The knees and ankles should be in full extension as per Canadian standard and the eyes looking at ceiling.
- Maintain the position for 2 full counts of 8.

### 4. Back Bend or Bridge Position (or prone back extension/ cobra)

- Athletes start position lying on back, heels to bum, legs together and hands prepared beside the head under the shoulders.
- Push up to bridge position, keeping feet and hands in starting position. Body should come over hands and legs should extend. The energy should push through the shoulders. Fingers should point to heels and elbows should be extended, but not hyperextended. Feet and legs must be together and extended.
- Cervical spine must remain neutral (natural curve of the spine), with the head hanging straight down (no “turtle” heads).
- Ears aligned with shoulder in vertical alignment.
- Hands must be below the shoulders with arms (determined by upper arm) in a position of 12 o’clock.
- Hold for 2 full 8 counts.

### 5. Ballet Leg Speed Skill

- Assume a plank position on one count. Hands should be directly below shoulders, legs together and extended. Body alignment should be ankles; hips, shoulders, ears and the core should be tight. Elbows are extended, but not hyperextended. Fingers should be pointing forward and eyes looking down. Hold the position for 2 full counts of 8.

### 6. V-Ups

- **Start position = lying flat on back with arms at side and shoulders, fingers and heels in contact with the ground.**
- Raise both legs and torso together (and equally) until body is at a 90° angle at the hips (45° for legs and 45° for torso and head).
- Simultaneously lower legs and torso to start position each repetition and repeat.
- Fingers should maintain contact with the ground throughout the exercise. They may slide forward and backward but not assist.
- Feet and legs must be together and extended.
- Torso should be fully extended (neutral spine, natural curves, should be maintained throughout – no rounding of the back).
- Complete one V-up in 4 counts (2 count to flex & 2 counts to extend).
- Perform up to 10 repetitions with all above-mentioned points attained.



# PSO-NSO Skills Protocol 2017-2018



## 7. Prone shoulder hyper flexion with dowel

- Athletes start position lying on their stomach.
- Arms are extended above their head resting on the floor; inner arms are touching both sides of the head.
- Hands firmly grasp a dowel at a distance equal to the width of the athlete's head.
- Extend the arms as high as possible, raising the dowel off the ground towards the ceiling.
- The distance from the mid-point (marked off prior) of the bottom of the bar to the floor.
- Feet, legs, torso and forehead must remain in contact with the floor.
- Hold extension for 2 full 8 counts.

## 8. Push-ups (Tricep) = 10 repetitions – T2T only

- From plank position, arms should bend at elbow level with elbows staying close to the body. Hands below the shoulder.
- Horizontal alignment of ears, shoulders, hips, knees and ankle joint.
- Legs should remain straight and together, face should remain looking at the ground.
- Body descends close to the floor and remains parallel. Bottom of push-up is when body and upper arm is parallel to the ground. Elbows will have a 90° angle.
- One push up for every four counts, 2 counts to flex and to counts to extend elbows.
- Perform 10 repetitions with all above-mentioned points attained.

## 8. Right Needle followed by Left Needle

(9)

- Athletes will assume a standing pike position with feet on the "X" and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Left ankle full plantar flexion.
- Maintain the needle position for 2 full 8 count set.
- Athletes will assume a standing pike position with feet on the "X" and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Right leg is lifted to the vertical position with hips, knee and foot of the vertical leg square.
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Right ankle full plantar flexion.
- Maintain the needle positions for 2 full 8 count set.

## 9. Ariana Rotation

(10)

- From the pike position, right leg moves backward to assume left split position on centerline with maximum leg extension and hold 2 full counts of 8.
- A rotation is executed to assume the center split. Athletes may use hands and arms to assist with rotations and maintain the center split for 2 full sets of 8 counts.
- A rotation is executed to assume the right split position on the centerline. Athletes may use hands and arms to assist with rotation and hold the position for 2 full set of 8 counts.

## CORE ROUTINE – LEVEL 1 (30sec/ exercise)

PURPOSE	PROTOCOL	SCORING CRITERIA
To develop core strength	<ul style="list-style-type: none"><li>– Athlete performs each exercise in order as listed on the score sheet for 30 seconds with no rest.</li><li>– Please read the document titled "Performance Core" (red background) for all the details regarding each exercise. Clicking each image will lead you to a video demonstration of the exercise</li><li>– Please review the video of all the exercises performed one after another.</li></ul>	Athlete receive one (1) point for each exercise if they complete the exercise for the complete 30 seconds and takes no rest while changing from one exercise to the next.

**Please see GENERAL ATHLETIC and SYNCHRO SCORE SHEET for full details on scoring criteria's**





# PSO-NSO Skills Protocol

## 2017-2018



25m Front Flutter Kick		
PURPOSE	PROTOCOL	SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 25m of the pool in front flutter kick as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Hands must be held together at all times; face may enter the surface water; and athletes may breath when necessary (forward facing ONLY).</li><li>– Time will be recorded when athlete achieve the distance of 25m.</li></ul>	SPEED = Time to complete the task

25m Propellor		
PURPOSE	PROTOCOL	SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 25m of the pool propeller sculling as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start in a back layout position with both hands touching the wall.</li><li>– Starter says: Ready... Whistle</li><li>– Legs must be together and toes must stay at the surface at all times.</li><li>– Face must stay above and out of the water at all times.</li><li>– Time will be recorded when athletes toes pass the 25m marker.</li></ul>	SPEED = Time to complete the task

Coaches are reminded to develop competent propeller technique on short distances, i.e.: 5m, and build up the capacity to complete 25m with perfect technique.

Coaches are asked to use the following guidelines to evaluate each athlete competencies for height, body position and technique in daily training environment:

Extension		Technique	
1	0	toes, knees, hips in full extension	1 0 Flat sculling motion used with wrists bent well back so that the fingertips point to the bottom, palms flat
1	0	shoulders full flexion	1 0 Upper arms stationary
1	0	legs stay together (side by side) for entire 25m	1 0 Elbows are held in the same position, 45degrees from the head, in a "Y" position
Height			
1	0	Top of the foot of foot stay dry (at the surface) for entire 25m	
1	0	face stays dry (at the surface) for entire 25m	
1	0	anterior hips stay dry for entire 25m	

25m Freestyle 100m IM / 200m IM (for T2T phase 1 athletes competing at Espoir Championships)		
PURPOSE	PROTOCOL	SCORING CRITERIA
To assess aerobic stamina  <i>L2T: Athlete's objective is to swim 50m Freestyle as fast as possible</i>  <i>T2T: Athlete's objective is to swim 100m IM as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Athlete completes 2 laps of butterfly, 2 laps of backstroke, 2 laps of breaststroke and 2 laps of freestyle.</li><li>– Flip turn or two-hand touch (as per each stroke) obligatory. At the end of each lap: athletes complete a flip turn or two-hand touch, followed by two foot</li></ul>	SPEED = Time to complete the task

Revised 2017-2018 season



# PSO-NSO Skills Protocol 2017-2018



<i>T2T: Athletes participating at Espoir Championships' objective is to swim 200m IM as fast as possible</i>	<p>push-off (similar to breast-stroke turn in competitive swimming), dolphin or flutter kick during streamline push-off permitted.</p> <ul style="list-style-type: none"><li>– Time will be recorded when athlete completes a one hand touch on side of pool.</li></ul>	
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## 50m SYNCHRO SPECIFIC SWIM (for T2T phase 1 athletes competing at Espoir Championships)

PURPOSE	DEPENDENT MEASURE	REQUIRED EQUIPMENT
<ul style="list-style-type: none"><li>- To assess speed and height of propulsion skills</li><li>- To assess basic positions</li><li>- To assess sculling technique</li></ul>	<p>Time to complete 50m</p> <p>Body position</p> <p>Sculling technique</p> <p>Height</p>	<ul style="list-style-type: none"><li><input type="checkbox"/> Athlete Scoresheet</li><li><input type="checkbox"/> Whistle</li><li><input type="checkbox"/> Metronome set at 135</li><li><input type="checkbox"/> Timers</li><li><input type="checkbox"/> Stopwatch</li></ul>
	PROTOCOL	
	<ul style="list-style-type: none"><li>– Athletes start with left hand on water surface with fingers touching the pool side/ deck, body is vertical, legs in eggbeater</li><li>– Starter says: Ready... Whistle</li><li>– Time will be recorded when athlete completes a one handed touch (after the left eggbeater travel) on side of pool/ deck.</li></ul> <p><u>Skill 1:</u> Right travel <b>Eggbeater kick</b> to 12.5m marker. Left arm horizontal on surface.</p> <p><u>Skill 2:</u> At 12.5m marker, athlete turns ¼ turn, submerges to vertical position under the surface, hold 4 count, rise in 4 counts, assume a <b>Vertical Position</b>, holds for 16 counts, 4 count sink, <i>back tuck somersault</i> up to surface in 4 counts. Athlete must stay in line with the marker at 12.5m.</p> <p><u>Skill 3:</u> <b>Kick-Pull-Kick</b> to the wall.</p> <p><u>Skill 4:</u> Athlete takes a <b>back layout position</b>, toes touching the wall, raises right leg to <b>Ballet Leg position</b> (through sailboat) without travelling and then travel 12.5m while maintaining right <b>Ballet Leg position</b>.</p> <p><u>Skill 5:</u> At 12.5m mark, athlete goes from right ballet leg position to <b>inverted tuck position</b>, hold 4 counts, assumes a <b>Fishtail position (either leg)</b>, holds for 16 counts, completes a back tuck somersault into three <b>Boosts</b> – 1<sup>st</sup> boost: no arms, 2<sup>nd</sup> boost: right arm, 3<sup>rd</sup> boost: left arm directly into a submerged back pike position and completes a <b>Rocket</b>. Athlete completes a back tuck somersault, turns ½ turn underwater and surfaces going immediately into left travel <b>Eggbeater</b>.</p> <p><u>Skill 6:</u> Left travelling <b>Eggbeater kick</b> from 12.5m marker to 25m wall/ bulkhead. Right arm horizontal on surface. Time stops when athlete touches the wall with the left hand.</p>	



# PSO-NSO Skills Protocol 2017-2018



## SCORING CRITERIA FOR 50M SYNCHRO SPECIFIC SWIM

<b>SPEED (bonus points)</b>							
<b>+ 2 pts</b>				If completed under 2min15sec			
<b>Eggbeater (right)</b>				<b>Eggbeater (left)</b>			
<b>Body position</b>		<b>Height</b>		<b>Body position</b>		<b>Height</b>	
1 pt	horizontal arm remains straight and at surface	9.5 pts	Mid bust	1 pt	horizontal arm remains straight and at surface	9.5 pts	Mid bust
1 pt	vertical body perpendicular to water surface	8.5 pts	Arm pit dry	1 pt	vertical body perpendicular to water surface	8.5 pts	Arm pit dry
1 pt	hips under shoulders	6.5 pts	Clavicle dry	1 pt	hips under shoulders	6.5 pts	Clavicle dry
1 pt	Effortless: appears stable with minimal movement	4.5 pts	Mid-neck or lower	1 pt	Effortless: appears stable with minimal movement	4.5 pts	Mid-neck or lower
<b>Ballet Leg</b>				<b>Kick Pull Kick</b>			
<b>Body position</b>		<b>Height</b>		<b>Body position</b>		<b>Height</b>	
1 pt	Surface leg parallel to surface	8.5 pts	Mid thigh	1 pt	Body at 45 angle to surface	9.5 pts	Mid bust
1 pt	Vertical leg 90deg from trunk & perpendicular to surface	7.5 pts	Low thigh (well above knee cap)	1 pt	Timing & sequence of upper & lower movements	8.5 pts	Arm pit dry
1 pt	Alignment of ear, shoulder & hip joint, ankle of horizontal leg	6.5 pts	Above knee cap)	1 pt	Effortless: appears stable with minimal movement	6.5 pts	Clavicle dry
1 pt	Knees and ankles extended	5.5 pts	Knee cap or lower			4.5 pts	Mid-neck or lower
<b>Vertical Position</b>				<b>Fishtail Position (either leg)</b>			
<b>Body position &amp; Sculling</b>		<b>Height</b>		<b>Body position &amp; Sculling</b>		<b>Height</b>	
1 pt	Support scull is used	8.5 pts	Mid thigh or higher	1 pt	Foot of forward leg at the surface	10 pts	Suit with back of horizontal leg dry
1 pt	Body perpendicular to water surface	7.5 pts	Low thigh (well above knee cap)	1 pt	Hip joints are on horizontal line and square	9.5 pts	Upper thigh
1 pt	Full extension of body with legs together	6.5 pts	Above knee cap	1 pt	Support scull is used	8.5 pts	Mid thigh
1 pt	Alignment of ear, shoulder & hip joint, and ankle bone	5.5 pts	Knee cap or lower	1 pt	Alignment of ear, shoulder & hip joint, and ankle bone	7.5 pts	Low thigh (well above knee cap)
1 pt	Full extension of knees and plantar-flexion of ankles			1 pt	Full extension of knees and plantar-flexion of ankles	6.5 pts	Above knee cap or lower
1 pt	16 count hold			1 pt	16 count hold		
<b>Boost</b>				<b>Rocket</b>			
<b>Body position &amp; Timing</b>		<b>Height</b>		<b>Body position &amp; Timing</b>		<b>Height</b>	
1 pt	Vertical alignment of body	8.5 pts	Mid pelvis or lower	1 pt	Alignment of ears, shoulders, hip & ankle at the Vertical Position	9.5 pts	Ribs or higher
1 pt	Rapid rise	7.5 pts	Top of pelvis or higher	1 pt	Rapid rise with no pauses (obvious increase in the speed of action)	8.5 pts	Waist or lower

**VISUAL: Please refer to video on Synchro Canada's YouTube channel**


[https://youtu.be/oG5hjJcfKJo?list=PLI\\_5k-PMxNK2vN6Zw5mini3tXiEY2JmTM](https://youtu.be/oG5hjJcfKJo?list=PLI_5k-PMxNK2vN6Zw5mini3tXiEY2JmTM)

Revised 2017-2018 season



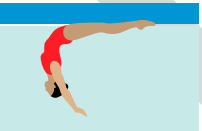
# PSO-NSO Skills Protocol 2017-2018



LATERAL SPLIT (for T2T phase 1 athletes competing at Espoir Championships)			
PURPOSE		VISUAL	PROTOCOL
To assess suppleness			<ol style="list-style-type: none"> <li>1. This skill will be evaluated during the 11-12 figure competition at Espoir Championships.</li> <li>2. Athletes will be evaluated as per the evaluation checklist by an evaluator assigned by Synchro Canada.</li> </ol>

## SCORING CRITERIA

1 point	Full Extension of the legs throughout as per Canadian Standard
1 point	Vertical alignment of the body
1 point	Horizontal alignment of the legs
1 point	Legs are dry at the surface.
1 point	Hips square
1 point	Back leg knee cap facing the ceiling
4 point	Complete FLAT split

SURFACE ARCH (for T2T phase 1 athletes competing at Espoir Championships)			
PURPOSE		VISUAL	PROTOCOL
To assess suppleness			<ol style="list-style-type: none"> <li>1. This skill will be evaluated during the 11-12 figure competition at Espoir Championships.</li> <li>2. Athletes will be evaluated as per the evaluation checklist by an evaluator assigned by Synchro Canada.</li> </ol>

## SCORING CRITERIA

1 point	Hip joints on a horizontal line
1 point	Shoulder joints on a horizontal line
1 point	Hips and shoulder joints 'square' & parallel to one another
1 point	Head (ears specifically) in line with shoulders
1 point	Full extension of knees and ankles
1 point	Thighs and feet at the surface
1 point	Hips 0-10° under the surface



## GENERAL ATHLETIC and SYNCHRO SKILLS SCORE SHEET



## LEARN TO TRAIN (stage 3) : 11-12 yrs old

START #: \_\_\_\_\_

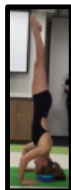
ATHLETE NAME: \_\_\_\_\_ AGE/YR: \_\_\_\_\_

Circle the deductions/ score for each category. Points possible are noted for each event

**LAND SKILLS (74 pts possible) - TOTAL SCORE****1 TRIPOD HEADSTAND**

- Head (ears specifically), shoulders, hips and ankles aligned 1 0
- Vertical body position is perpendicular to floor 1 0
- Ribs drawn into abdominals ; Abdominals & Glutes engaged 1 0
- Knees fully extended & Ankles fully plantar flexed (as per Canadian standard) 1 0

Total out of 4 :

**2 STANDING BACK PIKE POSITION (Barracuda set-up)**

- Legs together 1 0
- Knees fully extended as per Canadian standard 1 0
- Stomach, chest and face touching legs 1 0

Total out of 3 :

**3 90 DEGREE BACK PIKE POSITION**

- Legs at 90 angle perpendicular with the body. 1 0
- Legs together 1 0
- Knees fully extended & Ankles fully plantar flexed (as per Canadian standard) 1 0

Total out of 3 :

**4 BACK BEND or BRIDGE**

- Legs in full extension and together 1 0
- Ears aligned with shoulder in vertical alignment 1 0
- Elbows in full extension (no hyperextension) with upper arm in 12 o'clock position 1 0
- Hold for 2 counts of 8 1 0

Total out of 4 :

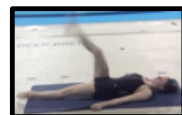
**5 BALLET LEG SPEED SKILL (lower segment)****Right ballet leg**

- Horizontal knee & ankle extension throughout as per Canadian standard 1 0
- Vertical knee achieves full extension with each repetition 1 0
- Completes 1 repetition per count for 2 full counts of 8 1 0

**Left ballet leg**

- Horizontal knee & ankle extension throughout as per Canadian standard 1 0
- Vertical knee achieves full extension with each repetition 1 0
- Completes 1 repetition per count for 2 full counts of 8 1 0

Total out of 6 :

**6 V-UPS**

- Legs in full extension and together 1 0
- 90 degree flexed position attained each repetition 1 0
- Torso (hips, shoulder, head) aligned & fully extended. 1 0
- 10 repetitions are completed with all competencies accomplished 1 0

Total out of 4 :

**7 PRONE SHOULDER HYPER FLEXION WITH DOWEL**

- > 60 cm Stick to floor 5
- 50 cm - 59 cm 4
- 40 cm - 49 cm 3
- 30 cm - 39 cm 2
- 20 cm - 29 cm 1
- <19 cm 0

Total out of 5 :

**8 NEEDLE - LEFT**

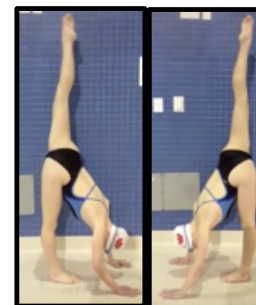
- Left Leg is at 12 o'clock 4 0
- Right leg is at 6 o'clock 1 0
- Both knees and top ankle are fully extended as per Canadian standard 1 0
- Hold for 2 full counts of 8 1 0

Total out of 7 :

**NEEDLE - RIGHT**

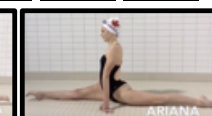
- Right Leg is at 12 o'clock 4 0
- Left leg is at 6 o'clock 1 0
- Both knees and top ankle are fully extended as per Canadian standard 1 0
- Hold for 2 full counts of 8 1 0

Total out of 7 :

**9 ARIANA ROTATION**

- |   | L   | C   | R   |
|---|-----|-----|-----|
| Vertical alignment of ears, shoulders and torso             | 1 0 | 1 0 | 1 0 |
| Hips and shoulders square                                   | 1 0 | 1 0 | 1 0 |
| Extension of both knees and ankles as per Canadian standard | 1 0 | 1 0 | 1 0 |
| Complete FLAT split   | 4 0 | 4 0 | 4 0 |

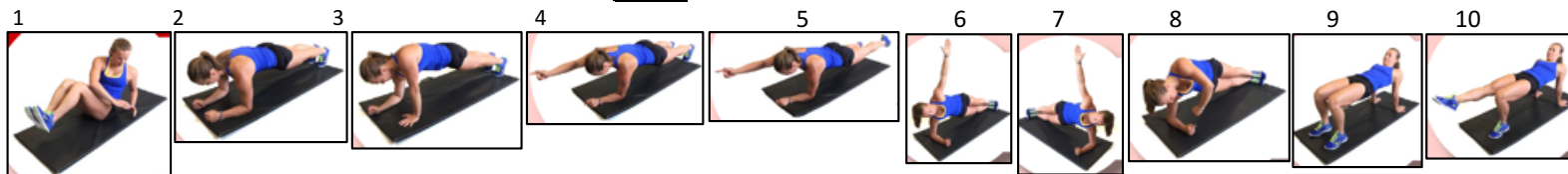
Total out of 7 (for each split) :



**10 CORE ROUTINE: complete Level 1 - 30sec each exercise with no rest**

- |   |   |   |
|---|---|---|
| 1 - Sky-Centre-Side-Centre (slow pace) for 30 sec   | 1 | 0 |
| 2 - Front Plank for 30 sec                          | 1 | 0 |
| 3 - UP-UP-DOWN-DOWN (slow pace) for 30 sec          | 1 | 0 |
| 4 - Pointers (slow pace) for 30 sec                 | 1 | 0 |
| 5 - Superman for 30 sec                             | 1 | 0 |
| 6 - Side Plank Right for 30 sec                     | 1 | 0 |
| 7 - Side Plank Left for 30 sec                      | 1 | 0 |
| 8 - Side Planks Rollovers for 30 sec                | 1 | 0 |
| 9 - Table Top for 30 sec                            | 1 | 0 |
| 10 - Table Top Russian Kicks (slow pace) for 30 sec | 1 | 0 |

Total out of 10 :



**25 m FRONT FLUTTER**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**25 m FREESTYLE**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**25m PROPELLOR/ TORPEDO**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**Checklist for coaches to use in training**

- |  |   |   |
|--|---|---|
| Flat sculling motion used with wrists bent well back | 1 | 0 |
| Upper arms stationary                                | 1 | 0 |
| Elbows are held at 45deg in "Y" position             | 1 | 0 |

**Extension**

- |  |   |   |
|--|---|---|
| toes, knees, hips in full extension              | 1 | 0 |
| shoulders full flexion                           | 1 | 0 |
| legs stay together (side by side) for entire 25m | 1 | 0 |

**Height**

- |   |   |   |
|---|---|---|
| dorsum of foot stay dry (at the surface) for entire 25m | 1 | 0 |
| face stays dry (at the surface) for entire 25m          | 1 | 0 |
| anterior hips stay dry for entire 25m                   | 1 | 0 |



## GENERAL ATHLETIC and SYNCHRO SKILLS SCORE SHEET



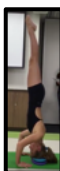
## TRAIN TO TRAIN (stage 4) : 11-12 yrs old

START #: \_\_\_\_\_

ATHLETE NAME: \_\_\_\_\_

AGE/YR: \_\_\_\_\_

Circle the deductions/ score for each category. Points possible are noted for each event

**LAND SKILLS (78 pts possible) - TOTAL SCORE****1 TRIPOD HEADSTAND**

- Head (ears specifically), shoulders, hips and ankles aligned 1 0
- Vertical body position is perpendicular to floor 1 0
- Ribs drawn into abdominals ; Abdominals & Glutes engaged 1 0
- Knees fully extended & Ankles fully plantar flexed (as per Canadian standard) 1 0

Total out of 4 :

**2 STANDING BACK PIKE POSITION (Barracuda set-up)**

- Legs together 1 0
- Knees fully extended as per Canadian standard 1 0
- Stomach, chest and face touching legs 1 0

Total out of 3 :

**3 90 DEGREE BACK PIKE POSITION**

- Legs at 90 angle perpendicular with the body. 1 0
- Legs together 1 0
- Knees fully extended & Ankles fully plantar flexed (as per Canadian standard) 1 0

Total out of 3 :

**4 BACK BEND or BRIDGE**

- Legs in full extension and together 1 0
- Ears aligned with shoulder in vertical alignment 1 0
- Elbows in full extension (no hyperextension) with Upper arm in 12 o'clock position 1 0
- Hold for 2 counts of 8 1 0

Total out of 4 :

**5 BALLET LEG SPEED SKILL (lower segment)**

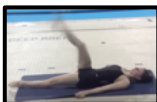
Right ballet leg

- Horizontal knee & ankle extension throughout as per Canadian standard 1 0
- Vertical knee achieves full extension with each repetition 1 0
- Completes 1 repetition per count for 2 full counts of 8 1 0

Left ballet leg

- Horizontal knee & ankle extension throughout as per Canadian standard 1 0
- Vertical knee achieves full extension with each repetition 1 0
- Completes 1 repetition per count for 2 full counts of 8 1 0

Total out of 6 :

**6 V-UPS**

- Legs in full extension and together 1 0
- 90 degree flexed position attained each repetition 1 0
- Torso (hips, shoulder, head) aligned & fully extended. 1 0
- 10 repetitions are completed with all competencies accomplished 1 0

Total out of 4 :

**7 PRONE SHOULDER HYPER FLEXION WITH DOWEL**

distance from dowel to floor

- > 60 cm Stick to floor 5
- 50 cm - 59 cm 4
- 40 cm - 49 cm 3
- 30 cm - 39 cm 2
- 20 cm - 29 cm 1
- <19 cm 0

Total out of 5 :

**8 PUSH-UP (Tricep)**

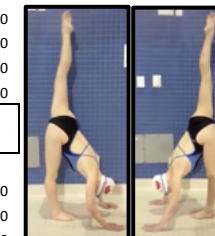
- Ears, shoulders, hips, knees, ankles in horizontal line 1 0
- Body descends close to floor and remains parallel 1 0
- Legs in full extension and together 1 0
- 10 repetitions are completed with all competencies accomplished 1 0

Total out of 4 :

**9 NEEDLE - RIGHT**

- Left Leg is at 12 o'clock 4 0
- Right leg is at 6 o'clock 1 0
- Both knees and top ankle are fully extended as per Canadian standard 1 0
- Hold for 2 full counts of 8 1 0

Total out of 7 :

**NEEDLE - LEFT**

- Right Leg is at 12 o'clock 4 0
- Left leg is at 6 o'clock 1 0
- Both knees and top ankle are fully extended as per Canadian standard 1 0
- Hold for 2 full counts of 8 1 0

Total out of 7 :

**10 ARIANA ROTATION**

- |   | L   | C   | R   |
|---|-----|-----|-----|
| Vertical alignment of ears, shoulders and torso             | 1 0 | 1 0 | 1 0 |
| Hips and shoulders square                                   | 1 0 | 1 0 | 1 0 |
| Extension of both knees and ankles as per Canadian standard | 1 0 | 1 0 | 1 0 |
| Complete FLAT split   | 4 0 | 4 0 | 4 0 |

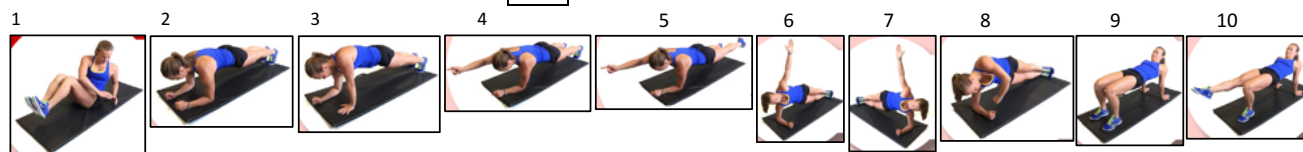
Total out of 7 (for each split) :



**11 CORE ROUTINE: complete Level 1 - 30sec each exercise with no rest**

- |   |   |   |
|---|---|---|
| 1 - Sky-Centre-Side-Centre (slow pace) for 30 sec   | 1 | 0 |
| 2 - Front Plank for 30 sec                          | 1 | 0 |
| 3 - UP-UP-DOWN-DOWN (slow pace) for 30 sec          | 1 | 0 |
| 4 - Pointers (slow pace) for 30 sec                 | 1 | 0 |
| 5 - Superman for 30 sec                             | 1 | 0 |
| 6 - Side Plank Right for 30 sec                     | 1 | 0 |
| 7 - Side Plank Left for 30 sec                      | 1 | 0 |
| 8 - Side Planks Rollovers for 30 sec                | 1 | 0 |
| 9 - Table Top for 30 sec                            | 1 | 0 |
| 10 - Table Top Russian Kicks (slow pace) for 30 sec | 1 | 0 |

Total out of 10 :



**25 m FRONT FLUTTER**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**100m IM / OR 200M IM (athletes participating at Espoir)**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**25m PROPELLOR/ TORPEDO**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**Checklist for coaches to use in training**

- |  |   |   |
|--|---|---|
| Flat sculling motion used with wrists bent well back | 1 | 0 |
| Upper arms stationary                                | 1 | 0 |
| Elbows are held at 45deg in "Y" position             | 1 | 0 |

**Extension**

- |  |   |   |
|--|---|---|
| toes, knees, hips in full extension              | 1 | 0 |
| shoulders full flexion                           | 1 | 0 |
| legs stay together (side by side) for entire 25m | 1 | 0 |

**Height**

- |   |   |   |
|---|---|---|
| dorsum of foot stay dry (at the surface) for entire 25m | 1 | 0 |
| face stays dry (at the surface) for entire 25m          | 1 | 0 |
| anterior hips stay dry for entire 25m                   | 1 | 0 |





# SYNCHRO SPECIFIC SWIM SCORE SHEET



TRAIN TO TRAIN : 11-12 yrs old

START #: \_\_\_\_\_

ATHLETE NAME: \_\_\_\_\_ AGE/YR: \_\_\_\_\_

Circle the deductions/ score for each category. Points possible are noted for each event

50m SYNCHRO SPECIFIC SWIM (104.5 pts possible)



Time bonus: if under 2min15sec 2 0

1	<b>Eggbeater (right)</b>	
	<b>Body position</b>	
	horizontal arm remains straight and at surface	1 0
	vertical body perpendicular to water surface	1 0
	hips under shoulders	1 0
	Effortless: appears stable with minimal movement	1 0
	<b>Height</b>	
	Mid bust	9.5
	Arm pit dry	8.5
	Clavicle dry	6.5
	Mid-neck or lower	4.5
2	<b>Vertical Position</b>	
	<b>Body position &amp; Sculling</b>	
	Support scull is used	1 0
	Body perpendicular to water surface	1 0
	Full extension of body with legs together	1 0
	Alignment of ear, shoulder & hip joint, and ankle bone	1 0
	Extension of both knees and ankles (as per Canadian standard)	1 0
	16 count hold	1 0
	<b>Height</b>	
	Mid thigh	8.5
	Low thigh (well above knee cap)	7.5
	Above knee cap	6.5
	Knee cap or lower	5.5
3	<b>Kick Pull Kick</b>	
	<b>Body position</b>	
	Body at 45 angle to surface	1 0
	Timing & Sequence of upper & lower movements	1 0
	Effortless: appears stable with minimal movement	1 0
	<b>Height</b>	
	Mid bust	9.5
	Arm pit dry	8.5
	Clavicle dry	6.5
	Mid-neck or lower	4.5
4	<b>Ballet Leg</b>	
	<b>Body position</b>	
	Surface leg parallel to surface	1 0
	Vertical leg 90deg from trunk & perpendicular to surface	1 0
	Alignment of ear, shoulder & hip joint, ankle of horizontal leg	1 0
	Extension of both knees and ankles (as per Canadian standard)	1 0
	<b>Height</b>	
	Mid thigh	8.5
	Low thigh (well above knee cap)	7.5
	Above knee cap	6.5
	Knee cap or lower	5.5

5	<b>Fishtail Position (either leg)</b>	
	<b>Body position &amp; Sculling</b>	
	Foot of forward leg at the surface	1 0
	Hip joints are on horizontal line and square	1 0
	Support scull is used	1 0
	Alignment of ear, shoulder & hip joint, and ankle bone	1 0
	Extension of both knees and ankles (as per Canadian standard)	1 0
	16 count hold	1 0
	<b>Height</b>	
	Suit with back of horizontal leg dry	10
	Upper thigh	9.5
	Mid thigh	8.5
	Low thigh (well above knee cap)	7.5
	Above knee cap or lower	6.5
6	<b>Boost</b>	
	<b>Body position &amp; Timing</b>	
	Vertical alignment of body	1 0
	Rapid rise	1 0
	<b>Height</b>	
	Mid pelvis or lower	8.5
	Top of pelvis or higher	7.5
7	<b>Rocket</b>	
	<b>Body position &amp; Timing</b>	
	Alignment of ears, shoulders, hip & ankle at the Vertical Position	1 0
	Rapid rise with no pauses (obvious increase in the speed of action)	1 0
	<b>Height</b>	
	Ribs or higher	9.5
	Waist or lower	8.5
8	<b>Eggbeater (left)</b>	
	<b>Body position &amp; Height</b>	
	horizontal arm remains straight and at surface	1 0
	vertical body	1 0
	hips under shoulders	1 0
	Effortless: appears stable with minimal movement	1 0
	<b>Height</b>	
	Mid bust	9.5
	Arm pit dry	8.5
	Clavicle dry	6.5
	Mid-neck or lower	4.5



PSO-NSO Skills Protocol  
2017-2018



# Train to Train (Stage 4)

## 13-15 Years

*General Athletic & Synchro Skills*



# PSO-NSO Skills Protocol 2017-2018



BAL = Balance FLEX = flexibility STRG = strength CORE = core SPD = speed

SKILLS: 13-15	TRAIN TO TRAIN	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
	<i>Land: to be performed as an individual routine</i>					
BAL	1. Tripod headstand with lateral split R & L	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	2. Standing Back Pike (Barracuda Set-up)	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	3. Back bend / Bridge <b>OR</b> option: Prone Back Extension	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
SPD	4. Ballet Leg Speed Skill R/L	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG	5. V-sit Hold	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG/FLEX	6. Prone shoulder hyper flexion w dowel	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG	7. Push-up: 12 repetitions	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	8. Needle R/L	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
FLEX	9. Ariana rotation	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>

\* Toes Flexion & Ankle PF (plantarflexion) to be assessed within above skills

## CORE: Level 2 – 30 sec/ exercise with no rest

SPEED:	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
25m Front flutter kick: under 20 sec	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
25m Propeller: under 22 sec	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STAMINA					
200m IM: as per FINA rules	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

BASIC TRANSITIONS	Group picked prior to competition			Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June ESPOIR
Group 1	Group 2	Group 3	Group 4					
<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Compulsories	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 1 figures	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 3 figures	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 4 figures	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Gr. 1 figures	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Compulsories	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Gr. 4 figures	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half of Gr. 3 figures					

FIGURES:	Optional group picked prior to competition	Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
National Stream	FINA 13-15 Figures as per 2017-2021 FINA Rulebook		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provincial Stream	FINA 13-15 Figures as per 2017-2018 Synchro Canada Rulebook		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

\* the headstands with lateral split can be performed in a figure trainer if required



# PSO-NSO Skills Protocol 2017-2018



## Train to Train (phase 2) 13-15

*The following skills are to be performed in a skills routine \* or individual stations (as per provincial implementation).*

*\* one skill following another with no pause in transitioning from one skill to another.*

### 1. Tripod Head Stand with Lateral split R/L

- Athletes start in a 4 pt. stance on the “X” on their yoga mat
- After the signal to start, athlete assumes modified tripod head stand position with right lateral split: use hands/ arms and top of head as the base, also referred to as a yoga tripod headstand OR head on the floor (may have a small mat) with hands on the floor, elbows at 90°. Take 1 full 8 count to set-up. Athletes get 3 attempts to get set. After 1 full 8 count, athletes switch legs to complete left lateral split (use 1 full count of 8 to complete the switch). Athletes hold left split 1 full 8 count.
- Vertical alignment or ears, shoulder joint, hip joint, and ankle joint and vertical position is perpendicular to the floor.
- Ribs connected to abdominals (no ribs poking out).
- Knees and ankles extended as per Canadian Standard.
- Balanced control for 3 full count of 8.
- Athletes return safely and carefully to tuck position, feet on the “X” on the mat/ ground.

### 2. Standing Pike Position (Barracuda set-up)

- From a tuck position with the feet together and on the “X” on their yoga mat and hands on the ground
- Push up the hips to position in one count
- Legs together, fully extended, and perpendicular to the floor
- Body is pressed against legs with stomach, chest and face as close to the body, ideally touching
- Hands should be palm up, behind legs (barracuda set-up)
- Hold for 2 full 8 counts.

### 3. Back Bend or Bridge Position (or prone back extension/ cobra)

- Athletes start position lying on back, heels to bum, legs together and hands prepared beside the head under the shoulders.
- Push up to bridge position, keeping feet and hands in starting position. Body should come over hands and legs should extend. The energy should push through the shoulders. Fingers should point to heels and elbows should be extended, but not hyperextended. Feet and legs must be together and extended.
- Cervical spine must remain neutral (natural curve of the spine), with the head hanging straight down (no “turtle” heads).
- Ears aligned with shoulder in vertical alignment.
- Hands must be below the shoulders with arms (determined by upper arm) in a position of 12 o'clock.
- Hold for 2 full 8 counts.

### 4. Ballet Leg Speed Skill R/L

- Athletes start in a left bent knee back layout position, right knees and ankles in full extension
- At count 1, extend to a ballet leg, HIT top of ballet leg on each count for 2 full 8 counts
- Athletes returns left leg to back layout position, and assumes a right bent knee back layout position, left knees and ankles in full extension
- At count 1, extend to a ballet leg, HIT top ballet leg position on each count for 2 full 8 counts
- For full points to be awarded, left & right knee must achieve full extension and be synchronized to the counts.

### 5. V-sit Hold

- **Start position = lying flat on back with hands holding a dowel resting across the top of the pelvis.**
- Raise both legs and torso together (and equally) until body is at a 90° angle at the hips (45° for legs and 45° for torso and head).
- Dowel rests on legs at knee level.
- Feet and legs must be together and extended.
- Torso should be fully extended (neutral spine, natural curves, should be maintained throughout – no rounding of the back).
- Hold the position for 2 full counts of 8.

### 6. Prone shoulder hyper flexion with dowel

- Athletes start position lying on their stomach.
- Arms are extended above their head resting on the floor; inner arms are touching both sides of the head.
- Hands firmly grasp a dowel at a distance equal to the width of the athlete's head.
- Extend the arms as high as possible, raising the dowel off the ground towards the ceiling.
- The distance from the mid-point (marked off prior) of the bottom of the bar to the floor.
- Feet, legs, torso and forehead must remain in contact with the floor.
- Hold extension for 2 full 8 counts.



# PSO-NSO Skills Protocol 2017-2018



## 7. Push-ups (Tricep) = 12 repetitions

- From plank position, arms should bend at elbow level with elbows staying close to the body. Hands below the shoulder.
- Horizontal alignment of ears, shoulders, hips, knees and ankle joint.
- Legs should remain straight and together, face should remain looking at the ground.
- Body descends close to the floor and remains parallel. Bottom of push-up is when body and upper arm is parallel to the ground. Elbows will have a 90° angle.
- One push up for every four counts, 2 counts to flex and to counts to extend elbows.
- Perform 12 repetitions with all above-mentioned points attained.

## 8. Right Needle followed by Left Needle

- Athletes will assume a standing pike position with feet on the “X” and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Left leg is lifted to the vertical position with hips, knee and foot of the vertical leg square.
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Left ankle full plantar flexion.
- Maintain the needle position for 2 full 8 count set.
- Athletes will assume a standing pike position with feet on the “X” and palms on the ground.
- Torso is straight and in line with the head. The chest and head are close to the standing leg as possible, at a position of 5/ 7 o'clock (in comparison to a clock).
- Right leg is lifted to the vertical position with hips, knee and foot of the vertical leg square.
- Minimal turnout is allowed (1 o'clock or less).
- Both knees are fully extended. Right ankle full plantar flexion.
- Maintain the needle positions for 2 full 8 count set.

## 9. Ariana Rotation

- From the pike position, right leg moves backward to assume left split position on centerline with maximum leg extension and hold 2 full counts of 8.
- A rotation is executed to assume the center split. Athletes may use hands and arms to assist with rotations and maintain the center split for 2 full sets of 8 counts.
- A rotation is executed to assume the right split position on the centerline. Athletes may use hands and arms to assist with rotation and hold the position for 2 full set of 8 counts.

## 10. CORE ROUTINE – LEVEL 2 (30sec/ exercise)

PURPOSE	PROTOCOL	SCORING CRITERIA
To develop core strength	<ul style="list-style-type: none"><li>– Athlete performs each exercise in order as listed on the score sheet for 30 seconds with no rest.</li><li>– Please read the document titled “Performance Core” (red background) for all the details regarding each exercise. Clicking each image will lead you to a video demonstration of the exercise</li><li>– Please review the video of all the exercises performed one after another.</li></ul>	Athlete receive one (1) point for each exercise if they complete the exercise for the complete 30 seconds and takes no rest while changing from one exercise to the next.

**Please see GENERAL ATHLETIC and SYNCHRO SCORE SHEET for full details on scoring criteria's**



# PSO-NSO Skills Protocol

## 2017-2018



25m Front Flutter Kick			
PURPOSE	PROTOCOL		SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 25m of the pool in front flutter kick under 20 seconds</i>	<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Hands must be held together at all times; face may enter the surface water; and athletes may breath when necessary (forward facing ONLY).</li><li>– Time will be recorded when athlete achieve the distance of 25m.</li></ul>		SPEED = Time to complete the task

25m Propellor			
PURPOSE	PROTOCOL		SCORING CRITERIA
To assess speed  <i>Athlete's objective is to swim 25m of the pool propeller sculling under 20 seconds</i>	<ul style="list-style-type: none"><li>– Athletes start in a back layout position with both hands touching the wall.</li><li>– Starter says: Ready... Whistle</li><li>– Legs must be together and toes must stay at the surface at all times.</li><li>– Face must stay above and out of the water at all times.</li><li>– Time will be recorded when athletes toes pass the 25m marker.</li></ul>		SPEED = Time to complete the task

Coaches are reminded to develop competent propeller technique on short distances, i.e.: 5m, and build up the capacity to complete 25m with perfect technique.

Coaches are asked to use the following guidelines to evaluate each athlete competencies for height, body position and technique in daily training environment:

Extension			Technique		
1	0	toes, knees, hips in full extension	1	0	Flat sculling motion used with wrists bent well back so that the fingertips point to the bottom, palms flat
1	0	shoulders full flexion	1	0	Upper arms stationary
1	0	legs stay together (side by side) for entire 25m	1	0	Elbows are held in the same position, 45degrees from the head, in a "Y" position
Height					
1	0	Top of the foot of foot stay dry (at the surface) for entire 25m			
1	0	face stays dry (at the surface) for entire 25m			
1	0	anterior hips stay dry for entire 25m			


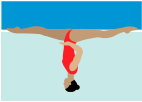
200m IM			
PURPOSE	PROTOCOL		SCORING CRITERIA
To assess aerobic stamina  <i>Athlete's objective is to swim 200m IM as fast as possible</i>	<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Athlete completes 2 laps of butterfly, 2 laps of backstroke, 2 laps of breaststroke and 2 laps of freestyle.</li><li>– Flip turn or two-hand touch (as per each stroke) obligatory. At the end of each lap: athletes complete a flip turn or two-hand touch, followed by two foot push-off (similar to breast-stroke turn in competitive swimming), dolphin or flutter kick during streamline push-off permitted.</li><li>– Time will be recorded when athlete completes a one hand touch on side of pool.</li></ul>		SPEED = Time to complete the task



# PSO-NSO Skills Protocol 2017-2018




## LATERAL SPLIT *(for athletes competing in figure competitions)*

PURPOSE	VISUAL	PROTOCOL
To assess suppleness	 	<ol style="list-style-type: none"> <li>1. This skill will be evaluated during the 13-15 figure competitions, ex: at Qualifier &amp; Espoir Championships.</li> <li>2. Athletes will be evaluated as per the evaluation checklist by an evaluator assigned by Synchro Canada.</li> </ol>

### SCORING CRITERIA

1 point	Full Extension of the legs throughout as per Canadian Standard
1 point	Vertical alignment of the body
1 point	Horizontal alignment of the legs
1 point	Legs are dry at the surface.
1 point	Hips square
1 point	Back leg knee cap facing the ceiling
4 point	Complete FLAT split

## SURFACE ARCH *(for athletes competing in figure competitions)*

PURPOSE	VISUAL	PROTOCOL
To assess suppleness		<ol style="list-style-type: none"> <li>1. This skill will be evaluated during the 13-15 figure competitions, ex: at Qualifier &amp; Espoir Championships.</li> <li>2. Athletes will be evaluated as per the evaluation checklist by an evaluator assigned by Synchro Canada.</li> </ol>

### SCORING CRITERIA

1 point	Hip joints on a horizontal line
1 point	Shoulder joints on a horizontal line
1 point	Hips and shoulder joints 'square' & parallel to one another
1 point	Head (ears specifically) in line with shoulders
1 point	Full extension of knees and ankles
1 point	Thighs and feet at the surface
1 point	Hips 0-10° under the surface





## GENERAL ATHLETIC and SYNCHRO SKILLS SCORE SHEET



## TRAIN TO TRAIN (stage 4) : 13-15 yrs old

START #: \_\_\_\_\_

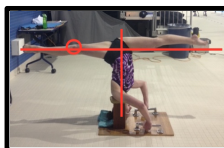
ATHLETE NAME: \_\_\_\_\_

AGE/YR: \_\_\_\_\_

Circle the deductions/ score for each category. Points possible are noted for each event

LAND SKILLS (88 pts possible) - TOTAL SCORE1 **TRIPOD HEADSTAND SPLIT RIGHT & LEFT**

	<b>RIGHT</b>	
Head (ears specifically), shoulders and hips aligned	1	0
Torso is perpendicular to floor	1	0
Hips and shoulders square	1	0
Extension of both knees and ankles as per Canadian standard	1	0
Complete FLAT split	4	0
<b>Total out of 8 :</b>		



	<b>LEFT</b>	
Head (ears specifically), shoulders and hips aligned	1	0
Torso is perpendicular to floor	1	0
Hips and shoulders square	1	0
Extension of both knees and ankles as per Canadian standard	1	0
Complete FLAT split	4	0
<b>Total out of 8 :</b>		

2 **STANDING BACK PIKE POSITION (Barracuda set-up)**

Legs together	1	0
Knees fully extended as per Canadian standard	1	0
Stomach, chest and face touching legs	1	0
Hands palm up, behind legs (barracuda set-up)	1	0
<b>Total out of 4 :</b>		

3 **BACK BEND or BRIDGE**

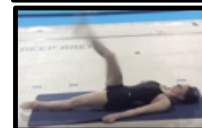
Legs in full extension and together	1	0
Ears aligned with shoulder in vertical alignment	1	0
Elbows in full extension (no hyperextension) with Upper arm in 12 o'clock position	1	0
Hold for 2 counts of 8	1	0
<b>Total out of 4 :</b>		

4 **BALLET LEG SPEED SKILL (lower segment)**

<b>Right ballet leg</b>		
Horizontal knee & ankle extension throughout as per Canadian standard	1	0
Vertical knee achieves full extension with each repetition	1	0
Completes 1 repetition per count for 2 full counts of 8	1	0



<b>Left ballet leg</b>		
Horizontal knee & ankle extension throughout as per Canadian standard	1	0
Vertical knee achieves full extension with each repetition	1	0
Completes 1 repetition per count for 2 full counts of 8	1	0

5 **V-SIT - HOLD WITH DOWEL**

Legs in full extension and together	1	0
90 degree flexed position at the hips maintained	1	0
Torso (hips, shoulder, head) aligned & fully extended.	1	0
Hold for 2 full counts of 8	1	0

**Total out of 4 :**6 **PRONE SHOULDER HYPER FLEXION WITH DOWEL**

distance from dowel to floor

> 60 cm Stick to floor	5
50 cm - 59 cm	4
40 cm - 49 cm	3
30 cm - 39 cm	2
20 cm - 29 cm	1
<19 cm	0

**Total out of 5 :**7 **PUSH-UP (Tricep)**

Ears, shoulders, hips, knees, ankles in horizontal line	1	0
Body descends close to floor and remains parallel	1	0
Legs in full extension and together	1	0
12 repetitions are completed with all competencies accomplished	1	0

**Total out of 4 :**8 **NEEDLE - RIGHT**

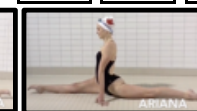
Left Leg is at 12 o'clock	4	0
Right leg is at 6 o'clock	1	0
Both knees and top ankle are fully extended as per Canadian standard	1	0
Hold for 2 full counts of 8	1	0

**Total out of 7 :****NEEDLE - LEFT**

Right Leg is at 12 o'clock	4	0
Left leg is at 6 o'clock	1	0
Both knees and top ankle are fully extended as per Canadian standard	1	0
Hold for 2 full counts of 8	1	0

**Total out of 7 :**9 **ARIANA ROTATION**

IA ROTATION	L		C		R	
Vertical alignment of ears, shoulders and torso	1	0	1	0	1	0
Hips and shoulders square	1	0	1	0	1	0
Extension of both knees and ankles as per Canadian standard	1	0	1	0	1	0
Complete FLAT split	4	0	4	0	4	0

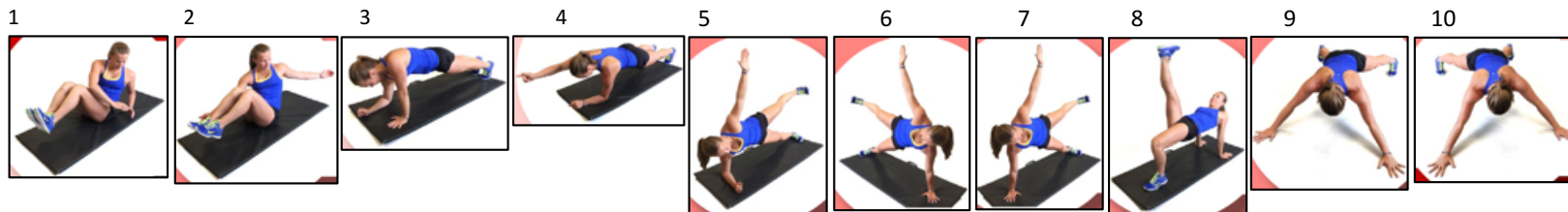
**Total out of 7 (for each split) :**



**10 CORE ROUTINE: complete Level 2 - 30sec each exercise with no rest**

- |  |   |   |
|--|---|---|
| 1 - Sky-Centre-Side-Centre (fast pace) for 30 sec    | 1 | 0 |
| 2 - Bent knee V Sit with Heel Cup for 30 sec         | 1 | 0 |
| 3 - UP-UP-DOWN-DOWN (fast pace) for 30 sec           | 1 | 0 |
| 4 - Superman Dyno (slow pace) for 30 sec             | 1 | 0 |
| 5 - Side Plank Rollovers with Heel to Sky for 30 sec | 1 | 0 |
| 6 - Star Planks for 15 sec each side (total 30 sec)  | 1 | 0 |
| 7 - Star Plank Rollovers (slow pace) for 30 sec      | 1 | 0 |
| 8 - Table Top Heel to sky for 30 sec                 | 1 | 0 |
| 9 - Clock Right (slow pace) for 30 sec               | 1 | 0 |
| 10 - Clock Left (slow pace) for 30 sec               | 1 | 0 |

**Total out of 10 :**



**25 m FRONT FLUTTER**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**200M IM**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**25m PROPELLOR/ TORPEDO**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

**Checklist for coaches to use in training**

- |  |   |   |
|--|---|---|
| Flat sculling motion used with wrists bent well back | 1 | 0 |
| Upper arms stationary                                | 1 | 0 |
| Elbows are held at 45deg in "Y" position             | 1 | 0 |

**Extension**

- |  |   |   |
|--|---|---|
| toes, knees, hips in full extension              | 1 | 0 |
| shoulders full flexion                           | 1 | 0 |
| legs stay together (side by side) for entire 25m | 1 | 0 |

**Height**

- |   |   |   |
|---|---|---|
| dorsum of foot stay dry (at the surface) for entire 25m | 1 | 0 |
| face stays dry (at the surface) for entire 25m          | 1 | 0 |
| anterior hips stay dry for entire 25m                   | 1 | 0 |



PSO-NSO Skills Protocol  
2017-2018



# Train to Compete (Stage 5)

## Junior / 16-18 Years

*General Athletic & Synchro Skills*



# PSO-NSO Skills Protocol 2017-2018



BAL = Balance      FLEX = flexibility      STRG = strength      CORE = core      SPD = speed

SKILLS: Junior/ 16-18 TRAIN TO COMPETE		Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
	<i>Land: to be performed as an individual routine</i>					
BAL	1. Tripod headstand with lateral split R & fast close	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
CORE	2. Core routine Level 3 – 30 sec/ exercise	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG	7. Push-up: 12 repetitions	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>
STRG/FLEX	4. Ballet Leg R/L on 2 foam rollers	<input checked="" type="checkbox"/>	club	club	club	<input checked="" type="checkbox"/>

*\* Toes Flexion & Ankle PF (plantarflexion) to be assessed within above skills*

STAMINA						
400m IM: as per FINA rules		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

BASIC TRANSITIONS/ ELEMENTS				Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
Group picked prior to competition								ESPOIR
Group 1	Group 2	Group 3	Group 4					
<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Compulsories	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 1 figures	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 3 figures	<input checked="" type="checkbox"/> 1 <sup>st</sup> half of Gr. 4 figures	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Gr. 1 figures	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Compulsories	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half Gr. 4 figures	<input checked="" type="checkbox"/> 2 <sup>nd</sup> half of Gr. 3 figures					

ELEMENTS/ FIGURES:		Nov/ Dec	Jan/ Feb	Feb/ March	April/ May	May/ June
Optional group picked prior to competition						
National Stream: ELEMENTS	FINA Junior ELEMENTS as per 2017-2021 FINA Rulebook		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provincial Stream: Elements or Figures	FINA 16-18 Figures or Junior Elements as per 2017-2018 Synchro Canada Rulebook		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

*\* the headstands with lateral split can be performed in a figure trainer if required*



# PSO-NSO Skills Protocol 2017-2018



## Train to Compete

*The following skills are to be performed in a skills routine \* or individual stations (as per provincial implementation).*

*\* one skill following another with no pause in transitioning from one skill to another.*

### 1. Tripod Head Stand with Lateral split R & fast close

- Athletes start in a 4 pt. stance on the "X" on their yoga mat
- After the signal to start, athlete assumes modified tripod head stand position with a right lateral split: use hands/ arms and top of head as the base, also referred to as a yoga tripod headstand OR head on the floor (may have a small mat) with hands on the floor, elbows at 90°. Take 1 full 8 count to set-up. Athlete gets 3 attempts to get set.
- Vertical alignment of ears, shoulder joint, hip joint, and trunk position is perpendicular to the floor.
- Ribs connected to abdominals (no ribs poking out).
- Horizontal alignment (180 degree flat split position) of legs.
- Hips square.
- Legs and feet are in full extension as per Canadian standard.
- Balanced control for 1 full count of 8.
- Rapid close in 1 count to a stable, balanced vertical position
- Hold the vertical position for remaining 7 counts.
- Legs and feet together, knees and ankles extended as per Canadian Standard.
- Athletes return safely and carefully to tuck position, feet on the "X" on the mat/ ground.

### 2. Core routine Level 3 – 30 sec / exercise

1. Bent knee to "V"
2. Superman Dyno (fast pace)
3. Superman Crunch
4. Stayin Alive
5. Star Plank with Heel to Sky
6. Star Planks Dynos
7. Table Top Russian Kicks Dyno
8. Stretch Clocks with 360 revolution to the right  
Stretch Clocks with 360 revolution to the left
9. Jump Clocks to the right for one 360 revolution  
Jump Clocks to the left for one 360 revolution
10. Slam & Twist

### 3. Push-up (Tricep): 15 repetitions

- From plank position, arms should bend at elbow level with elbows staying close to the body. Hands below the shoulder.
- Horizontal alignment of ears, shoulders, hips, knees and ankle joint.
- Legs should remain straight and together, face should remain looking at the ground.
- Body descends close to the floor and remains parallel. Bottom of push-up is when body and upper arm is parallel to the ground. Elbows will have a 90° angle.
- One push up for every four counts, 2 counts to flex and to counts to extend elbows.
- Perform 15 repetitions with all above-mentioned points attained.

### 4. Ballet Leg R/L on 2 Foam rollers

- Athletes assume a Ballet Leg position on two foam rollers; one placed under the ankles (above the heel) and one placed under the mid-point of the shoulder blades. Athletes may use her arms for assistance and stability (if needed) to assume the position.
- At the timers' signal, athlete maintains the position, with no support from the arms on the floor, for the indicated time.
- Body alignment = an imaginary line through the ears, shoulders, hips, and the horizontal malleolus should be as close to horizontal as possible.
- Gluts (bum) should be engaged 100%.
- Neutral cervical, thoracic and lumbar spine is maintained and the core should be tight (ribs not poking out).
- The vertical thigh (ballet leg) maintains 90° with the horizontal line. The horizontal leg faces the ceiling (no roll-out).
- Both knees are fully extended. Both ankles are fully plantar flexed and toes are flexed maximally.
- Arms are along the side of the trunk parallel to the floor and engaged.
- Hold for 2 full 8 counts.



# PSO-NSO Skills Protocol 2017-2018



400m IM			
PURPOSE		PROTOCOL	SCORING CRITERIA
<p>To assess aerobic stamina</p> <p><i>Athlete's objective is to swim 400m IM as fast as possible</i></p>		<ul style="list-style-type: none"><li>– Athletes start with one hand on the pool deck, the other arm is on the water surface facing the direction of the pool lanes, body in a tuck position, two feet touching the wall</li><li>– Starter says: Ready... Whistle</li><li>– Athlete completes 4 laps of butterfly, 4 laps of backstroke, 4 laps of breaststroke and 4 laps of freestyle (if completing in 25m pool).</li><li>– Flip turn or two-hand touch (as per each stroke) obligatory. At the end of each lap: athletes complete a flip turn or two-hand touch, followed by two foot push-off (similar to breast-stroke turn in competitive swimming), dolphin or flutter kick during streamline push-off permitted.</li><li>– Time will be recorded when athlete completes a one hand touch on side of pool.</li></ul>	<p>SPEED = Time to complete the task</p>



## TRAIN TO COMPETE (stage 5) : JUNIOR / 16-18 yrs old

START #: \_\_\_\_\_

ATHLETE NAME: \_\_\_\_\_

AGE/YR: \_\_\_\_\_

Circle the deductions/ score for each category. Points possible are noted for each event

**LAND SKILLS (29 pts possible) - TOTAL SCORE****1 TRIPOD HEADSTAND SPLIT (RIGHT) & RAPID CLOSE****Body position & right split position**

RIGHT

Vertical alignment of head (ears specifically), shoulders and hips (no arched back)	1	0
Hips and shoulders square	1	0
Extension of both legs and ankles as per Canadian standard	1	0
Complete FLAT split	4	0

Total out of 7 :

**Rapid close to Vertical**

Stable, balanced vertical	1	0
Head (ears specifically), shoulders, hips and ankles aligned	1	0
Extension of both knees and ankles as per Canadian standard	1	0

Total out of 3 :

**2 CORE ROUTINE: complete Level 3 - 30sec each exercise with no rest**

1 - Bent -knee to "V" for 30 sec	1	0
2 - Superman Dyno (fast pace) for 30 sec	1	0
3 - Superman crunch for 30 sec	1	0
4 - Stayin Alive for 30 sec	1	0
5 - Star Plank with Heel to Sky for 30 sec	1	0
6 - Star planks Dynos for 30 sec	1	0
7 - Table Top russian kicks Dyno for 30 sec	1	0
8 - Stretch Clocks with 360 revolution to the right	1	0
Stretch Clocks with 360 revolution to the left	1	0
9 - Jump Clocks to the right for one 360 revolution	1	0
Jump Clocks to the left for one 360 revolution	1	0
10 - Slam & Twist for 360 sec	1	0

Total out of 12 :

**3 PUSH-UP (Tricep)****Body position**

Ears, shoulders, hips, knees, ankles in horizontal line	1	0
Body descends close to floor and remains parallel	1	0
Legs in full extension and together	1	0
15 repetitions are completed with all competencies accomplished	1	0

Total out of 4 :

**4 BALLET LEG POSITION ON TWO FOAM ROLLERS**

Right

Head (specifically ears), hips and ankles in horizontal line	1	0
Vertical thigh (ballet leg) maintains 90° with the horizontal line	1	0
Both knees are extended and both ankle are planter flexed (as per Canadian Standard)	1	0

Total out of 3 :

Left

Head (specifically ears), hips and ankles in horizontal line	1	0
Vertical thigh (ballet leg) maintains 90° with the horizontal line	1	0
Both knees are extended and both ankle are planter flexed (as per Canadian Standard)	1	0

Total out of 3 :

**400M IM**

Timer 1= \_\_\_\_\_

Timer 2 = \_\_\_\_\_

Average time = \_\_\_\_\_

