

# Kotahitanga | Holistic Development

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## The first principle is Kotahitanga | Holistic Development

A good understanding of child development is needed to support children. Generally, a holistic lens is most helpful, being comprised of physical, emotional, social, cognitive and spiritual domains. This recognises two key things: firstly, that these areas are all interconnected, and secondly, that development does not necessarily follow a straight line at all times. Te Whāriki highlights the essential nature of the spiritual dimension for Māori, in that it “connects the other dimensions across time and space” (Ministry of Education, 2017, p.19).



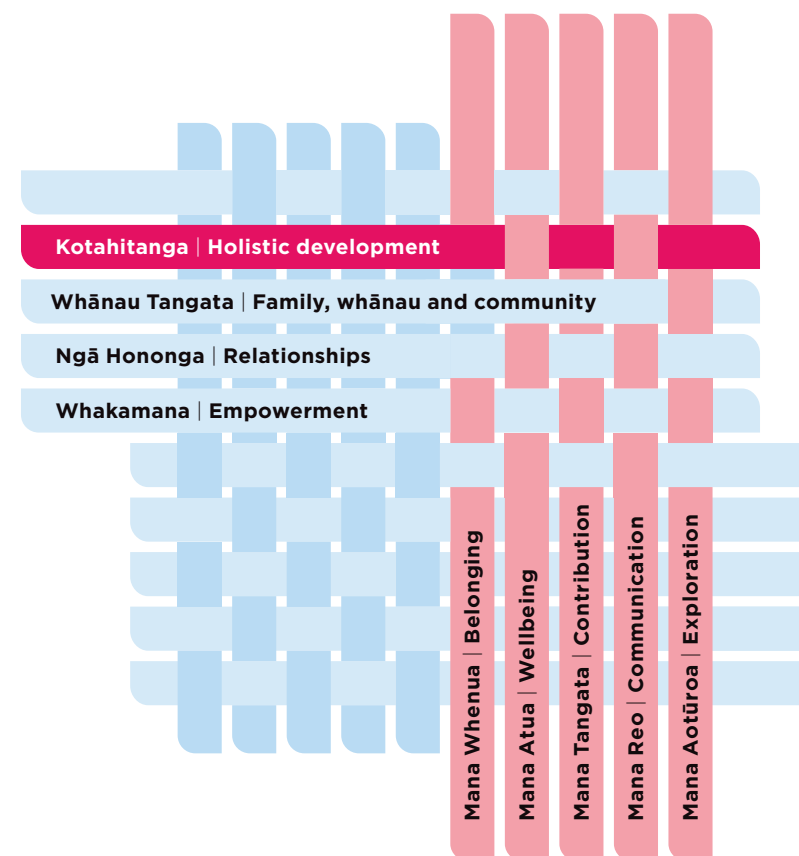
**“Although the preschool years establish the base for future development, experiences in middle childhood can sustain, magnify, or reverse the advantages or disadvantages that children acquire in the preschool years. At the same time, middle childhood is a pathway to adolescence, setting trajectories that are not easily changed later.”**

(Huston & Ripke, 2006, p.2)

Almost 40 years ago a major review into middle childhood took place in the United States, led by a panel established by the Committee on Child Development Research and Public Policy at the National Academy of Sciences. Researchers concluded:

Middle childhood behaviour and performance have repeatedly been found to predict adolescent and adult status, including social and personal dysfunction, more reliably than do early childhood indicators, and this predictiveness increases over the years from 6 to 12. (Collins, 1984)

According to Huston & Ripke (2006), this finding “contradicted two widespread notions” which we believe a lot of people continue to think today: “that a child’s future is shaped in early childhood and that little of interest happens in middle childhood compared with “coming of age” in adolescence. (p.1)”



The value of understanding and supporting children’s holistic development during middle childhood is crucial. But a consistent lack of attention on this age stage means that understanding our five to 12-year-olds now requires a weaving together of traditional and emerging knowledge.

Greater importance must be placed on developing good understanding specific to this age stage and our context of Aotearoa. This understanding must be from good evidence, and local and current research. And as this develops, the knowledge should be shared with children, their families, and the workforces they encounter in the process of their development.

## Mana Whenua | Belonging

Within Te Whāriki, Mana Whenua (belonging) is the importance of children feeling a sense of place and their links to family and the wider world – their *turangawaewae*. Children's sense of identity is forming during middle childhood as their awareness and understanding of cultural and social values develops. They are also shaping their own views about society as their ability to think critically grows.

Mana Whenua underpins holistic development, and is a protective factor for children's mental wellbeing (Fletcher et al., 2023).

The quote below makes the point that belonging, connection and attachment continue to matter as children move into middle childhood. Belonging matters for physical and neurological development and is often seen in social and emotional behaviours. Our ability to create environments that foster belonging are also supported by the prioritisation of Te Ao Māori principles.

## Te Ao Māori Perspective

Within Te Ao Māori, child development is underpinned by the following principles:

### Mana and Mana Tamaiti (Tamariki)

In Te Ao Māori, tamariki are considered taonga – a precious gift connecting past, present and future generations. Early European accounts of Māori whānau show that tamariki were treated with adoration and indulgence, in contrast with the more reserved European approach to child-rearing at that time (Salmond, 2017).

Mana builds on the concept of tamariki as taonga who possess power, influence, and prestige (Rameka, 2015).

According to Mana Mokopuna (Children & Young People's Commission) (2017) mana tamaiti refers to “the intrinsic value and inherent dignity derived from a child's or young person's whakapapa (genealogy) and their belonging to a whānau, hapū, iwi, or family group, in accordance with tikanga Māori or its equivalent in the culture of the child or young person”. In short, that children have their own value, resulting from their whakapapa and the communities in which they belong.

**“Children's brains hunger for social connection and the feeling of belonging. When children do not sense that they belong and when they struggle to reconcile irregularities in their environments, their brains are malnourished and fail to develop in healthy ways”** (Annan, 2022, p.185)

## Whakapapa

**“He Tupuna he mokopuna. Mā wai i whakakī i ngā whawharua o ngā mātua Tupuna? Mā ā tātou mokopuna! He mokopuna he Tupuna.**

This whakataukī draws us to the essence of the whakapapa relationship between generations. It asserts that we are all mokopuna and we are all tupuna. The mokopuna will in future generations take the place of the tupuna. All grandchildren in time become grandparents. Each generation links through whakapapa to each other and we are a reflection and continuance of our ancestral lines” (Cameron et al., 2013, p.4).

Whakapapa is the genealogical link that connects tamariki or mokopuna (grandchildren) to tupuna (ancestors), whānau and whenua (land). Through these links tamariki inherit traits such as tapu (sacredness), mana (status/power), mauri (life force) and wairua (spirit). These provide mokopuna with their sense of belonging, identity, and contribution within their community. Knowing and maintaining connection to these links are considered essential for the wellbeing of tamariki. (Greensill et al., 2022), (Rameka, 2015).

## Whānau

**Responsibility for the wellbeing, nurturing and development of tamariki is shared by the child’s community collectively.**

Grandparents and wider whānau members play an active role in the care of mokopuna and their holistic development, including the sharing of knowledge and tikanga.

In Te Ao Māori, tamariki wellbeing can’t be viewed independently of the wellbeing of their wider whānau and community.

**“...raising a child is not an individual endeavour, but rather a job for the whole community....any consideration of wellbeing for tamariki Māori must necessarily consider the role of whānau and importantly the wellbeing of the whānau collective.”** (Pihama et al., 2019, p.5)

## Cognitive Development

Middle childhood is considered a ‘sensitive period’ of brain development, where experiences children have during this period continue to have a strong impact on their development. During sensitive periods of brain development experiences impact how information is processed or represented within the brain. Also, children’s behaviour and beliefs about themselves and the world come from the way their brain adapts to this information. (Knudsen, 2004) (Mah & Ford-Jones, 2012).

During middle childhood connections within the brain continue to develop through neuron generation, myelination, and synaptic pruning. Neurons are nerve cells that convey messages throughout a child’s body. Myelination is where a sheath forms around nerve fibres, increasing the speed and efficiency of nerve impulses. Synaptic pruning also increases the efficiency of the brain by eliminating unused connections. (Johnson et al., 2009)

Specific developments across this age include maturing of the corpus callosum, the connection between the two hemispheres (sides) of the brain. This enhances children’s ability to carry out tasks that use both left and right brain hemispheres. Myelination also occurs in the areas of the brain connecting sensory, motor and intellectual functioning. This increases the information processing speed within the brain and children’s reaction times (Paris et al., 2021; Pye et al., 2022).

Brain development is influenced by the experiences children have during early and middle childhood. Children are shaped by learning opportunities, relationships that nurture them, friendships they form, interactions with peers, the extent to which they feel safe, the social and cultural context they exist within and the way in which they establish meaning from their experiences.

**“Although the brain has various innate structures that carry out particular functions, such as moving, speaking and reasoning, the precise nature of connections between the parts is primarily shaped by experience”. (Annan, 2022, p. 43)**

Aspects of children’s development during middle childhood include:

### Executive Function

Developments in the prefrontal cortex enable the advancement of executive function during middle childhood.

Specific areas of advancement during middle childhood include:



Aspect of executive function	Example
Working memory	remembering directions, instructions, someone’s name, or thinking up the answer to a question asked by a teacher
Planning and prioritisation	being able to break down a task into steps to complete, identifying what is most important from a range of tasks
Organisation	being able to arrange information or things in a systematic way, this might look like a child keeping their room tidy, or being able to organise their thoughts into a story, being able to sort items into categories or groups
Time management	completing a task within a given time-frame, getting ready for school on time
Response inhibition	ignoring a distraction or stopping a thought or action based on context
Emotional control	regulating emotions based on context, developing strategies to cope with emotional stress
Sustained attention	being able to remain focused on a task, or ignore irrelevant information
Task initiation	beginning a chore or piece of schoolwork, motivating oneself to begin something difficult or unpleasant
Mental flexibility	the ability to change from one task to another, or adapt to a change in plans, problem-solving
Self-monitoring	the ability to assessing performance against expectations

(Ballagh, 2023) (Leaver, 2022)

The initial years of middle childhood have been referred to as the '5-7-Year Shift' or the 'age of reason', marking the transition that occurs as children move from early childhood to middle childhood. At age seven, children are typically more able to think rationally and self-regulate sufficiently to engage in formal academic learning, or in some parts of the world, the workforce (Arnett et al., 2020; McAdams, 2015).

Early adolescence (around ages 10-12) sees children's abilities in planning, logical thinking and decision-making. At this age children are better able to control impulses or inhibit behaviour, however the part of the brain that controls these functions does not fully mature until adulthood. (Tooley et al., 2022) (Fraser-Thill, 2022).

Rebekah Ballagh's book **Let's go, Flo!** (2023) is a great resource to help adults and tamariki explore executive function in more detail.

## Social Awareness

**"Social cognition is the way in which people process, remember, and use information in social contexts to explain and predict their own behaviour and that of others."**

(Bulgarelli & Molina, 2016)

As the prefrontal cortex develops, children become better able to navigate their social world. This is called **social cognition**. They develop the ability to recognise and understand social signals and the expected response to those signals. This function also relates to motivation and reward, as children learn to understand how their behaviour may be received and then use this information to respond to their context. (Uytun, 2018)

Emotional recognition is another key aspect of social cognition that develops during middle childhood. Emotional recognition enables children to identify and recognise other people's emotions based on body language such as facial expressions and vocal cues. Current thinking in this area has developed from traditional understandings of attachment theory. In particular, how facial and body cues can help us navigate our social worlds. Emotional recognition is considered to be critical to children's social development and emotional regulation during middle childhood as children learn what behaviours and expressions of emotion are socially acceptable, and as friendships become more complex and take on greater importance in children's lives (Garcia & Tully, 2020).

During middle childhood children grow in their ability to consider things from another person's perspective. A key aspect of this is the development of theory of mind. Theory of mind is how we understand other people's mental state in relation to ourselves, and the world around us. **Theory of mind** grows during middle childhood by developments in the brain (e.g. language, executive function) and environmental factors (family, cultural and educational context) (Wang, Devine, Wong & Hughes, 2016).



## Friendship

Friendships are a focus for children as they become more independent. They have typically moved from playing alongside each other to cooperative play with other children. This leads to increased importance being placed on friendship with more of an awareness of similarities and differences.

Relationships and friendships tend to be a place for children to test developing interpersonal skills, as well as learning about their own personality and preferences. Children develop communication and negotiation skills (taking turns, giving/receiving, sharing, compromise, conflict resolution), the ability to initiate interactions or play with others, and greater awareness of others' feelings and needs. It is common for children to have challenges with establishing, maintaining, and changing friendships and they may want support to navigate these experiences and the feelings associated with this.

During middle childhood children begin to notice social and peer-group norms. They may test out changing their behaviour to gain or keep friends. Children's play becomes more gendered – they are more likely to play with children of the same gender and more likely to reflect gendered norms in their play such as role-playing stereotypical gender roles.

**“Just being around other children, however, is not enough. The development of friendships is essential, as children learn and play more competently in the rapport created with friends rather than when they are dealing with the social challenges of interacting with casual acquaintances or unfamiliar peers.”**  
(National Scientific Council on the Developing Child, 2004, p.2)

Friendship is a primary motivator for children's school attendance, with 80% of students in a survey conducted by the Education Review Office (2022) saying that seeing and spending time with friends is a reason for attending school.

Bullying, behaviour that involves a misuse of power, is persistent and causes deliberate harm to another person, may become an issue for children in middle childhood. See more about bullying on page 86 in our Ngā Hononga section.

Two key hormonal developments that occur during middle childhood are:

### Adrenarche

Between six and eight years of age, children's bodies enter a stage called Adrenarche. The adrenal glands (located above the kidneys) begin to increase production of androgens – hormones that affect brain functioning. These hormones impact children psychologically and emotionally but this change is not typically physically obvious. Children may have difficulty managing their emotions and behaviour during adrenarche, becoming more tearful, angry, moody, and argumentative. Adrenarche is thought to occur at least two years before puberty. (Ball, 2022) (Del Giudice, 2018).

### Early Adolescence

**Early adolescence begins with the onset of puberty which begins between the ages of 8-13 for girls, and 9-14 for boys (Marks et. al, 2023).**

Children tend to move from black and white (concrete) thinking towards more abstract thought during this period. They become self-focused and self-conscious as they experience their bodies are physically developing and are more aware how they fit in with others. Early adolescence sees children growing in independence and seeking greater privacy. Peer relationships become more of a priority in this period, as children shift away from family as their primary influence. While cognitive functions are well-developed in children at this stage, they may continue to find it difficult to regulate their emotions and may engage in more risky behaviour (Lang et al., 2022).

Physical changes that occur during puberty are discussed on page 25.

— Find out more about [\*Young People's Experiences of Puberty\*](#)

## Social & Emotional Developmental Milestones

The following are general developmental milestones that often happen at the specified ages. In reality, children will reach these milestones at a variety of ages. While developmental milestone guides for early childhood are prevalent, this information is less accessible for middle childhood in Aotearoa.

### Developmental Domain

AGES 5, 6, 7, 8

AGES 9, 10, 11, 12

#### Generalisations

- Beginning of formal education
- “5-7 Shift” – the increased ability to reason
- Active contributors to family life
- Transition from early to middle childhood

- “Tweens” or “Pre-teens”
- Transition from childhood to early adolescence
- Increased reliance on peers
- Increased independence from family

#### Hormonal

- Onset of adrenarche

- Onset of puberty

#### Cognitive development

- Grouping information and make links between groups e.g. sorting animals into groups based on physical attributes
- Apply reasoning in more and more complex ways in relation to the physical and social world
- Begin to learn and gain independence in reading, writing and numeracy
- Begin to connect actions with their consequences
- Can draw in 2D and increasingly in 3D
- Curious about how things work and able to seek out, interpret and discuss information
- Begin to connect actions with their consequences
- Can understand and give directions
- Gain understanding of time e.g. tomorrow/ yesterday/this afternoon

- Learn to tell time
- Able to think more logically and abstractly and express thoughts and ideas
- Ability to generalise, problem-solve and reason increases
- Testing of assumptions and ideas
- Able to analyse risks
- Able to read and write independently, and apply mathematical skills in real world situations
- Better able to think of the consequences of an action or situation, and be better prepared to respond

#### Moral development

- Form views about right and wrong
- Consider rules to be fairly concrete
- Value and typically follow rules

- Able to think more abstractly about morality
- Understand that rules exist, but also that they can be flexible

## Developmental Domain (cont.)

AGES 5, 6, 7, 8

AGES 9, 10, 11, 12

### Attention

- Attention and cognition improve due to maturing of the prefrontal cortex
- Can focus attention on something and ignore irrelevant information or events happening around them
- Different aspects of attention (alertness, set, spatial attention, sustained attention and interference control) develop between 6 years and 9 years
- Impulsivity considered a normal for this age group

### Friendship

- May seek a "best friend"
- Children tend to form friendships with children of the same gender
- Children are developing friendships based on shared interests

### Social

- Identify and recognise other people's emotions based on body language and vocal cues
- Begin to understand different viewpoints and consider others' feelings and perspectives
- Develop awareness of feeling embarrassed
- Increased sense of empathy
- Enjoy role play and being dramatic
- Enjoy playing games and participating in group activities
- Develop their own games, rules and competitiveness
- Social hierarchies emerge
- Hierarchies/popularity beginning to form, and gain in importance
- Greater communication skills enable increased cooperation with others and ability to handle conflict
- Able to feel multiple and conflicting emotions about the same person, e.g. can be angry at someone they care about
- Learning self-control for their emotions, and closeness and distance within relationships
- May experience greater sense of awkwardness as they navigate social norms in relation to increased peer influences and pressure
- Prefer to play with others than alone
- Developing ability to manage own emotional expressions in relationships, and increase in competitiveness, joking and aggression

### Gender

- Stereotypical gender roles reflected in children's play (e.g. nurturing games, playfighting)
- More likely to play with peers of the same gender
- May become more interested in socialising with children of other gender
- May question gender identity, or identify with a gender that does not align with sex identified at birth

## Developmental Domain (cont.)

AGES 5, 6, 7, 8

AGES 9, 10, 11, 12

Developmental Domain (cont.)	AGES 5, 6, 7, 8	AGES 9, 10, 11, 12
Language	<ul style="list-style-type: none"> <li>Language is processed musically up to age 7</li> <li>Vocabulary expands</li> <li>Understanding of how language is used increases</li> <li>Able to follow instructions that involve multiple steps</li> <li>Children begin to use slang</li> <li>Use language more abstractly around age 8, including using and understanding jokes</li> <li>Ability to tell stories – both real and imaginary – develops</li> <li>Able to learn a second language most easily before the age of 7</li> </ul>	<ul style="list-style-type: none"> <li>Language processing speed and fluency increases significantly between ages 9-10 and 11-12</li> <li>Use of humour develops as they grow in understanding of social norms</li> <li>Best chance of becoming fluent in a second language prior to age 10</li> </ul>
Memory	<ul style="list-style-type: none"> <li>Developments in the pre-frontal cortex see working memory grow, adding to skills like the ability to follow directions</li> <li>Children use memory strategies such as rehearsal and organisation</li> </ul>	<ul style="list-style-type: none"> <li>Children's working memory is developed by ages 10-12</li> </ul>
Self-concept	<ul style="list-style-type: none"> <li>More influenced by comparisons to others from age 7</li> <li>Demonstrate pride in their abilities and achievements</li> </ul>	<ul style="list-style-type: none"> <li>More awareness of others opinions</li> <li>May become more competitive, aggressive and sarcastic</li> <li>Growing awareness of own values</li> <li>May become more egocentric</li> <li>May experience a drop in self-esteem around ages 9-10 due to increased self-awareness</li> </ul>
Self-Control/ Self-Regulation	<ul style="list-style-type: none"> <li>Beginning to develop their own strategies for coping in social situations and resolving problems, but still like support from parents and other trusted adults</li> <li>More able to self-regulate and manage their own behaviours</li> <li>Can identify and name a range of emotions</li> <li>Can generally express feelings but may become frustrated or aggressive when upset – but are generally able to manage this better than during early years</li> <li>Behaviour regulation is reinforced by expectations and responses from others around them</li> </ul>	<ul style="list-style-type: none"> <li>Emotional regulation impacted by onset of adolescence</li> <li>Understand behavioural norms and social expectations</li> <li>Able to develop a range of solutions to manage stressful situations</li> <li>Able to identify mixed or multiple emotions</li> </ul>
Responsibility	<ul style="list-style-type: none"> <li>May begin helping with chores around the home</li> <li>Increasingly able to self-organise and take care of possessions</li> <li>Can dress themselves and take on more responsibility for their daily routines e.g. eating, washing</li> </ul>	<ul style="list-style-type: none"> <li>Better at handling responsibilities on their own</li> <li>Moving away from reliance on parents</li> </ul>

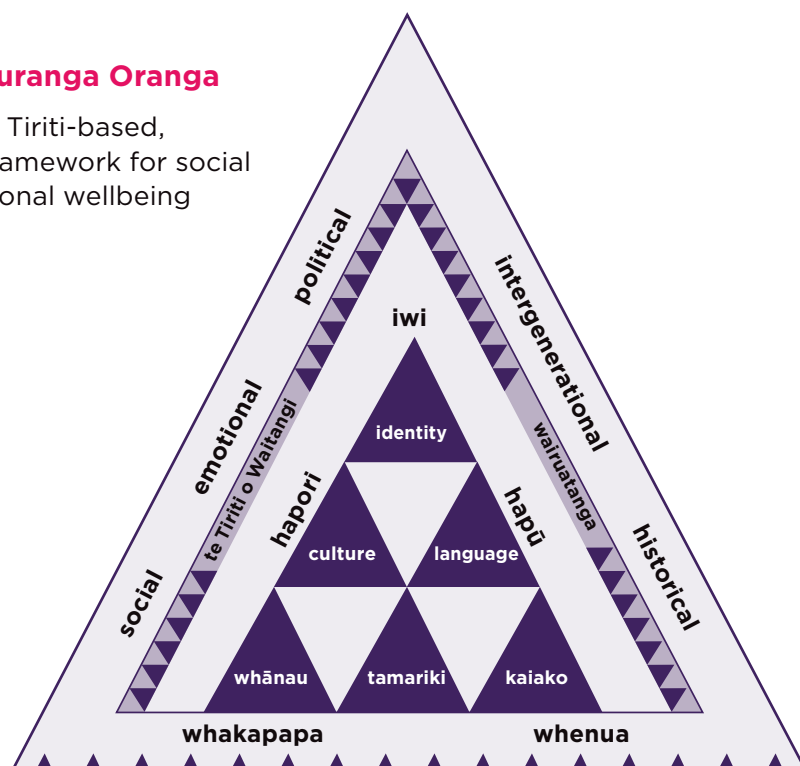
These milestones have been identified through a range of sources which can be found in the bibliography.

## Models of Social and Emotional Development

Models relating to children's social and emotional development during middle childhood include:

### Mātauranga Oranga

– a Te Tiriti-based, ako framework for social emotional wellbeing

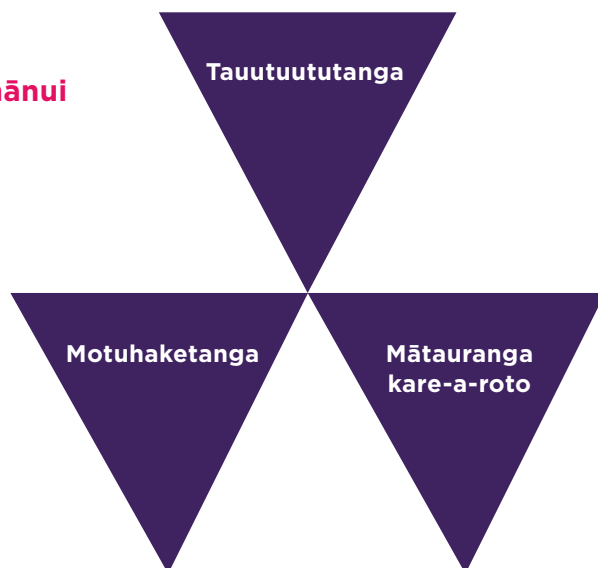


This model has been developed by Fickel et. al (2023) to meet the need for approaches to Social Emotional Learning that incorporate Te Ao Māori perspectives on wellbeing. The process of consultation with kaiako, tamariki and whānau towards shaping this framework identified that **relationships, belonging and feeling connected, and identity and sense of self**, were all central to wellbeing.

“The pattern reflects the understanding that whakawhanaungatanga, which is the process of developing and sustaining relationships with oneself and others, is the foundation of wellbeing. Whakawhanaungatanga is represented through whakapapa and whenua, and the interconnections between tamariki, whānau, and kaiako within the wider embrace of hapori (communities), hapū, and iwi. Wellbeing is influenced by and fostered through te taiao, the social, emotional, political, intergenerational, and historical aspects of the world we live in. Te Tiriti o Waitangi and wairuatanga run throughout the model, representing their centrality. The model reflects the depth, complexity, knowledge, and understanding required to promote and maintain te Tiriti o Waitangi partnerships and relationships within an educational context, and in doing so embraces all peoples.” (ibid. p.9)

The three triangles within the Mātauranga Oranga framework represent Ako Torowhānui – a “culturally responsive and sustaining construct of Social Emotional Learning” (p. 9). Communication, understanding emotions and emotional states, and normalising and reframing social-emotional experiences, were found to be important attributes of social emotional learning and these are reflected in the following Māori concepts:

### Ako Torowhānui



**Tauutuututanga:** this concept represents the importance of reciprocal communication which is underpinned by respect and empathy.

**Motuhaketanga:** this concept reflects the “interconnection of autonomy, independence and self-guidance” (p.10).

**Mātauranga kare-a-roto:** this concept reflects the understanding of emotions and emotional states that is needed to enable positive self-reflection and relationships.

— Find out more about [Mātauranga Oranga](#)

### Social and Emotional Competencies

**The Collaborative for Academic, Social, and Emotional Learning (CASEL) model of social and emotional competencies is one of the most prevalent models referred to in an educational context.**

The CASEL framework comprises five competencies relating to social and emotional learning (SEL):

**SELF-AWARENESS:** The abilities to understand one’s own emotions, thoughts, and values and how they influence behavior across contexts.

**SELF-MANAGEMENT:** The abilities to manage one’s emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations.

**SOCIAL AWARENESS:** The abilities to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures, & contexts.

**RELATIONSHIP SKILLS:** The abilities to establish and maintain healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups.

**RESPONSIBLE DECISION-MAKING:**  
The abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations.  
(Source CASEL, 2020, p.2)



The CASEL approach seeks to embed these competencies into settings children engage in through a partnership approach between the classroom, school, home, and the community.

**“SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions”. (CASEL, 2020)**

The CASEL model has been used in many educational contexts to guide the teaching and assessment of SEL. View how these competencies relate to the New Zealand Curriculum Key Competencies [here](#).

— [Find out more here](#)

This [article](#) by Denston et. al (2022) explores the relationship between social emotional learning approaches such as the CASEL model and culture, noting that most approaches to social emotional learning are based on universalistic concepts of wellbeing. This research finds that in an Aotearoa context, “culture, language, and identity are fundamental to understandings of wellbeing in students....these elements can contribute to developing relationships among students, teachers, and whānau, in a mutually reinforcing manner (p.17). This work supports the need for concepts such as the Mātauranga Oranga framework above, which has been shaped by a Te Ao Māori understanding of wellbeing.

## 7 Dimensions: Children’s Emotional Wellbeing

– Jean Annan, 2022

Jean Annan is an Aotearoa-based psychologist who established the 7 Dimensions: Children’s Emotional Wellbeing framework.

This framework brings together knowledge about child development and neuroscience to identify seven ‘dimensions’ of children’s wellbeing framed around three key themes of safety, experience and meaning. Annan’s framework suggests that children seek the answer to seven fundamental questions as they develop, as outlined in the table below. While Annan’s book primarily explores use of this framework in educational settings, her work is a useful model for anyone caring for or working alongside children.

Level	Dimension	Question
SAFETY	Safety	Do I feel safe (socially, emotionally and physically)?
EXPERIENCE	Alliance	Is anyone at my side?
	Positive experience	Is my experience pleasurable?
	Consistency	Can I discern and predict patterns of interaction in my environment?
	Optimal disequilibrium	Am I stimulated by the activities present, but not overwhelmed?
MEANING	Self-narratives	Who am I?
	Belonging	Do I matter to anyone or anything?

(Annan, 2023, p.11-16)

— [Find out more about 7 Dimensions: Children’s Emotional Wellbeing](#)



## Mana Atua | Wellbeing

**Middle childhood is an important period in children's development – those who are thriving in this age stage are well set up for long-term wellbeing**

(Carr, 2011)

Mana Atua | Wellbeing goals for children are that their health is promoted, their emotional wellbeing nurtured, and that they are kept safe from harm. This happens when wellbeing frameworks are holistic, current, and have good understanding of children's physical, social, cognitive, and spiritual development and health.

## Holistic Models of Development

Holistic theories of development tend to include physical, social/emotional, relational, and cognitive aspects of a person's development, and increasingly also explore how their environment shapes their development. Many cultures will also include spiritual development into a holistic framework of development.

The following are some examples of holistic models of development that are commonly applied in an Aotearoa context. It is important to note that these models are not specifically children's models and are applied across the lifespan:

### Te Whare Tapa Whā

Probably best known, and most frequently used, Tā Mason Durie developed Whare Tapa Whā in 1984.

It is a model of four taha or walls that need to be balanced equally for wellbeing to be achieved. These taha are whānau (family health), tinana (physical health), hinengaro (mental health) and wairua (spiritual health).

- *You can read more about this model [here](#)*
- *An example of how this model can be used with children can be found [here](#):*

[Using Te Whare Tapa Whā for learning about wellbeing: activities for year 1-8 ākonga](#)

[Fill My...Whare Tapa Whā](#)

## Te Wheke

**This is a Māori model of wellbeing developed by Rangimārie Rose Pere in 1997.**

Through the framing of an octopus's eight tentacles, Te Wheke represents eight interrelated aspects of life that must be supported to maintain wellbeing: whānau (family), waiora (wellbeing for the individual and family), wairuatanga (spirituality), hinengaro (mind), taha tinana (physical body), whanaungatanga (extended family), mauri (life force) mana ake (identity), hā a koro ma, a kui ma (breath of life from forebearers), whatumanawa (the open and healthy expression of emotion).

— *You can read more about this model [here](#)*

## Fonofale

**Fonofale is a Samoan model of health that encompasses components viewed as essential to wellbeing.**

Framed around the model of a fale (house), Fonofale positions cultural beliefs and values as the roof providing shelter, and family as the foundation of wellbeing. The Fonofale model integrates spiritual, physical and mental dimensions of health as well as a fourth dimension named 'other' which incorporates factors that might influence health such as sexual orientation and socioeconomic or employment status. These dimensions connect the roof and the foundation together. (Ministry of Health, 2008)

— *An example of how this model can be used with children can be found here: <https://sparklers.org.nz/activities/my-fale-house/>*

## The Fonua Model

**This is a Tongan model of wellbeing developed by Sione Tu'itahi in 2009.**

This model comprises five interdependent dimensions of life which must all be supported in order to maintain harmony and wellbeing:

1. Atakai (environment)/Mamani (global)
2. Kainga (community)/fonua (national)
3. Sino (physical)/kolo (local)
4. Atamai (mental)/famili (family)
5. Laumalie (spiritual)/taautaha (individual).

This model also recognises four phases of development: Kumi Fonua/exploratory, Langa Fonua/formative, Tauhi Fonua/maintenance, Tufunga Fonua/reformation. (Health Promotion Forum of New Zealand, 2023)

— *Read more about the Fonua Model [here](#)*

There are many other holistic models of health that have been developed to represent a particular culture and what it values. Generally, these include physical, mental, social/emotional, and familial or community wellbeing. Many also include aspects of faith or personhood.

None seem to have been developed specifically for tamariki in their middle years.



## Physical Development in Middle Childhood

The following are general developmental milestones that often happen at the specified ages. In reality, children will reach these milestones at a variety of ages. While developmental milestone guides for early childhood are prevalent, this information is less accessible for middle childhood.

Age/Stage	Key Developments
5-6	<ul style="list-style-type: none"> <li>Growth slows and remains steady – typical annual growth rates: 5-6cm in height and 2-3kg in weight</li> <li>Gross and fine motor skills mature. Especially coordination, reactivity, attention, and cognition</li> <li>Gross motor skills improve through involvement in play and sport</li> <li>Bodies grow stronger, more coordinated, and agile</li> <li>Immunity strengthened from natural development and completion of preschool immunisations</li> <li>Loss of first baby teeth</li> <li>Drawings become more detailed</li> <li>Increased bilateral coordination enables skipping, balancing on one foot etc</li> <li>Walk and jump backwards</li> <li>Vocabulary comprises over 2,000 words</li> </ul>

Age/Stage	Key Developments
6-7	<ul style="list-style-type: none"> <li>Muscles develop further and begin accumulating fat</li> <li>Boys tend to have slightly more muscle than girls do, while girls tend to have more body fat than boys</li> <li>Accurately colour in and cut out shapes</li> <li>Able to run faster and longer due to increased lung capacity</li> <li>First permanent molars arrive</li> <li>Adrenarche begins (see page 15)</li> <li>Maturing of the tube that connects the ear to the nose (the Eustachian tube) resulting in fewer ear infections</li> <li>Can ride a bike without training wheels</li> </ul>
7-8	<ul style="list-style-type: none"> <li>Brains reach their adult weight by age 7</li> <li>The number of brain cells a person has (grey matter volume), representing the parts of the brain where processing occurs, peaks at age 7.</li> <li>Connections within the brain, enabling communication between different parts of the brain and the body, continue to grow throughout middle childhood</li> <li>Fine motor skills develop to the point of near maturity e.g. advances in their ability to write and draw etc</li> <li>Similar athletic ability irrespective of gender until around age 8</li> <li>Ability to throw and catch improves with increased hand-eye coordination</li> </ul>

Age/Stage	Key Developments
8-9	<ul style="list-style-type: none"> <li>Onset of puberty in girls from age 8 onwards: development of breasts and pubic hair, skin changes, increase in body fat in advance of a growth spurt, darkening of genitals</li> <li>Average onset of shortsightedness in children (child myopia)</li> </ul>
9-10	<ul style="list-style-type: none"> <li>Increased changes within the brain (synaptic pruning and myelination), particularly regarding emotional regulation and reward processing</li> <li>Onset of puberty in boys: increased genital size, development of pubic hair, voice deepening, production of sperm begins, increased body odour, facial hair develops</li> </ul>
10-11	<ul style="list-style-type: none"> <li>Children's development rates vary more widely – girls are likely to experience a growth spurt around age 10</li> <li>Typical annual growth rates may increase to up to 9cm in height during puberty</li> <li>Increased risk of injury during puberty due to bones growing faster than muscles</li> </ul>

Age/Stage	Key Developments
11-12	<ul style="list-style-type: none"> <li>Average peak of growth rate in terms of height occurs 2 years following the onset of puberty in girls. (For boys this occurs between 12-15 years)</li> <li>Menstruation typically occurs 2-2.5 years after breast development begins. Almost 50% of girls in New Zealand are likely to have begun menstruation prior to beginning secondary school</li> <li>Girls grow up to another 5cm following the beginning of menstruation and are physically fully grown around 2 years later</li> <li>Loss of all primary teeth by the age of 12</li> <li>Hand-eye coordination nearly fully mature</li> <li>Diminished coordination due to bones growing faster than muscles</li> <li>Boys may begin a growth spurt following the onset of puberty</li> </ul>

These milestones have been identified through a range of sources which can be found in the bibliography.



## Active Movement

Reporting by Sport New Zealand found that:

**In 2022, 94% of 5–11 year old tamariki had been physically active in play, exercise, active recreation, or sport at least once in the past week.**

The most common activities for tamariki were playing (running around, climbing trees, make believe), running, jogging or cross country, playing on the playground (jungle gym), swimming and playing games (four square, tag etc.).

Activity levels decreased during the **COVID-19** pandemic, particularly in regard to organised activities, but have rebounded in **2022**.

Children's participation in informal play has decreased from **85% in 2018 to 82% in 2022**, predominantly due to older children aged 8–11 being less likely to play independently.

**Busyness was the primary barrier to increasing activity levels, with a quarter of tamariki noting being too busy as a barrier and almost 20% of tamariki indicating they couldn't fit being more active into the family's others activities.**

**59% of tamariki spent seven or more hours active per week, the recommended minimum according to the Ministry of Health Guidelines.**

**For the 2022 period, Sport New Zealand found that children average 11.7 hours of moderate–vigorous activity per week and participate in an average of 5.1 sports or activities per week.**

Boys were generally more active than girls across a range of measures and experienced more noticeable declines in activity during the pandemic.

Reporting across the 2017–2019 period found that children from high-deprivation areas were less likely to meet the minimum activity recommendations and faced barriers to participation in organised activities such as affordability and accessibility.

**The proportion of girls meeting minimum activity guidelines was the lowest to date in 2022 – only 54% of 5–7 year old girls and 55% of 8–11 year old girls meeting this target.**

Children who spent at least seven hours active were found to have greater happiness levels than those who were less active.

**For the 2022 period, Sport New Zealand found that children average 11.7 hours of moderate–vigorous activity per week and participate in an average of 5.1 sports or activities per week.**

— Find out more about children's activity levels in Sport New Zealand's [Spotlight on Tamariki report](#) and the [Active NZ Changes in Participation 2022 report](#)

**“For older tamariki (aged 8 to 11) who would like to increase their participation, the main barriers to doing so are being too busy (25 percent), a preference for other activities (19 percent), the weather (19 percent), competing family priorities (19 percent) and the cost (18 percent).”** (Sport NZ, 2022, p.10)