

# CHAPTERS 9 & 10

## MIDDLE CHILDHOOD

9. PHYSICAL AND COGNITIVE  
DEVELOPMENT

10. SOCIAL & PERSONALITY  
DEVELOPMENT

# CHAPTER NINE

## PHYSICAL AND COGNITIVE DEVELOPMENT IN MIDDLE CHILDHOOD

# I. PHYSICAL CHANGES

## GROWTH & MOTOR DEVELOPMENT

- 5 cm to 8 cm in height and about 2.75 kg are added each year
- Large muscle coordination continues to improve; increases in strength and speed; hand-eye coordination gets better
- Increasingly good fine motor coordination enables writing, playing of most musical instruments, drawing, cutting, and many other skills
- Girls are ahead of boys in overall rate of growth
- Girls have slightly more body fat and slightly less muscle tissue than boys
- Sex differences in skeletal and muscular maturation cause girls to be better coordinated but slower and somewhat weaker than boys

# The Brain and Nervous System

Steady increase in the myelination of neural axons across the cerebral cortex

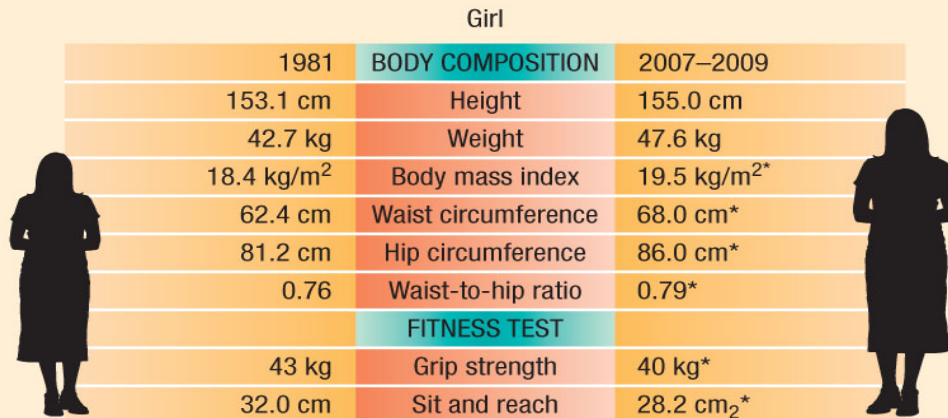
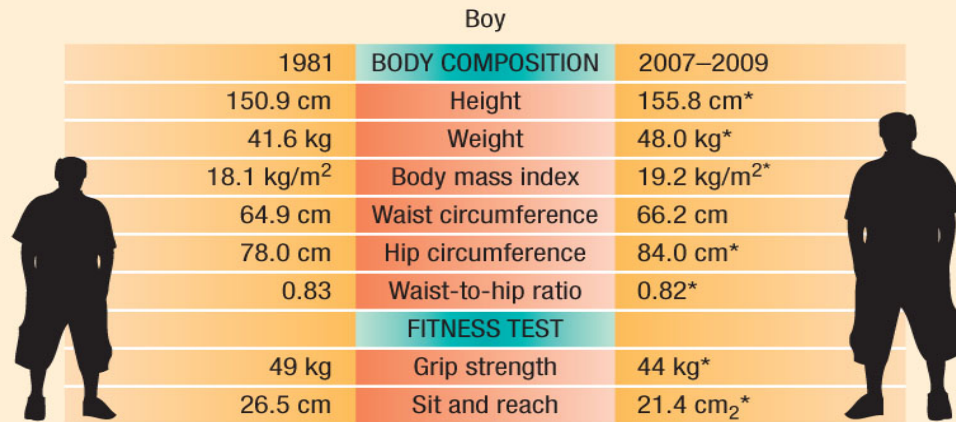
- Sensory and motor areas: striking improvement in fine motor skills and hand-eye coordination
- Frontal lobes (logic and planning)
- Reticular formation (controls attention), making selective attention possible
- Association areas, increasing information processing speed

Right hemisphere lateralization contributes to increased spatial perception

- Relative right-left orientation improves
- Spatial cognition improves: boys score better than girls on spatial orientation tests

# Health Promotion & Wellness

- Sleep disturbance gains importance: by grade 9, 1/3 are tired in the morning
- Healthy Bodies and Weights: ½ of overweight children become overweight adults
- Obesity results from many factors: genetic predisposition, environment that promotes overeating and/or low activity level
- Recommended physical activity: 30 minutes of intense physical activity per day
- Actual physical activity in schools: average 60 minutes per week
- Canadian children are now fatter and weaker today than in 1981



## Figure 9.1

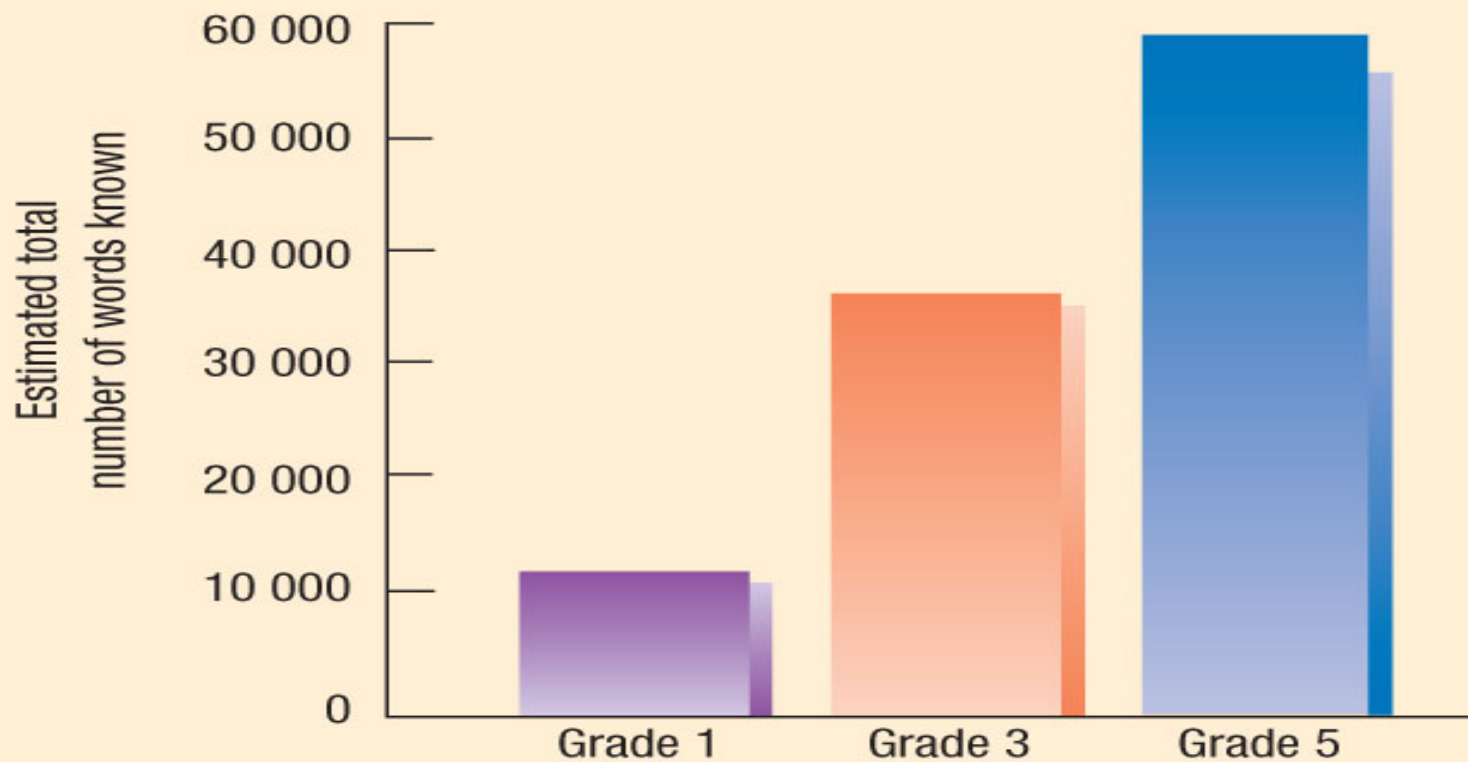
Portrait of Typical 12-year-old Boy and Girl, 1981 and 2007–2009.

*Source:* Tremblay, M.S., Shields, M., Laviolette, M., Craig, C.L., Janssen, I., & Connor Gorber, S., 2010. Fitness of Canadian children and youth: Results from the 2007–2009 Canadian Health Measures Survey (Catalogue no. 82-003-X). *Health Reports*, 21(1), 7–20. Figure 3, p. 9.

# II. COGNITIVE CHANGES

## LANGUAGE

- By age 5 or 6, children master the basic grammar and pronunciation of their native language
- During middle childhood, children learn to maintain the topic of conversation, create unambiguous sentences, and to speak politely or persuasively
- Children continue to add new vocabulary at the rate of 5,000 to 10,000 words per year
- By age 8 or 9, the child shifts to a new level of understanding of the structure of language, figuring out relationships between whole categories of words, such as between adjectives and adverbs or between adjectives and nouns



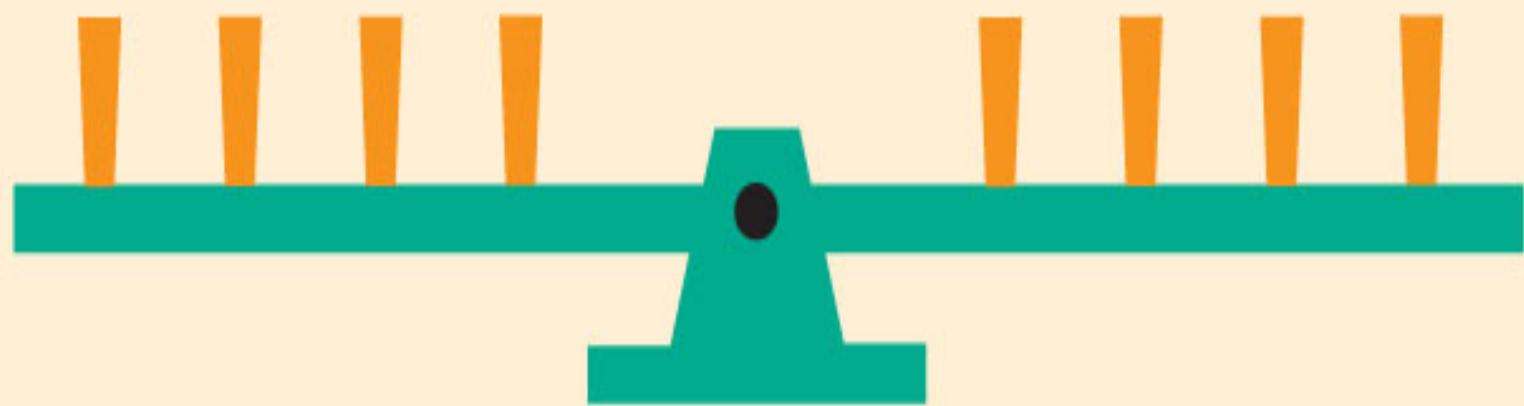
## Figure 9.2

Anglin's estimates of the total vocabulary of children in Grades 1, 3, and 5.

(*Source:* Anglin, 1995, from Figure 6, p. 7.)

# Piaget's Concrete Operational Stage

- In this stage children use schemes that enable them to think logically about objects and events in the real world
- Decentration: thinking that takes multiple variables into account
- Reversibility: the understanding that both physical actions and mental operations can be reversed. Understanding hierarchies depends on this
- Increased skill in Inductive logic allows the child to go from a specific experience to a general principle
- Deductive logic is still not strong
- Horizontal Decalage: It takes children years to apply their new cognitive skills to all kinds of problems



## Figure 9.4

This balance scale is similar to what Siegler used in his experiments.

### III. SCHOOLING

- Schooling beginning at age 6 or 7 focuses on 3 R's
- Literacy: the ability to read and write
- Automaticity to identify sound-symbol connections—need for plenty of opportunities to practice translating written language into spoken words
- Poor readers may need specific help with sound-letter combinations (phonics)
- *Balanced approach*: reading instruction that combines phonics instruction with other strategies (e.g. whole language)
- Learn-ing about meaningful word parts helps children to better understand what they read
- Comprehension strategies are needed
- Grammar and writing techniques must be taught

# Measuring Achievement

- Achievement test: a test designed to assess specific information learned in school
- Assessment: formal and informal methods of gathering information that can be used for programming to improve student learning (there are no grades or marks associated with assessment)
- Evaluation: the process of assigning a grade or mark to a student's performance, representing the student's highest, most consistent level of achievement over time

# Achievement & Intelligence (1)

Howard Gardner's theory of multiple intelligences proposes 8 types of intelligence:

Linguistic: ability to use language effectively

Logical/mathematical: facility with numbers and logical problem-solving

Musical: ability to appreciate and produce music

Spatial: ability to appreciate spatial relationships

Bodily kinesthetic: ability to move body in space in a coordinated way

Naturalist: ability to make fine discriminations among the flora and fauna of the natural world or the patterns and designs of human artifacts

Interpersonal: sensitivity to behaviours, moods, and needs of others

Intrapersonal: ability to understand oneself

# Achievement & Intelligence (2)

Robert Sternberg's triarchic theory of intelligence proposes 3 components of intelligence:

Contextual intelligence: has to do with knowing the right behaviour for a specific situation

Experiential intelligence: involves learning to give specific responses without thinking about them

Componential intelligence: is a person's ability to come up with effective strategies

- Sternberg argues that IQ tests measure how familiar a child is with 'school' culture

# Achievement & Intelligence (3)

Daniel Goleman's theory of emotional intelligence has 3 components:

Awareness of our own emotions

The ability to express our emotions appropriately

The capacity to channel our emotions into the pursuit of worthwhile goals

- Children's ability to exercise control over their emotions in early childhood is strongly related to measures of academic achievement in high school

# Learning Disabilities

- 10 to 15% of the Canadian population may experience learning problems that are a continuation of learning disabilities from early childhood
- Learning disability: a disorder in which a child has difficulty in attaining a specific academic skill, despite possessing average to above-average intelligence and is not primarily due to physical or sensory handicaps (see Canadian Definition: Figure 9.6)
- Some neuropsychologists (Fiedorowicz et al) are investigating a neurological basis for learning disabilities

# ADHD

- Causes: root cause is unknown; individual cases of ADHD are likely related to a complex interaction of factors (genetics, temperament, parenting styles, peer relations, the type and quality of school a child attends, stressors in the child's life such as poverty, family instability, and parental mental illness)
- Types of ADHD: (1) Hyperactive/impulsive: a high activity level is the main problem; (2) Inattentive: major difficulty is sustaining attention; (3) Combined
- Treating and Managing ADHD
  - Parental training programs to regain a sense of control: Parents may lose confidence in their abilities, becoming permissive or overly threatening:
  - Stimulant medications: may reduce children's activity levels & control impulses; no evidence for benefit beyond 4 weeks
  - ADHD can improve with training

# CHAPTER TEN

## SOCIAL AND PERSONALITY DEVELOPMENT IN MIDDLE CHILDHOOD

## *DEVELOPMENT*

- The development of self-perceived competence is the overarching theme of social and personality development in middle childhood
- Developmentalists representing different theoretical perspectives emphasize different sets of factors in their explanations of the development of self-perceived competence in these years

# Psychoanalytic Perspectives

- Freud believed the challenge of the middle childhood years was to form emotional bonds with peers and to move beyond those that were developed with parents in earlier years
- Erikson: Industry versus inferiority stage: the fourth of Erikson's psychosocial stages, during which children develop a sense of their own competence through mastery of culturally defined learning tasks

TABLE 10.1

## The Big Five Personality Traits

Trait	Qualities of Individuals Who Show the Trait	Possible Temperament Components
Extraversion	Active, assertive, enthusiastic, outgoing	High activity level, sociability, positive emotionality, talkativeness
Agreeableness	Affectionate, forgiving, generous, kind, sympathetic, trusting	Perhaps high approach/positive emotionality, perhaps effortful control
Conscientiousness	Efficient, organized, prudent, reliable, responsible	Effortful control/task persistence
Neuroticism (also called emotional instability)	Anxious, self-pitying, tense, touchy, unstable, worrying	Negative emotionality, irritability
Openness/Intellect	Artistic, curious, imaginative, insightful, original, wide interests	Approach, low inhibition

(Sources: Ahadi & Rothbart, 1994; John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994, Table 1, p. 161, McCrae & Costa, 1990.)

## *II. SELF-CONCEPT*

- Across the years from age 6 to 12, children's understanding of themselves improves quite a bit and, by the end of the middle childhood period, children's self-concepts include two new components: a psychological self and a valued self

# The Psychological Self

- Understanding of own stable, internal traits
- In middle childhood, the psychological self becomes increasingly complex, abstract, comparative, less tied to external features, and more centred on feelings and ideas
- Self-efficacy: an individual's belief in her capacity to cause an intended event to occur; peer models play a primary role in the development of self-efficacy beliefs; encouragement from knowledgeable people that children value and respect also contributes to self-efficacy; influenced by real life experiences

# The Valued Self

- Self-Esteem: the global evaluation of one's own self worth; self-esteem in middle childhood and adolescence is quite stable in the short term but less so over periods of several years
- How self-esteem develops: both a low perceived discrepancy between the ideal and actual selves, and social support are needed to influence self-esteem
- Children develop meaningfulness of who they are as humans in the world by being involved in interdependent, respectful, trusting relationships with the social and natural world (spirituality)

### *III. ADVANCES IN SOCIAL COGNITION*

- By the end of the middle childhood period, children have developed a much broader understanding of others than they possessed at its beginning and are beginning to understand the moral aspects of social relationships
- A 6- or 7-year-old, when describing others, will focus almost exclusively on external features such as what the person looks like, where he lives, what he does
- At age 7 or 8, the child begins to focus more on the inner traits or qualities of another person and to assume that those traits will still be visible in many situations

# IV. SOCIAL RELATIONSHIPS

- School-aged children's growing ability to understand others changes their social relationships in important ways
- Children continue to be attached to parents, but they are becoming more independent
- Relationships with peers become more stable and many ripen into long-term friendships

# Family Relationships

- School children continue to rely on their parents' presence, support, and affections, despite spending less time with them
- Having family meals is the best predictor of better childhood outcomes including academic success, behaviour and adjustment, & nutritionally superior diets
- High parental expectations + monitoring = greater self-regulatory competence
- Parents model self-regulation behavior
- The authoritative style of parenting is associated with the development of self-regulation

# Friendships

- “Best Friend” becomes part of middle childhood; friendships depend on reciprocal trust by age 10; children are open and supportive with their friends; friends help with problem solving and conflict management
- Boys’ friendship groups: are larger and more accepting of newcomers than are girls’; involve more outdoor play and roam over a larger area; focus more on competition and dominance
- Girls’ friendship groups: are more likely to play in pairs or in more exclusive groups; spend more playtime indoors or near home or school; friendships include more agreement, more compliance, and more self-disclosure, and higher levels of competition between strangers than between friends

My definition of a good friend is someone who you can trust. They will never turn their back on you. They will always be there for you when you are feeling down in the dumps. They'll try to cheer you up. They will never forget about you. They'll always sit next to you at lunch.

### Figure 10.3

This essay on friendship written by a 10-year-old illustrates the way older school-aged children think about friends.

(Courtesy of Denise Boyd. Used with permission.)

# Patterns of Aggression

- Physical aggression continues to become less common as children learn the cultural rules about when and how much it is acceptable to display anger or aggression
- At every age, boys show more physical aggression and more assertiveness than do girls
- Relational aggression: aggression aimed at damaging another person's self-esteem or peer relationships, such as by ostracism or threats of ostracism, cruel gossiping, or facial expressions of disdain
- Retaliatory aggression: aggression to get back at someone who has hurt you

# Social Status

- Researchers describe social status in 3 groups: popular, rejected, and neglected
- Attractive children and physically larger children are more likely to be popular
- Being very different from ones' peers may also cause a child to be neglected or rejected
- Shy children usually have few friends, and highly creative children are often rejected, as are those who have difficulty controlling their emotions
- Children's social behaviour seems to be more important than looks or temperament

# After-School Care

- Self-care children: children who are at home by themselves after school for an hour or more each day
- Self-care children are more poorly adjusted in terms of both peer relationships and school performance
- Children under the age of 9 or 10 should not care for themselves as they are less able to cope with emergencies
- Self care is most negative for children in low income neighbourhoods with high crime rates