

Play and learning pack

Gross motor play

An intentional teaching resource

September 2026

This Play and Learning Pack on gross motor play was designed to help early childhood teachers, educators and leaders understand intentional teaching and how to strengthen it in early childhood education and care (ECEC) services.

About the early childhood intentional teaching model and supporting resources

These Play and Learning Packs were used in the Australian Education Research Organisation (AERO)'s [2025 research](#) to develop and test an [intentional teaching model and supporting resources](#). For this research, we used an iterative design-based methodology, working alongside educators from 13 diverse ECEC services. The resources provided information on foundational knowledge, beliefs and practices that support play-based learning with intentionality.

This series of resources supports more effective intentional teaching. These Play and Learning Packs were designed to help early childhood teachers, educators and leaders understand:

- what intentional teaching is
- what it looks like in practice
- how to strengthen it in their settings.

The Play and Learning Packs complement an intentional teaching model AERO developed with ECEC services. The model, the practice resource and the Play and Learning Packs, emerged directly from that research collaboration.

The intentional teaching model and supporting resources bring evidence-based approaches for effective intentional teaching together with the wisdom of educators and teachers to ensure both evidence-informed rigor and usefulness in everyday practice.

How to use this Play and Learning Pack

This pack is intended to support your use of AERO's intentional teaching model and practice resource. Focusing attention on a specific aspect of the program will support you in setting learning intentions for children and broader program goals. Using a stepped approach to guide your reflections supports you in engaging in meaningful planning for individual children and the whole group.



Step 1: Observation and reflection

Spend some time reflecting on the opportunities you provide for gross motor play. This could be a defined area where gross motor equipment is set up or other areas where there are opportunities for gross motor play.

Read the information in this pack and ask yourself:

- What are our learning intentions for this area?
- How are the children playing there now?
- What kind of learning is happening?
- How does the environment support this?

Identify what opportunities you provide for different kinds of physical play, and whether the resources and equipment available create suitable opportunities for challenge and appropriate risk-taking. Consider what other opportunities you could provide.

An interesting and stimulating learning environment provides the foundation for meaningful and engaging play. This, in turn, helps us identify and set meaningful learning intentions.



Step 2: Planning for learning

Use the Intentional Teaching Thinking Tool to identify 'what stands out' from your observations and to plan your learning intentions.

Use your learning intentions to plan what you will do to achieve them.

Record your plans using the Intentional Teaching Planning Format.

Implement your plans.



Step 3: Reflection and evaluation

Continue to implement your plans, reviewing and evaluating them regularly, and using the thinking tool to continue to plan your next steps. Reflect on the impact of your intentions and teaching strategies for educators, children and families.

Gross motor play

Learning how to use your body is a key developmental task for young children. As they grow and develop, children learn how to move and coordinate themselves in increasingly sophisticated ways.

Gross motor skills involve using the large muscles of the arms, legs and torso. They include the ability to coordinate movements into complex actions such as walking, running, jumping and climbing.

While many physical changes in early childhood happen naturally as children grow, teachers and educators can also support and extend children's physical development by:

- providing an environment rich with physical challenges
- actively teaching and demonstrating specific physical skills.

Physical development, however, isn't just about coordination and movement. Physical skills also play a key role in many other aspects of learning, whether it's through enabling social interaction and engagement with others, supporting curiosity and exploration or the development of dispositions such as persistence and adventurousness.

The 'risk-taking' element of physical play is particularly important, as it's when children have opportunities to take small but genuine risks that they develop the ability to judge when a risk is worth taking, and when it isn't.

This is a crucial skill to develop for later life, and one that starts with simple challenges such as jumping from a climbing frame.

The development of gross motor play

Because it's so closely linked to ongoing physical development, physical play looks very different at different stages of childhood. Understanding how young children's physical skills develop and change over time is an essential part of effectively planning for and supporting physical play.

Younger children (Babies and toddlers)

For very young children, physical play is about learning to use their bodies. And in the first 2 years of life, children quickly learn how to coordinate their movements and become mobile. As they sit, crawl, stand, walk and then run, they are motivated by a natural instinct to explore and make sense of their environment.

Gross motor play at this age tends to be very functional. It's often about movement to achieve an end – reaching to grab or touch something interesting, rolling or crawling to get to something interesting or climbing and cruising to reach something interesting.

Children at this age are active explorers who learn through movement and discovery. As they investigate their surroundings, they are developing an understanding of safety, including where it's appropriate to climb and play.

Provide lots of opportunities, both inside and outside, for gross motor play. Things to climb on, over or through, to pull yourself up on, or to balance across. This way, there is always somewhere for children to use their bodies. It's much better to be able to redirect a child who wants to climb over the back of the lounge to a more acceptable alternative than to try to stop them from climbing altogether.

It's also important to remember that for very young children, opportunities for physical play don't have to be on a grand scale. A balance board 10 cm off the ground is a challenge, as is a climbing frame or trestle that is only one or two steps high.

This not only makes it easier to ensure children's safety, but also means that an interesting and challenging play environment can be set up almost anywhere!

Older children (Toddlers, preschoolers and beyond)

Children's physical skills develop quickly and toddlers quickly become expert walkers, runners and climbers. As they do so, they often delight in their newfound skills and love to run or climb for the sheer thrill of it.

Toddlers also tend to be natural explorers – keenly looking for new challenges and opportunities to extend their abilities.

Although they are often cautious when faced with new challenges, toddlers natural drive for independence and autonomy can lead them to overestimate their abilities.

One of the key skills for teachers and educators to master when working with this age group is providing environments that are safe but challenging, and with enough novelty and interest to satisfy even the most curious child.

As children grow older still, their play changes again. While many are still keen to challenge themselves physically, their play becomes less about physicality and more about what their physical abilities enable them to do. For example, playing simple social games such as catch or

chasing or more organised games such as soccer or Duck, Duck, Goose. They may also incorporate elements of fantasy and imagination into their play, or use their physical skills to achieve other ends (e.g., moving large blocks into place to build a cubby or hideout).

One of the challenges for teachers and educators, as children become more competent is to provide opportunities that continue to challenge and extend their growing skills. Without such opportunities, children are well able to create their own challenges – many of which may not be as appropriate or safe as we would like!

Adults' role in gross motor play

Teachers and educators play a key role in balancing children's safety with their need for increasing challenge and opportunities to develop more sophisticated physical skills.

In setting up the learning environment, teachers and educators can provide carefully thought-out and intentional challenges that ensure children's natural instinct towards physical play is encouraged and promoted in acceptable ways.

Adults can also support children's physical play by demonstrating and teaching specific skills. This is important if children are to develop their physical skills effectively. However, we should be careful to ensure such skill development is embedded within a playful context.

Decontextualised skill development isn't always interesting or motivating for children. Skill development that has a purpose and can be used in enjoyable and fun ways once the skill has been mastered is likely to be more successful.

Further resources

- [AERO's Physical Development Learning Trajectory](#): This collection can help you understand how children's physical abilities develop and how you can support this development.
- [Physical Development Learning Trajectory video](#): The accompanying video outlines children's progress in physical development.

Learning potentials of gross motor play

Learning area	Potential learning	Links to learning outcomes
Maths	• Measurement ('How high did I climb?', 'How far did I jump?', 'How fast did I go?') • Comparison (e.g., 'Which one is higher?', 'Which is heavier?') • Counting (e.g., keeping score in a game)	• Confident and involved learners • Effective communicators
Thinking and problem-solving skills	• Planning set-up and placement of obstacle course/climbing equipment (For older children) • Planning building projects with large open-ended resources (e.g., large blocks, loose parts)	• Confident and involved learners
Physical skills	• Development and refinement of important physical skills such as running, climbing, jumping, throwing and kicking	• Wellbeing
Social skills	• Playing together in an informal social group • Turn-taking and cooperating as a team or group in more organised group games	• Identity • Connection • Wellbeing • Effective communicators
Emotional skills	• Taking turns, sharing resources and engaging in social play supports the development of self-regulation and emotional development • Physical exercise and exertion can be calming for some children and/or provide an opportunity to release strong emotions for others	• Identity • Wellbeing
Creativity and imagination	• Opportunities for imaginative pretend play involving physical actions • Expressive physical activity such as dance or other movement experiences	• Confident and involved learners • Effective communicators
Communication	• For more complex games, communication with other players, establishment of roles and rules, etc. • Using movement and physical activity as a means of communication (e.g., dance)	• Connection • Confident and involved learners • Effective communicators

Suggested props and resources

Basic resources

- Climbing equipment (e.g., trestles, boards)
- Manipulative equipment (e.g., balls, hoops, bean bags)
- Bikes, scooters, balance bikes (if adequate space to use these)
- Safety equipment (e.g., soft fall, crash mats, helmets)

Additional resources to support specific kinds of play

Game-specific resources

- Resources to support specific games (e.g., goals for soccer, bats for cricket or baseball, hoop for basketball)

Construction and engineering play

- PVC pipes or tubing
- Outdoor blocks
- Loose parts for building with (e.g., boards, planks, tires, rope, material)

Pretend/Dramatic play

- Dress-ups (e.g., construction vests, hard hats)
- Scarves and other pieces of material

Measurement and maths

- Tape measures, stop watches, timers.



Intentional teaching planning format

This template is informed by AERO's intentional teaching model and practice resource. These resources will support an understanding of intentional teaching and completion of this planning resource.

Group: _____

Date: _____

Area: _____

Context/Background

What has been happening in this area recently? Who has been involved? What learning seems most prominent? What are the children most interested in?

Learning intentions

Front-of-mind (short-term) goals: What is your main learning focus for this area for this period of time? Try to keep this to one to 3 goals max.

Back-of-mind (long-term) goals: What other learning goals are you keeping in the back of your mind in case there is an opportunity to pursue them? Keep this to 5 goals max.

Learning provisions

Resources and materials: What specific resources and materials will you provide to support your learning intentions? How will you set them up?

Learning provisions

Planned experiences: Are there any pre-planned and/or adult-guided experiences you will plan for this area? If so, include details.

Teaching strategies: Based on your learning intentions, what teaching strategies are going to be most important to use to successfully achieve them?

Evaluation

What happened? Remember to focus on what learning occurred rather than just what the children did.

What next? Based on what happened, what is the next phase for this learning? Will you simplify, consolidate, extend or challenge what you have observed? Or will you change your focus and introduce something new?