

Finding Our Heart
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 Native plants/biodiversity



**Planning a *Conceptual PlayWorld* in STEM (Fleer, 2022)
 Monash PlayLab**

Five Characteristics of a Conceptual PlayWorld to support imaginary play and Science, Technology, Engineering and Mathematics (STEM) thinking and learning (Fleer, 2022)

Pedagogical characteristics	Pedagogical practices that are planned	Conceptual PlayWorld in action
Selecting a story for the <i>Conceptual PlayWorld</i>	<ul style="list-style-type: none"> ■ Selecting a story that is enjoyable to children and adults. Summary of the story. ■ Building drama for the characters in the story. ■ Building empathy for the characters in the story ■ A plot that lends itself to introducing a problem situation. Overview of the problem. ■ Being clear about the concept(s) and its relation to the story and play plot to be developed ■ Adventures or journeys that spring from the plot (e.g., chapters) 	<ul style="list-style-type: none"> ■ Important message about Australia’s past and the Uluru Statement ■ Empathy for the land ■ Use the story to inspire an investigation about how to protect the local indigenous plants and animals. Encourage children to act and find the heart of the nation. ■ Concept - local indigenous plants and how to protect biodiversity i.e. variety and number of living things in a local area for a sustainable future. ■ Introduce native animals, Bandicoot, Bilby, Numbat, Gouldian Finch, Mountain Pygmy-possum, to the shared play and go on adventures/journey together. Meet and solve problems along the way.

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<p>Designing a <i>Conceptual PlayWorld</i> space</p>	<ul style="list-style-type: none"> ■ Finding a space in the classroom/centre/outdoor area suitable for an imaginary <i>Conceptual PlayWorld</i> of the story ■ Designing opportunities for child-initiated play in ways that develop the play plot further or explore concepts and make them more personally meaningful ■ Planning different opportunities for children to represent their ideas and express their understandings. 	<ul style="list-style-type: none"> ■ You could also introduce endangered species e.g. Helmeted Honeyeater, Leadbeater's Possum. ■ Turn any natural space into an imaginary heart of Australia ...you might like to use the illustrations in the book to imagine our "big beautiful country". Are there trees, animals, rivers or grass? You might meet characters in the imaginary PlayWorld e.g. Bunjil or The Rainbow Serpent there to invite discussions about respecting the land. ■ Use natural materials e.g. pods, leaves, bark, flowers and seeds, to represent the local land e.g. through collage or a diorama. You could investigate indigenous plants in relation to the local ecosystem. You could represent your understanding using a variety of art media. ■ You could experience nature and the local community groups by helping plant and care for indigenous plants. Your local council might be able to help. ■ Take action. You could invite your ECC or school to organise a tree planting day.
<p>Entering and exiting the <i>Conceptual PlayWorld</i> space</p>	<ul style="list-style-type: none"> ■ Plan a routine for the whole group to enter and exit the <i>Conceptual PlayWorld</i> of the story where all the children are in the same imaginary situation ■ Children choose characters as they enter into the imaginary situation ■ Adult is always a character in the story 	<ul style="list-style-type: none"> ■ To signify entering the imaginary situation together - Sing an Acknowledgement of Country (see below). ■ Children and adults choose to be characters e.g. Bandicoot, Bilby, Numbat, Gouldian Finch, Mountain Pygmy-possum. What is their natural habitat? Where is their home? Does their family live there? You could meet expert scientists, experts in Australia's unique and diverse native flora to find out more about their adventures.

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		<ul style="list-style-type: none"> ■ Adults could be native trees e.g. Gum trees (eucalyptus), Bankia trees, Waratah trees, Wattle trees. Are you home to any native animals? You could learn the indigenous names of the plants you are playing.
Planning the play inquiry or problem scenario	<ul style="list-style-type: none"> ■ Problem scenario is not scripted, but a general idea of the problem is planned ■ The problem scenario is dramatic and engaging ■ The problem invites children to investigate solutions to help the play in the <i>Conceptual PlayWorld</i> ■ Being clear about the concepts that will be learned from solving the problem situation. Concepts are in service of the children's play. 	<ul style="list-style-type: none"> ■ Receive a letter from the land "Dear children, I need your help to protect all of the different plants and animals that I am home to. Please help replant native plants and care for me. We all need each other, with your help we can all look after each other... Love the Land" ■ Concept - local indigenous plants and how to protect biodiversity i.e. variety and number of living things in a local area for a sustainable future. ■ The land (the heart of Australia) needs our help! Invite children to investigate indigenous plants. Visit the types of animals listed above to learn about local areas. What are some of the threats to indigenous plants? E.g. grazing & agriculture, urbanisation and industrial development, mining & quarrying. ■ While in the imaginary situation - the heart of Australia - invite children to work together, to listen to each other and care for the land, plants and animals. What can the land teach us? The land could continue to send letters to the children to invite them to plant trees and other plants indigenous to the area. You could contact an Aboriginal Elder or leader to find out more. ■ To support developing the shared imaginary situation you could consider: What do we know about indigenous plants? What can you see when you are in nature? What can you

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<p>Planning adult interactions to build conceptual learning in role</p>	<ul style="list-style-type: none"> ■ Adults are not always the same character. Roles are not scripted ■ Planning of who will have more knowledge and who will be present with the children to model solving the problem. There are different roles adults can take: Adults plan their role for the <i>Conceptual PlayWorld</i> to be equally present with the children, or to model practices in role, or to be needing help from the children. Their role can also be together with the child leading (primordial we), where they literally cradle the child or hold their hand and together act out the role or solution 	<p>smell? What can you hear, touch and taste when on the land?</p> <ul style="list-style-type: none"> ■ There are different roles adults can take: Adults plan their role for the PlayWorld to be equally present with the children (e.g. “Let’s explore the indigenous plants of this local area together. Why are they important for the land?”), or to model practises in role (e.g. I’m a Helmeted Honeyeater. I’m an endangered bird. I eat nectar and sap from the Eucalyptus tree. Or I’m an endangered Leadbeater’s Possum. I live with my family in a nest made from shredded bark in a tree hollow in a Eucalyptus tree), or to be needing help from the children (e.g. “Tell me how we can help the land? What plants should we plant here? What wildlife will it attract?”) Their role can also be as together with the child leading (primordial we) (e.g. “Let’s pretend to be a Eucalyptus tree. We’re going to grow into some of the tallest trees in the world. We’ll be home to lots of native birds - they love the nectar from our flowers. We need lots of sun, water and space for our roots to grow.”) where they literally cradle the child or hold their hand and together act out the role or solution. ■ Conceptual intentions are planned: Planning of who will have more knowledge and who will be present with the children to model solving the problem.

Acknowledgment of Country:

Here is the Land
Here is the Sky
Here are my friends
and here am I
We play today
On traditional Land

**Our First Nation people
we walk hand in hand
We'd like to say thank you
for letting us share
the Land that you love
we promise to take care.**

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Conceptual PlayWorlds: Monash University Working Papers:

<https://www.monash.edu/education/research/projects/conceptual-playlab/publications>