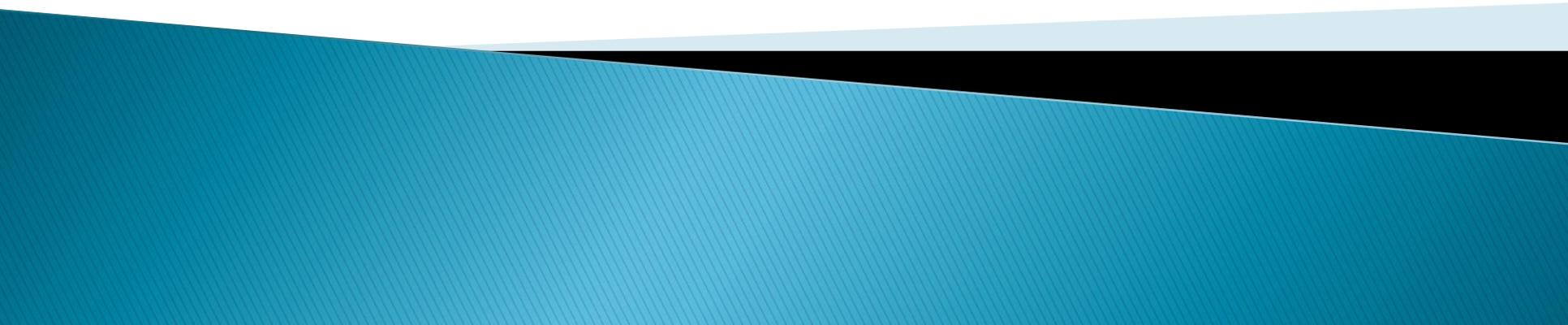


Developing the young Orienteer into an Athlete

Developing Physical Literacy



Introduction

- ▶ Background. As well as being a UKCCL2 orienteering coach I am a Junior Strength and Conditioning coach and a Youth Fitness Specialist.
 - ▶ Ages 6–16 is then age range covered by this talk although much of it could be applied to adults not used to exercise.
 - ▶ What I mean by ‘Developing the Young Orienteering into an Athlete’.
 - ▶ Strength and Conditioning
- 

Reflection

- ▶ Do athletes succeed because of the system we have or in spite of it?
 - ▶ Is success at the highest level due to good luck / orienteering parents rather than by good management.
 - ▶ 10 year rule ‘ It takes ten years of extensive practice to excel in anything’ Dr Herbert Simon.
- 

Why this is Important

- ▶ It is generally agreed that there is a decline in strength of young people
 - ▶ Recruitment, been seen to look after young athletes could be seen by parents important.
 - ▶ Coaching should more be non sport specific at younger ages.
 - ▶ Do we not owe it to young people as coaches to look at their over all development?
- 

Benefits

- ▶ Larger pool of fit athletes for the Talent Squad.
 - ▶ Potentially less injuries amongst orienteers both young and old.
 - ▶ Stronger junior orienteers who may stay in the sport longer.
 - ▶ Orienteering seen as a go to sport for young people.
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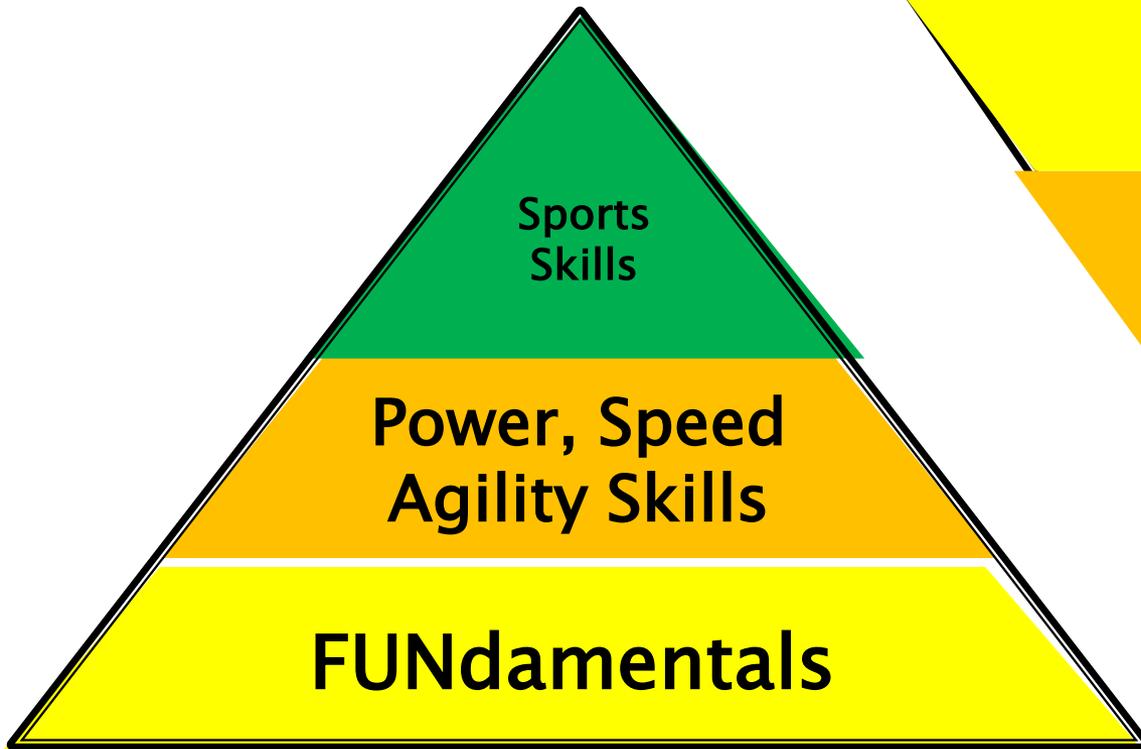
- ▶ If fundamental skills are emphasised and developed in a systematic manner, participants at an early stage should be:
 - ▶ Better equipped and more confident
 - ▶ More willing to try a range of sports
 - ▶ More able to make successful transitions to other sports
 - ▶ Able to find at least one sport that captures their interest
 - ▶ More motivated to make sport a continuing part of their lives.
- Coaching for long Term Athlete Development UK Coaching

Why us?

- ▶ Why not?
 - ▶ Schools don't have the time or perhaps the will.
 - ▶ Should we leave it to gyms? Are all Personal Trainers in gyms qualified for young people?
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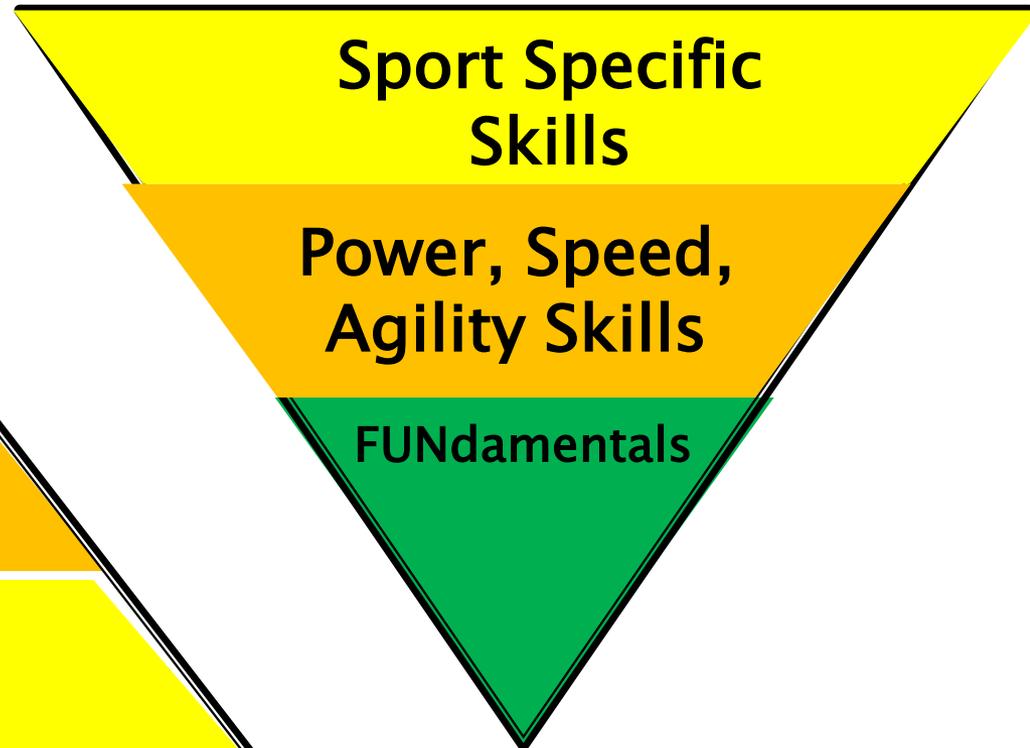
Shouldn't we stick to just Orienteering?

- ▶ Up to the age of around 15–16 sports coaching should be either multi sport or non specific training in the main with some specialisation.
 - ▶ It should be about developing physical literacy not just specific techniques/skills for a specific sport in the main.
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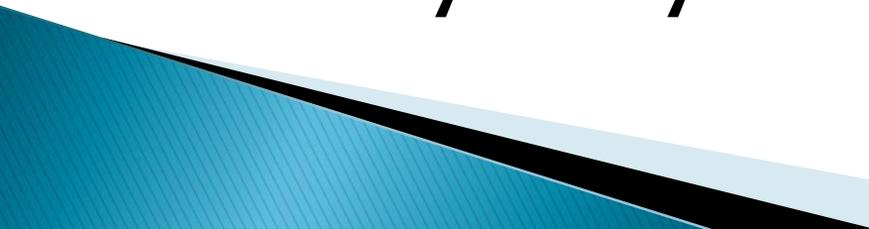


What should happen

What often happens



How?

- ▶ LTAD
 - ▶ Developed by Istavan Balyi
 - ▶ Highlighted optimise times to train Strength, Speed, etc.
 - ▶ Has since been modified in many ways.
- 

Simplified LTAD format

Active Start	Males and Females 0 - 6	Learn FUNdamental movements and link them together in play
FUNdamentals	Males 6 – 9 Females 6 - 8	Learn all FUNdamental movement skills and build overall motor skills
Learn to Train	Males 9 – 12 Females 8 – 11	Learn overall sport skills
Train to Train	Males 12 – 16 Females 11 – 15	Build aerobic base, develop speed and strength, further develop and consolidate sport-specific skills
Train to Compete	Males 16 – 23 +/- Females 15 – 21 +/-	Optimize fitness preparation and sport-, individual-, and position-specific skills as well as performance
Train to Win	Males 19 +/- Females 18 +/-	Focus on podium performances
Active for Life	Enter at any age	Smooth transition from an athlete's competitive career to a lifelong physical activity and participation in sport

Ages, developmental age not chronicle age

Canadian version

III - Learn To Train Age: 10 - 12, males and females

Learn overall sports skills

This is one of the most important periods of motor development for children, and represents a window of accelerated adaptation to motor co-ordination (skills).

In late specialization sports, too early specialization can be detrimental to later stages of skill development and to refinement of the fundamental sport skills.

At this stage, children are developmentally ready to acquire the general sports skills that are the cornerstones of all athletic development.



Primary objective:
Learn overall sports skills

Technical/tactical goals:

- Practise feature familiarization and recognition, e.g., relate map symbols and colours to the terrain and vice-versa
- Learn how to orient the map using linear terrain features
- Learn to recognize simple handrails in the terrain and how to navigate along them



- Think ahead; be aware of handrail changes along your route
- Know how Start, Finish and Controls are marked
- Start learning international control symbols
- Practise map holding and folding technique
- Learn techniques that allow athletes to navigate off trails for short distances
- Learn basic route choice tactics and decision-making principles, e.g., at every control, have a plan for getting to the next control, and commit to it
- Allow older youngsters in this group to sometimes follow one another on a training course, and afterwards tell each other what they thought the other had done well; the group comes up with at least three positives for each orienteer
- Introduce rough orienteering. Focus on safe orienteering but occasionally point out where youngsters can safely run faster
- Introduce looking ahead and advance planning; learn to look up and begin to think, "What will I see next?"
- Develop basic game concepts

Physical goals:

- Aerobic fitness is increasingly important, especially for girls. Include general aerobic activities 3-4 x per week
- Girls: include Speed training (<20 s) and Aerobic Capacity work
- This is the best stage to train forest running technique. Include agility training and running on technical/challenging terrain
- Introduce basic elements of training: warm-up, cool-down, recovery, rest, diet

Mental/psychological goals:

- Pre-race preparation: help develop athlete's concentration through executing routines e.g., leg planning using CAR: Control, Attack-point, Route
- Pre-race preparation: develop simple relaxation techniques, e.g., take 3 deep breaths before you start; smile, when standing at the start line

Life skill goals:

- Develop independence at home through fun map reading and symbol recognition games
- Develop independence from parents by orienteering with other children and/or coaches
- Foster positive social environment through different fun activities outside of sport, e.g., build "adventure-based" activities into the season plan
- Emphasize group interaction, team building and social activities
- Practise correct basic nutrition and hydration practices
- Narrow the athletic focus to three sports

Youth Physical Development Model Males

YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR MALES																								
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+				
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD						ADOLESCENCE						ADULTHOOD								
GROWTH RATE	RAPID GROWTH			↔			STEADY GROWTH			↔			ADOLESCENT SPURT			↔			DECLINE IN GROWTH RATE					
MATURATIONAL STATUS	YEARS PRE-PHV									←			PHV			→			YEARS POST-PHV					
TRAINING ADAPTATION	PREDOMINANTLY NEURAL (AGE-RELATED)									↔			COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)											
PHYSICAL QUALITIES	FMS			FMS			FMS			FMS														
	SSS			SSS			SSS			SSS														
	Mobility			Mobility						Mobility														
	Agility			Agility						Agility			Agility											
	Speed			Speed						Speed			Speed											
	Power			Power						Power			Power											
	Strength			Strength						Strength			Strength											
	Hypertrophy									Hypertrophy			Hypertrophy						Hypertrophy					
	Endurance & MC			Endurance & MC						Endurance & MC			Endurance & MC											
TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE						MODERATE STRUCTURE			HIGH STRUCTURE			VERY HIGH STRUCTURE								

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Youth Physical Development Model Females

YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR FEMALES																					
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+	
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD					ADOLESCENCE								ADULTHOOD				
GROWTH RATE	RAPID GROWTH			↔ STEADY GROWTH ↔					↔ ADOLESCENT SPURT ↔				↔ DECLINE IN GROWTH RATE								
MATURATIONAL STATUS	← YEARS PRE-PHV							PHV				→ YEARS POST-PHV									
TRAINING ADAPTATION	PREDOMINANTLY NEURAL (AGE-RELATED)										↔ COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)										
PHYSICAL QUALITIES	FMS			FMS			FMS			FMS											
	SSS			SSS			SSS			SSS											
	Mobility			Mobility					Mobility												
	Agility			Agility				Agility				Agility									
	Speed			Speed				Speed				Speed									
	Power			Power				Power				Power									
	Strength			Strength				Strength				Strength									
	Hypertrophy					Hypertrophy			Hypertrophy								Hypertrophy				
	Endurance & MC			Endurance & MC					Endurance & MC							Endurance & MC					
TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE					MODERATE STRUCTURE				HIGH STRUCTURE				VERY HIGH STRUCTURE				

IYCA Model



- ▶ Movement Foundations (2–5)
- ▶ Guided Discovery (6–9)
- ▶ Learning Exploration (10–13)
- ▶ Train with Application (14+)

Things to consider when dealing with young people.

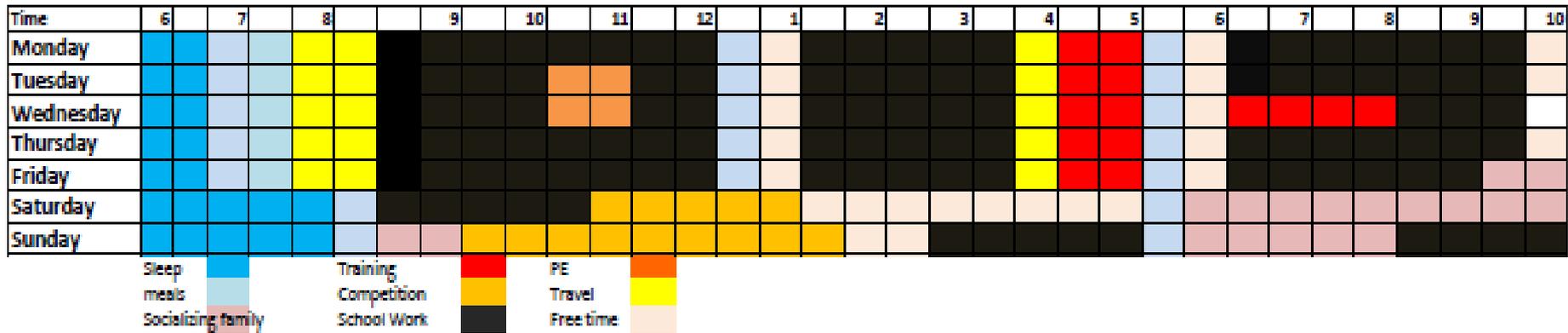
- ▶ Not small adults.
 - ▶ [SPIDERfit Kids](#)
 - ▶ This where some form of LTAD plan helps.
- 

Where to start

- ▶ A, B, Cs
 - ▶ Core
 - ▶ General Strength
 - ▶ Knees? This is important for girls
- 

Fitting training into a busy life

The Young Athlete



Practical Ideas

Male youth scoring sheet

Exercise	5pt	4pt	3pt	2pt	1pt	0pt
Push up	>= 40	30-39	20-29	Oct-19	03-Sep	>3
Pull up Underhand grip	>=12	9-11	6-8	4-7	1-3	0
Split leg squat stand on a box average both legs	5	4	3	2	1	0
squats in 60secs can have upto 10% BWT held on chest	>= 40	33-39	26-32	19-25	Nov-18	<=10
Plank arms straight (secs)	>120	90-120	60-90	30-60	Oct-30	<10
Twisting Crunchs	>=40	33-39	26-32	19-25	Nov-18	<=10
Clam shell	30 each leg					
Weeks total						

Start off at a level you can do at a push. Then keep increasing the number every few days.

Mix the order up so as to give tired muscles a rest.

What can a Level 2 coach do?

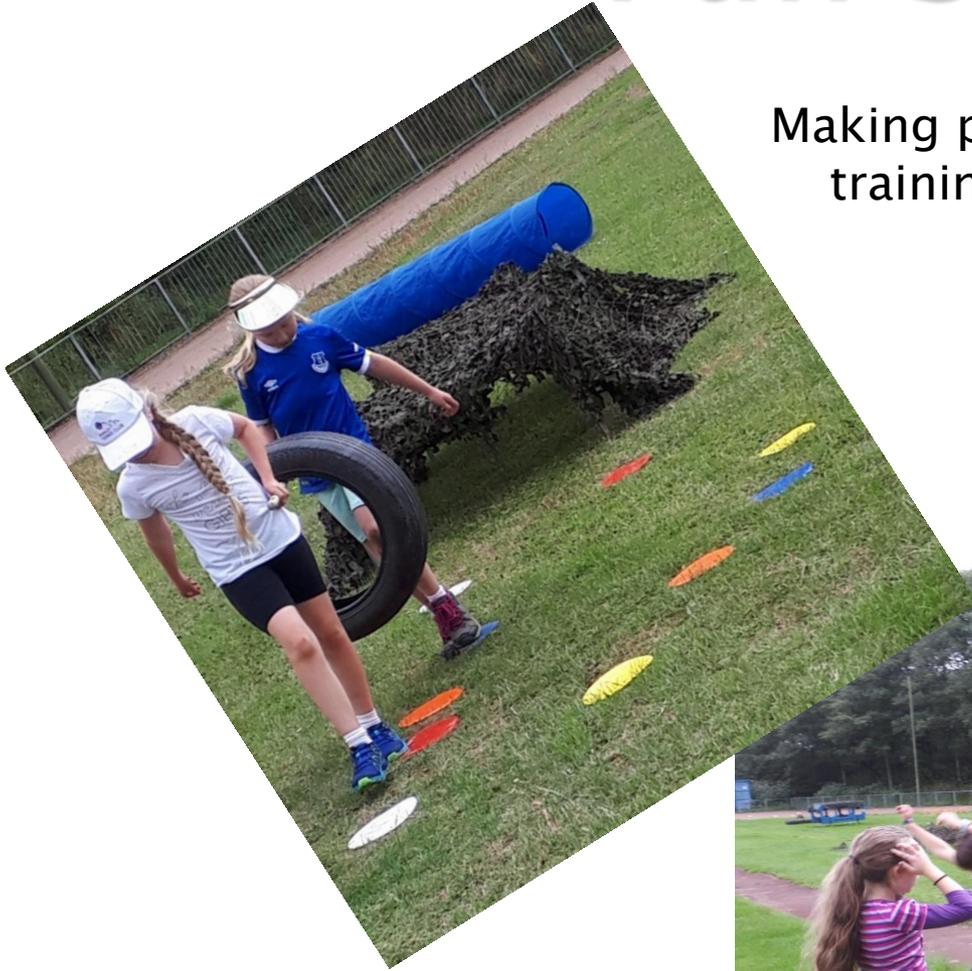
BOF Strength and Conditioning Video

Technique is paramount.

Body weight circuits can be very effective.

Fun Stuff

Making physical training fun



Barriers

- ▶ Coaches / Coach Education
 - ▶ Time
 - ▶ Critical Mass
 - ▶ Parents
- 

Help available

- ▶ Training courses / organisations
 - ▶ Strength and Conditioning Education
 - ▶ IYCA
 - ▶ SPIDERfit Kids
 - ▶ Youth Exercise Training website
 - ▶ Local coaches
 - ▶ Books
 - ▶ Online coaching Skype, Sportlyzer, Train Heroic
 - ▶ Regional Support?
- 

Resources

- ▶ <https://strengthandconditioningeducation.com/high-powered-performance-with-dan-baker/high-powered-performance-with-dan-baker-overview/#prettyPhoto/0/>
- ▶ IYCA
- ▶ SPIDERfit Kids
- ▶ Athletic Fitness for Kids
- ▶ Youth Strength Training
- ▶ Strength and Conditioning for Young Athletes science and Application
- ▶ Coaching for Long Term Athlete Development Coaching uk
- ▶ Youth Exercise Training website

IYCA Model

SAMPLE 5 - GUIDED DISCOVERY (6-9)

Discovery/Exploration

Monster Walks

Prone Partner High 5's

Levels

Cross the River

Object Manipulation

Jump Rope

Coordination

Around the World

Cooperation/Game Play

Peaks and Valleys

Notes

Video

IYCA Model

SAMPLE 1 - LEARNING EXPLORATION (10-13)

Active ROM/Muscle Activation

Bootstrap Stretch

Hand Taps

Cobra Stretch Variation

Hip Circles

General Preparation

Active Quad

Toe Walks

High Knee Pull

Heel Walks

Enhanced Coordination

Skip Loops

180 Jumps

Strength Training

Squat to Lunge Walk

Lateral Jump

Lateral Hand Walks

Game Play

Red Blue Game

IYAC Model

TRAIN WITH APPLICATION (14+) - SAMPLE PROGRAMS

SAMPLE 1

Day 1		Day 2	
Order	Movement	Order	Movement
1A	Explosive	1A	Explosive/Rotational
	Hang Power Clean 3x5		MB Side Throw 3x8ea
1B	Anti-Extension	1B	Anti-Rotation
	Plank 3x30s		Band Anti-Rotation Press 3x10ea
2A	Hinge	2A	Squat
	KB RDL 3x10		KB Goblet Squat 3x10
2B	Reset or Core/Trunk	2B	Reset or Core/Trunk
	Static Hip Mobility Drill		Static Hip Mobility Drill
3A	Pull	3A	Push
	Inverted Row 3x10		Push Ups 3x10
3B	Single-Leg Hinge	3B	Single-Leg Squat type
	Single-Leg glute bridge 3x10		Step Up 3x10ea
3C	Core/Trunk	3C	Core/Trunk
	Side Plank 3x30s		Farmer's Walk 3x 20 yds

Questions?

Thank You



Tomorrow

