Australian Education Research Organisation

Play and learning pack

Block corner
(Construction play)

An intentional teaching resource

September 2026

This Play and Learning Pack on block corner 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 block and construction play. This could be in a dedicated 'block corner' or other areas where construction play materials are available.

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 learning?

Identify the opportunities you provide for different kinds of block play, and whether there are enough resources and props to stimulate children's interest and imagination. 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.

Block and construction play

Blocks and block play have been an integral part of early childhood education since its beginnings. For many years, blocks were one of the few 'toys' available for young children. While blocks are no longer as central to early childhood curriculum as they once were, their potential to support learning of all kinds remains undiminished.

Blocks are deceptively simple. At their most basic, they are just pieces of wood cut into different sizes. And yet there is something about them that captures and holds children's attention and allows them to express themselves in so many different ways.

The true beauty of block play is the creativity it inspires. In many ways, this is a function of the simple nature of traditional blocks. By being so plain, they allow the imagination to get to work. Rather than dictating a child's play, they are open to interpretation.

And yet, at the same time, the mathematical proportions and regularity of unit blocks allow them to be used to construct complex yet stable structures, and encourage children to recognise and internalise concepts of size and measurement.

Newer blocks and construction toys are often more complex but are also valuable materials with which to support children's learning. For example, interlocking blocks (like LEGO) allow for more sophisticated and sturdy creations, while magnetic blocks and tiles add a new dimension to simple building.

In planning for block and construction play, look for materials that are open-ended and allow children to use their creativity. Adding props (such as people, animals or vehicles) can help stimulate children's thinking and guide their play. Open-ended materials (such as buttons, pebbles or crystals) can help prompt imaginative decoration and personalisation of their constructions.

The size of the blocks will also change how children play with them:

- Smaller blocks tend to encourage children to work as individuals, building their own small-scale constructions
- Larger blocks tend to encourage more group play as children work together on bigger projects
- Very large blocks, that can be used to build constructions children can get inside of, have a special appeal all of their own. Children love child-sized spaces and will often use large blocks to build cubby houses, hideouts or forts as the basis for dramatic and pretend play.

The development of block play

The development of block play passes through a number of distinct stages that reflect children's developing physical coordination and thinking skills.

Younger children (Babies and toddlers)

For very young children, play with objects (including blocks) is about manipulating these objects to discover what they can do. Very young children may wave, mouth or bang blocks together as they investigate how these objects move, feel and respond to their actions. At this age, children are building knowledge through sensory exploration and discovery.

Following on from this manipulative stage, young toddlers may enjoy carrying blocks from one location to another. Again, this is typical play behaviour with any objects and is not specific to blocks.

The next stage is functional play, using the blocks to create simple constructions. Young children will usually experiment with stacking blocks before using them to build simple enclosures and then 'bridges' that connect separate blocks together. Such constructions may appear simple but demonstrate a higher degree of intentionality on the part of the child and deliberate action to select and place each of the blocks.

After mastering these simple building techniques, children begin to combine them to build larger and more complex structures. These often begin to incorporate simple repeated patterns and symmetry as children test, refine and extend their thinking.

Older children (Toddlers, preschoolers and beyond)

Older children's block play becomes more symbolic and representational as well as more complex. This is the result of the child's growing capacity for imaginative and symbolic thought and the desire to create representations of the world around them.

The constructions that result from this often become scenes for dramatic or pretend play with props such as people, animals or vehicles.

Block play also becomes more cooperative at this age, reflecting children's growing social skills. Groups of children may work together to build and then play with their constructions. This group play also involves a level of planning and coordination as the children decide what they will build and allocate tasks and roles to achieve this. This planning may also be reflected in children's attempts to set challenges for themselves in their play, such as building a tower 'to the roof' or a road 'all the way across the room'.

As well as building increasingly complex and realistic constructions, older children may also remain interested in pattering – using blocks and other construction materials to build complex patterns that involve repeated elements, symmetry and decoration.

Adults' role in block play

Teachers and educators are key facilitators of children's block play.

Setting up block play so that it is inviting and has enough blocks, props and other resources for children to use in meaningful ways provides an essential foundation. Think, too, about how to make the area easy to keep tidy and pack away. Organisation of blocks and other resources with labels to show where they go is not only practical but also encourages the development of spatial recognition and matching shapes as children match blocks to the labels and consider how to fit them back onto the shelf.

Often, an adult presence in the block area is enough to draw and maintain children's interest. Asking questions, making suggestions and offering encouragement are all useful strategies to encourage children's thinking and problem-solving as they build.

Being present in the block area also creates opportunities to introduce and extend children's learning in specific curriculum areas such as maths. Using mathematical language and concepts to comment on children's building is a great way to introduce and encourage children to use such language themselves.

Learning potentials of block and construction play

Learning area	Potential learning	Links to learning outcomes
Maths	• Size and shape • Comparison (e.g., between block sizes) • Counting and estimating (e.g., 'How many blocks will our tower need?') • Patterning • Spatial thinking and problem-solving • Mathematical language	• Confident and involved learners • Effective communicators
Science and engineering	• Understanding principles of balance and stability (physics) • Predicting, planning and estimating what will happen and what will be needed	• Confident and involved learners • Effective communicators
Thinking and problem-solving skills	• Planning construction projects • Working out what blocks to use and how to place them to achieve intended results • Rethinking how to build something if it has collapsed or overbalanced	• Confident and involved learners
Physical skills	• Development and refinement of fine motor skills, hand-eye coordination and dexterity in placement and manipulation of smaller blocks • Gross motor skills when building with large blocks	• Wellbeing
Social skills	• Planning and cooperating on group construction projects • Sharing and negotiating (e.g., resources, safety of buildings)	• 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 • Feelings of pride and achievement in completed projects • Managing frustration and persevering when things don't go as planned	• Identity • Wellbeing
Creativity and imagination	• Creative thinking in design and building of constructions • Pretend play with completed constructions	• Confident and involved learners • Effective communicators
Communication	• Planning and coordinating actions as a group • Use of mathematical, scientific, engineering language	• Connection • Confident and involved learners • Effective communicators

Suggested props and resources

Basic resources

- Unit blocks (sufficient number for children to use meaningfully)
- Additional blocks (e.g., smaller or specialist blocks for adding details or decorations)
- Props such as people, animals, vehicles, trees and street signs
- Organised and clearly labelled storage for blocks and resources

Additional resources to support specific kinds of play

Creativity and inspiration

- Pictures and/or images of buildings to provide inspiration for children's building
- Photos of previous block constructions as a reminder and/or inspiration for children

Construction and engineering play

- Pipes or tubing with marbles or small balls
- Loose parts (e.g., pebbles, crystals, cardboard, fabric scraps)

Pretend/Dramatic play

- Dress-ups (e.g., construction vests, hard hats) for building play with larger blocks
- Props related to specific play themes (e.g., dolls and dollhouse furniture, fire engines and firefighter figurines)

Measurement and maths

- Tape measures and rulers

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?

AERO's work is made possible by the joint funding it receives from Commonwealth, state and territory governments.