UNDERSTANDING DEVELOPMENT

TRAINER

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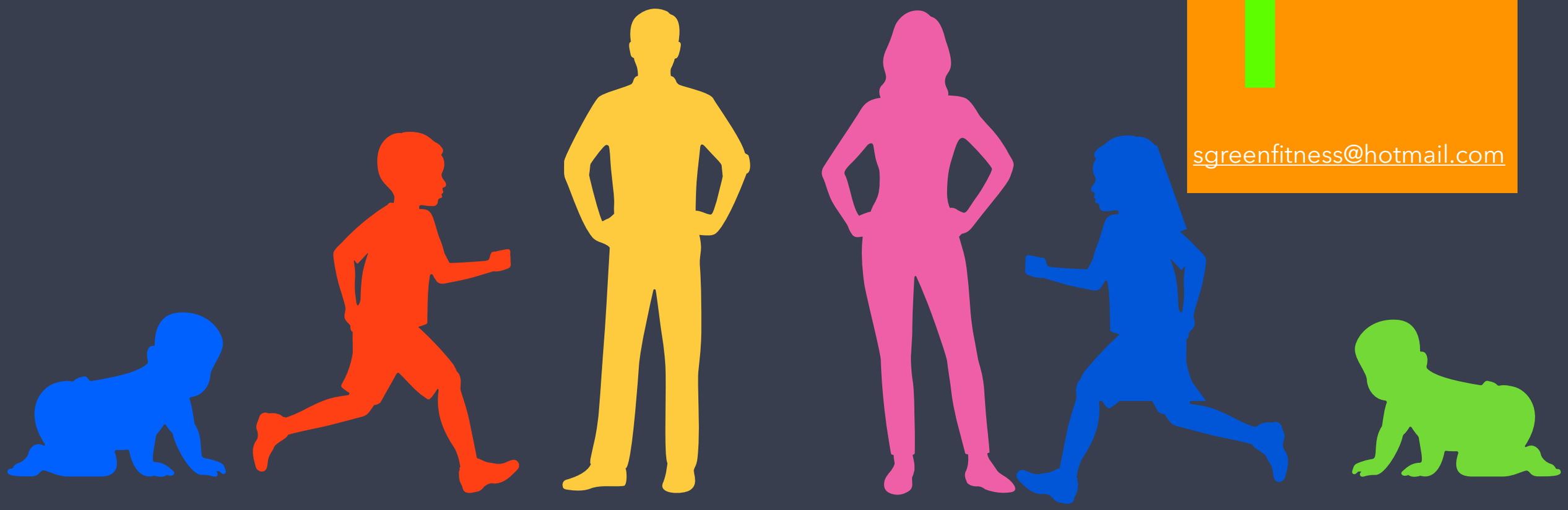

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Written by David Johnson

Introduction

Recent research has shown that children between the ages of 6-11 years are not taking sufficient exercise to enable them to develop fully their cardiovascular fitness and co-ordination skills.

There is also a great deal of concern that traditional games are disappearing and being replaced with sports-specific activities which are unsuitable for children of this age group.

Activities that help develop social and mental abilities have also declined over the past few years.

The reasons for the above concerns are many and varied but include the following:

a) Children spend more time in sedentary leisure (I.e. watching TV or playing online games) and not as much time in physical leisure pursuits. Although video games do teach eye to hand co-ordination, they tend to be less creative and less physically demanding.

b) Physical education, movement and dance have diminished greatly in primary schools over the last 20 years and the present National Curriculum attainment targets do not appear to be as physically challenging as they ought to be.

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c) The total domination of the motor car as a means of transport has meant children can no longer play safely in the street, and so take most of their recreation indoors.

d) The pressure from various governing bodies of sport to produce elite performers has meant the introduction of scaled down versions of adult sports with all the problems of adult values,rules and subsequently training programmes.

There is a need for physical activities that teach basic movement skills that will be used in later years as the foundation for sports-related skills and techniques.

They also need to challenge the young person physically, mentally and morally, (i.e. teach the concept of 'fair play, winning and losing, co-operation) but that are also a great deal of fun.

Understanding Development

Children are not mini-adults, but they are special people with their own special needs at varying stages throughout their development from Childhood to Adolescence to becoming an Adult.

These stages need to be taken into account when introducing physical activity. Be aware that they will vary from child to child and between the sexes.

The following tables and pages attempt to show these stages and how they interlink with other aspects of a child's development. It is not an in-depth research of the topic, but an outline of present ideas and philosophies.

General. Child Development

The first years of life are the most important for skill learning. They determine the basic patterns of locomotion, manipulation and language development. The stages of skill development usually follow the pattern below:

4 months - 1 year

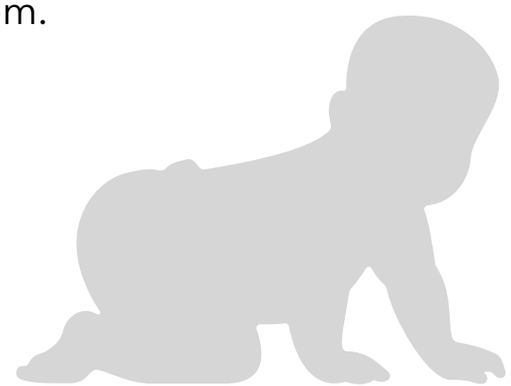
Reflexive movement

Involuntary, information seeking and gathering, nourishment seeking and protective. This stage determines the early movement patterns and foundations are laid for later life.

1 year - 2 years

Rudimentary Movement

First voluntary movements, stabilising, reaching, grasping, crawling and creeping. In this stage coordination begins to improve and the muscles and senses help the child to deal with external objects and experiment with them.



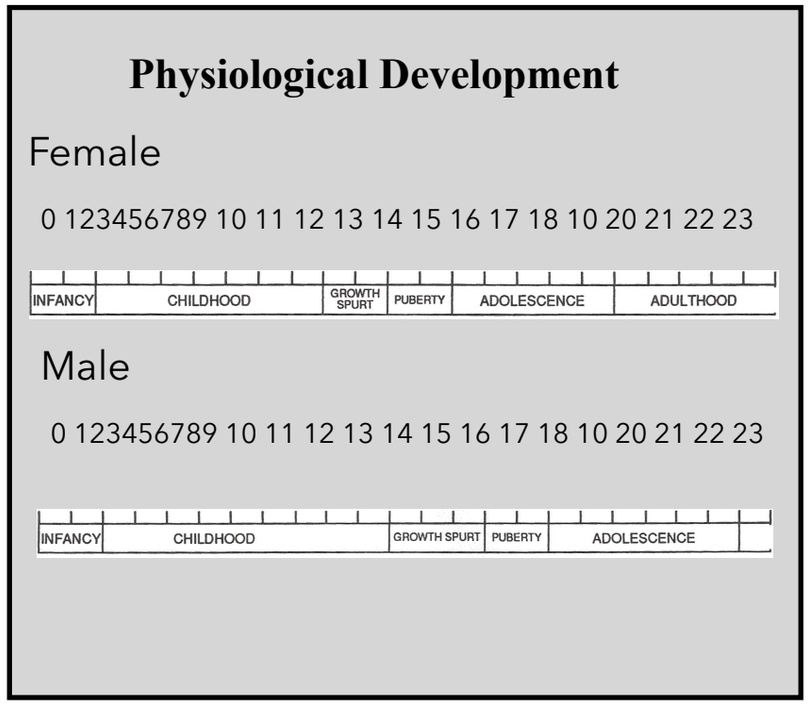
2 - 7 years

Fundamental movement

Elementary skills, running, jumping, throwing, catching, striking, kicking and skipping. This stage is sometimes called the 'skill hungry years',the time when the child is receptive to skill-learning.This through discovery, exploration methods and indirect teaching, which is child centred. The skills learned at this time lead to more sports related skills in later life. Common core skills should be taught preparing the child for all sports and recreational pursuits when s/he becomes an adult.

7 - 14. Sports related

Movement or fundamental skills, co -operative team games and refinement of fundamental movements are the main elements during this stage. This is the stage when the child learns best from his/her own experiences, not told by the teacher or coach; thus all teaching should be child centred, and conditions should be conductive to this type of teaching. Teaching is of the guided style with the teacher not being too intrusive or authoritarian.



Infancy

Birth to 9 years

From birth to the age of three months sees the fastest growth of the human child. There is then a slowing down process, but growth does continue at a steady rate. In the first few days a new baby loses weight, and then increases weight in the next six months by two or three times. Length growth is fastest in the first year and then slows down. The lungs, muscles and blood volume show a great increase in infancy and slows down when the child reaches Childhood. Heart rate and pulse rate plateau out at about 6 to 8 years of age. Neural development, I.e. brain, eyes, skull and spinal cord, spurts in the first six years of growth and by this age 90% of neural growth is finished

Childhood

Girls 9 years - 11 years and boys 11 years - 14 years

This time of life is known as the Pubertal growth spurt, i.e. an increase of bone growth compared to the previous few years. Girls on average reach this stage about eighteen months to two years before boys. Mobility in both sexes starts to decline, but more so in boys than girls. The relative maximum V02 uptake gradually declines in girls but not in boys. This is due to increase in body fat, which is more marked in girls than boys.

The sex hormones increase in both sexes i.e. Oestrogen in girls, Androgens in boys.

Muscle development trails skeletal development by 1.5 to 2 years which means relative strength levels are low.

As a child reaches the end of this phase he/she is ready for adolescence.

Puberty

Girls 11 - 13 years and Boys 14-16 years

With the release of the sex hormones the young person develops secondary sex characteristics. Oestrogen, the female hormone, is produced in the ovaries, and Androgens, the male hormones, are produced in the testes.

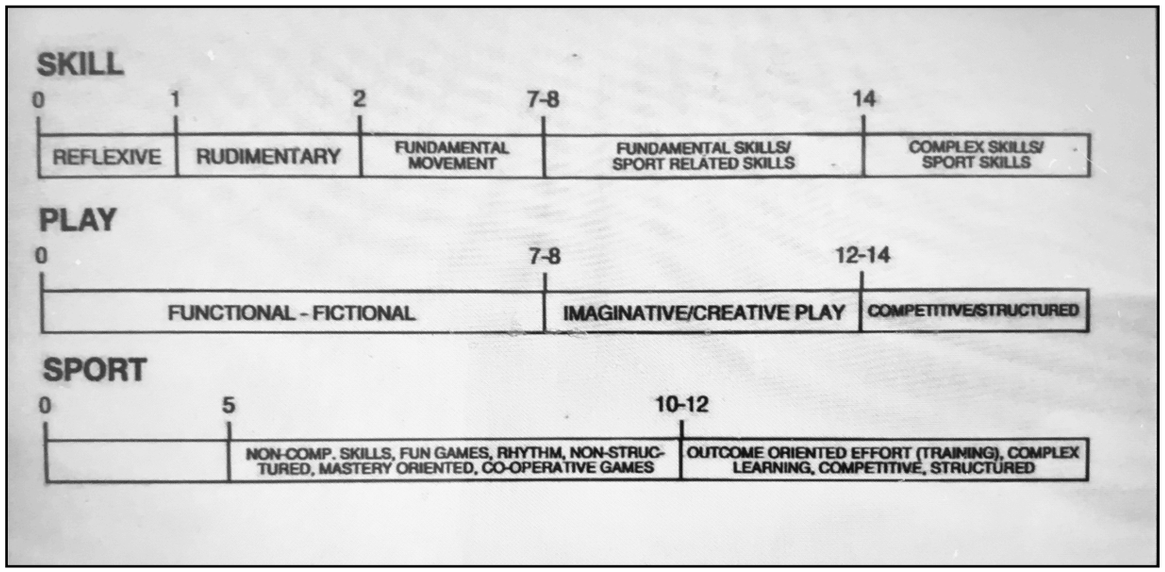
Androgens are the muscle building hormones and there are increases in girls as well as boys during this period. (but not nearly as great) and the Oestrogen effect 'dominates' in girls.

Adolescence

Girls 13-18 years and Boys 16-20 years

A very slight increase in growth still occurs in both sexes, but by the age of sixteen for girls and twenty for boys the growing ends of the bones (the Epiphyses) have fused, and no further growth can take place. Aerobic and Anaerobic power due to growth also ceases.

At about the nursery school age, games with basic rules are usually accepted i.e. ball games, hide and seek. Play is more social than competitive, and as this period ends play becomes much more of the 'active' type, with the development of long-term hobbies and interests .



13 years- onwards

Individual skill developments are emphasised and effort becomes more important than ability. The outcome of competition becomes more important to the participant and the ability to cope with pressures of competition is better.

For those that participate in sport a closed-to-open competitive environment should be encouraged, i.e. easy competition and games with friends, moving to a high level of competition, against unknown competitors. Social pressure must be taken into account at this age i.e. school, exams, work.

After 16 years of age there is also extra pressure in change of lifestyle and environment, e.g. starting work, going to college or

7 - 13 years

Fun and games with the emphasis on non-competitive sport and self-competitive improvement. Team games are most important in developing a co-operative approach. Ability is more overriding than effort. Membership of clubs and societies may help a child to develop play and its relationships. Imaginative/creative play is at its most important.

Play/sport development o - 7 years

The beginning of this stage is usually referred to as functional play-learning a function of skill ego arranging and disarranging play things. Then comes fictional or pretend play e.g. role playing, along with receptive play i.e. looking at pictures, listening to stories and then constructive games-playing with bricks, building drawing, playing with clay, sand, water,

Psychology of play and competition

There is a great deal of discussion whether sport should be competitive or noncompetitive.

The most recent research has shown that children do perceive stress in competitive situations. The following conclusions were found in children under the age of twelve years old, from research done by Hardy, Roberts et al.

1. Children who had a strong competitive trait had a greater anxiety in a competitive environment. 2. Children with low self-esteem had greater stress than children with high self-esteem.

3. If there was a low expectancy of doing well then there was greater stress.

4. A child who relies on approval from a parent or coach had higher stress.

5. Children who were under great pressure from parents to participate and compete well were under the greatest stress.

6. Losing creates greater stress than winning. Whilst it cannot be denied that children like to compete, it is the type of competition which is the important factor.

Competition demands and expectations should not come from the adult and the competitions should not be scaled down versions of adult sports and games.

Competitive games should come from the children themselves and they will automatically decide their own rules and regulations. Likewise, motivation should come from the child. A child will decide if s/he wishes to join in, without being forced to comply through adult pressure. When guided by teachers or coaches the emphasis should be on self improvement.

Summery

The theories of child development whether it be sport, play, social or psychological should be based on the following:

a) An understanding of the structure of movement.

b) An understanding of the needs of the child. Actual needs not an adult's perceived needs.

c) An ability to communicate with children.

d) An understanding of the growth development of the child.

e) An understanding of the social Psychological development of the child.

f) An understanding of teaching progressions in movement related skills. Linked with this are the aims of movement education for the young child.

These are:

a) The ability to move competently and confidently, in a wide variety of movement sphere

b) The ability to solve new movement demands.

c) The ability to interact positively with others (co-operate) through, about and in movement. d) To develop and maintain fitness

e) To understand why they are doing movements.

f) To find lasting personal meaning and significance in movement and physical fitness.

It can be seen, therefore, that semi and self structured play is vitally important to children, particularly, between the ages of 2-11. It helps them to familiarise them selves with their environment, it helps them to learn social skills and it develops motor skills and physical fitness.

It must be emphasised, that the approach to the above objectives must be enjoyable and educational to encourage participation.

This training manual for teachers, play staff, coaches, and parents is designed to address the needs of the National Curriculum key stage 1&2. This means that the games will have a cross-curricular aspect to them and children will be able to use them to gain knowledge in history, cultural aspects, design and creative work, etc., as well as improving their physical abilities.