

Class: Preschool/Junior Infants

Forthcoming Curriculum (Draft) Progression Continua Milestones: A, B

Strand: Shape and Space (Forthcoming and 1999 curriculum)

Learning Outcome Label (Forthcoming curriculum): Spatial awareness and location; Shape

Video Examples from: Preschool

Goals of this Activity:

Through appropriately playful learning experiences, children should be able to:

- Manipulate a variety of block sizes and shapes to make their own model of a house in a playful way. (*Applying and Problem-Solving*)
- Describe parts of the model in spatial and/or comparative terms, e.g. the door is at the front of the house. Specific language to be developed: *in front of, behind, next to, close to, nearby, straight, curved, edge, arch, cone, taller, shorter, narrower, straighter.* (*Understanding and Connecting; Communicating*)
- Develop fine motor skills and visual discrimination.
- Develop concentration and perseverance.

Key Mathematical Ideas:

- There are special words and phrases that help us to describe the shape and structure of things and where things are in relation to other things.
(Adapted from First Steps in Mathematics: Space)

For Further Information on Key Mathematical Ideas:

- PDST Shape and Space and Measures manual
- NzMaths [Key mathematical ideas by strand and level](#)

Relationship to Aistear:

Theme: Well-being

Aim 4: Children will have positive outlooks on learning and on life.

Relevant learning goal(s):

In partnership with the adult, children will

1. Show increasing independence, and be able to make choices and decisions.
2. Demonstrate a sense of mastery and belief in their own abilities and display learning dispositions, such as determination and perseverance.
4. Motivate themselves, and welcome and seek challenge.

Theme: Identity and Belonging

Aim 2: Children will have a sense of group identity where links with their family and community are acknowledged and extended.

Relevant learning goal(s):

In partnership with the adult, children will

5. See themselves as part of a wider community and know about their local area, including some of its places, features and people.

Aim 4: Children will see themselves as capable learners.

Relevant learning goal(s):

In partnership with the adult, children will

5. Experience learning opportunities that are based on personal interests, and linked to their home, community and culture.

Theme: Communicating

Aim 1: Children will use non-verbal communication skills.

Relevant learning goal(s):

In partnership with the adult, children will

5. Combine non-verbal and verbal communication to get their point across.
6. Express themselves creatively and imaginatively using non-verbal communication.

Aim 3: Children will broaden their understanding of the world by making sense of experiences through language.

Relevant learning goal(s):

In partnership with the adult, children will

6. Develop counting skills, and a growing understanding of the meaning and use of numbers and mathematical language in an enjoyable and meaningful way.

Aim 4: Children will express themselves creatively and imaginatively.

Relevant learning goal(s):

In partnership with the adult, children will

4. Use language to imagine and recreate roles and experiences.
5. Respond to and create literacy experiences through story, poetry, song, and drama.

Theme: Exploring & Thinking:

Aim 1: Children will learn about and make sense of the world around them.

Relevant learning goal(s):

In partnership with the adult, children will

1. Engage, explore and experiment in their environment and use new physical skills including skills to manipulate objects and materials.
5. Develop a sense of time, shape, space, and place.
6. Come to understand concepts such as matching, comparing, ordering, sorting, size, weight, height, length, capacity, and money in an enjoyable and meaningful way.

Aim 4: Children will have positive attitudes towards learning and develop dispositions like curiosity, playfulness, perseverance, confidence, resourcefulness, and risk-taking.

Relevant learning goal(s):

In partnership with the adult, children will

1. Demonstrate growing confidence in being able to do things for themselves.
2. Address challenges and cope with frustrations.
3. Make decisions and take increasing responsibility for their own learning
5. Develop higher-order thinking skills such as problem-solving, predicting, analysing, questioning, and justifying.

Links to Síolta:

Standards – 1, 2.2, 2.5, 2.6, 5.1, 5.2, 6.1.6.2.6.3.6.4, .6.5, 6.6., 6.7, 7.1, .7.2, 7.3, 7.4, 7.6

Relationship to Forthcoming Curriculum (as per 2017 draft):

This table gives an overview of relevant content from the progression continua in the draft of the forthcoming curriculum. The content most relevant to this activity is shown in bold.

Strand: Shape and Space	Learning Outcome Labels: Stage 1			
	Spatial Awareness and Location: Develop a sense of spatial awareness and reasoning		Shape: Visualise and model 2D and 3D shapes and describe their properties	
	Milestone A	Milestone B	Milestone A	Milestone B
Understanding and Connecting	The child, is at present exposed to and experiences a range of appropriate learning activities involving location/position in familiar environments.	Describes the position or location of objects.	Is present at, exposed to and experiences shapes in the environment.	Identifies and recognises shapes in the environment.
Communicating	Is present at, exposed to and experiences appropriate means of communication where attributes and characteristics are conveyed and/or represented.	Moves objects around and describes in terms of spatial relationships.	Is present at, exposed to and experiences appropriate language to describe the properties and appearance of shapes and objects.	Understands and uses language to describe shape and shape functions e.g., curved, straight, roll, stack

Reasoning	Is present, exposed to and experiences activities where objects and/or people are placed in familiar positions or moved to random positions.	Evaluates statements about position or location in the environment e.g. determine if it is correct to say, 'the teddy is under the chair.'	Discriminates between shapes. Identifies and explains when one shape is similar or different to another.	Explains how shapes have been sorted. Justifies why shapes belong or do not belong to certain sets. Selects appropriate criteria for shape sorting.
Applying and Problem Solving	Is present at, exposed to and experiences a range of contexts where movement and positionality are explored.	Solves problems involving location/position in familiar and new environments.	Selects appropriate shapes for a purpose, e.g., a circle to represent a wheel.	Builds and creates structures using solid shapes – describes.

Activity	Key Questions
<p>Set the children up for the building activity by reading a story about houses/buildings. One book which works well is 'Changes, Changes' (detailed below).</p> <p>Invite a small group of children to the construction area. Discuss what they recall of the story. Can they remember what happened? Tell them you would like them to build a new house. If possible, let the children choose figures/characters for whom to build houses. Invite the children to begin building.</p> <p>When finished, encourage and support the children to describe their houses, using mathematical language, e.g. my house has two windows, one door, the roof is on the top of the house, the garden is at the front of the house and so on.</p> <p>Children should be enabled to document their work, maybe by taking a photo or by drawing their house.</p>	<p>Questions to guide the activity:</p> <p>Which blocks are best for building the walls? Why?</p> <p>How many rooms should the house have? How could you make rooms?</p> <p>Can you use arches, cylinders, etc.? Where?</p> <p>Describe your house. Is it similar to the house that Tom built? Why/Why not?</p>

Assessment:

- Did children understand and use appropriate language to describe their houses and the shapes used to make them?

Resource:

Hutchins, P. (1971). *Changes, Changes*. New York: Macmillan.

(Widely available)

Possible Next Steps:

- The children can be supported and encouraged to make more elaborate houses with specific instructions, e.g., can you build a house with at least two rooms and a roof?
- Children can be challenged to copy a picture of a pre-built house (using the same blocks).
- Place pictures/photographs of different types of houses in the construction area for inspiration.
- Older children can design/plan their house before they build it and compare the finished house with the plan.