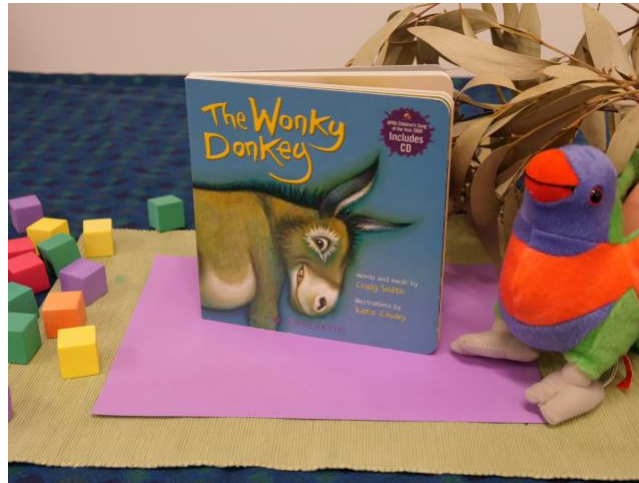


The Wonky Donkey
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 Engineering



**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"> ■ This is a story about getting to know a donkey named Wonky Donkey. He is down-and-out and is befriended by the Bird, but he needs a home. ■ Animals, countryside, funny, repetition and rhyme spunky, hanky-panky cranky stinky dinky lanky honky-tonky winky wonky donkey. ■ In building empathy for the donkey. Donkeys like companions, they are herd animals, and this donkey is on his/her own. ■ Possible plot extension: Donkey can go on new adventures in the countryside with other animals e.g. horses and goats - what will he get up to? ■ Concept - shelter, a structure that provides protection e.g. from the



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		weather such as wind, rain and cold temperatures.
Designing a <i>Conceptual PlayWorld</i> space	<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"> ■ Turn any space in the classroom into a country side where he can meet other animals. You could meet horses, or goats or sheep? ■ You could be a donkey. They are affectionate, intelligent and curious. ■ You could make a documentary about donkeys and all of their characteristics. ■ You could visit a farm and meet a real-life donkey.
Entering and exiting the <i>Conceptual PlayWorld</i> space	<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. You could put on a bow tie or play some country music just like the Wonky Donkey. ■ Children and adults choose to be characters e.g. Wonky Donkey? The bird? Wonky Donkey's new friends? Pretend to be structural engineers. You could inspect the strength of the building.
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 Bird in the story: "Dear children, I'm worried about my friend the donkey. Donkeys are wonderful companions, and great protectors, but this donkey is all alone! Can you build a shelter for him? We can have a housewarming party and invite lots of new friends. From the Bird" ■ You could ask the donkey what he'd like. A place to make his coffee? A place to play his country music, play games with others and dress up for a party. ■ Concept - engineering a shelter, building What materials would you

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		<p>use to build a structurally sound shelter? Is it waterproof? Can it protect the donkey from the wind and cold? What will the frame be like?</p> <ul style="list-style-type: none"> ■ Pretend to be a structural engineer. There are lots of female engineers! Such as Emily Warren Roebling who guided the construction of the Brooklyn Bridge. Or Dr Collette Burke who was Victoria’s first Chief Engineer. She worked on major projects such as hospitals, road tunnels and wind farms. ■ You could visit the donkey to test your ideas. You could make models. Is it big and strong enough for him and his friends? ■ You could role play making imaginary shelters. You might need to take pretend tools and materials e.g. shovel, concrete, timber for the framing or metal sheets for the roof. You might also need a pretend saw, drill, hammer and nails.
<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. 	<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 what makes a donkey shelter together? How do we keep the donkey protected from the rain?”), or to model practises in role (e.g. I’m a Structural Engineer. Is the frame stable? Is the roof strong?), or to be needing help from the children (e.g. “Tell me what materials we could use to build a shelter for the donkey and his friends?”) Their role can also be as together with the child leading (primordial we) (e.g. “Let’s pretend to be the Wonky Donkey together. We could get dressed up

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		<p>and dance to the country music together.”) where they literally cradle the child or hold their hand and together act out the role or solution.</p> <ul style="list-style-type: none"> ■ 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: Australian Research Council Laureate Fellowship Scheme (Grant Number 180100161) funding contributed to the development of open access curriculum materials and research: Fler, M. (2022). *Conceptual PlayWorlds*: Monash University Working Papers: <https://www.monash.edu/education/research/projects/conceptual-playlab/publications>