Number and Algebra: Fractions and Decimals: Half of a Shape

Australian Curriculum
This lesson plan could be used to support the teaching and learning of the following Content Descriptions from the Australian Curriculum.

Y1 – Number and Algebra, Fractions and Decimals
Recognise and describe one-half as one of two equal parts of a whole (ACMNA016)

Child-Friendly Aim:	**Success Criteria:**	**Resources:**
I can find $\frac{1}{2}$ of a shape.	I can find $\frac{1}{2}$ of a shape. I can explain that $\frac{1}{2}$ is 1 of 2 same size pieces. I can find $\frac{1}{2}$ in different ways. I can explain why 2 halves make the whole shape.	**Lesson Pack** A board game that folds in half Whiteboards and markers
Key/New Words: Whole, half, $\frac{1}{2}$, $\frac{2}{2}$.	**Preparation:** Differentiated **Finding Half Activity Sheets** – one per child **Board Game Sheet** – as required	

Prior Learning: It will be helpful if children are familiar with the language of 'half' and 'sharing'.

Learning Sequence

	**Abracadabra:** Children work in pairs to build a tower with the number of bricks given on the **Lesson Presentation**. When you say the magic words they break the tower in half and say the answer to your spell. There is a second spell to put the two halves back together. Two slides are provided with numbers, the third is a blank slide for generating more questions.	
	**My Problem:** 'I have a game. I can't get it back in the box! The game is too big. How can I get the game back in the box?' Take suggestions from the children, but don't put the game back in the box until someone uses the phrase 'fold it in half'. Point out that one side of the board covers the other exactly.	
	**What Is a Half?** 'You used the word half to help me get my game in the box but what does it mean?' Use this slide to assess the children's prior knowledge. Can children verbalise what is meant by half? Can they draw a picture to explain their thinking? Emphasise that a half is one of two same size pieces. As the pictures fly in encourage children to explain what they see using mathematical language, e.g. there are two same size pieces, the glass is half full.	
	**Finding Half:** Using the **Board Game Sheet**, ask children how they would fold the game exactly in half. Did any pairs say they would do this in a different way? Demonstrate how you can do this in two ways. They are both folded in half but they look different. Repeat the point that both halves should be exactly the same size and shape. You may wish to discuss diagonal folding – that the shapes would be the same if one was rotated, but that they are not mirror images of each other and would not match exactly when folded.	
	**Finding Half Activity:** Children complete the differentiated **Finding Half Activity Sheets**. Can they find half in different ways? Which games can be folded in more than one way? Which games have only one way of being folded? When the children have finished the activity, take feedback or share some work before moving on.  Children cut out and fold shapes into halves, draw a line on the fold and stick them into books. Encourage discussion on naming the halves, emphasising that the pieces are the half not the fold. Provide pre-cut shapes for this group if necessary.  Children work in pairs to cut out and fold shapes into halves, drawing a line on the fold and stick them into the correct place on the sheet. Encourage discussion about the shapes and the different folds.  Children work individually to cut out and fold shapes into halves, drawing a line on the fold and stick them into the correct place on the sheet. Encourage discussion about the shapes and the different folds.	
	**Two Halves Make a Whole:** Talk through these slides to model that two halves make one whole. Encourage children to describe what they can see, e.g. half of the shape is yellow and half is red. Two halves are coloured in, that makes one whole.	

Master*it*

Turnit:	In the hall, ask children to make half turns on their feet, backs or bottoms, demonstrating that two half turns equal one full turn.
Matchit:	Cut some large shapes in half and get the children to find two identical pieces to make the whole shape.
Bakeit:	Bake different shaped biscuits or buns and invite children to cut them into equal halves before they eat them.
Playdoughit:	Children make playdough models of different shapes and sizes, and cut them in half. Swap with a partner to match them back together.
Geoboardit:	Get the children to explore making shapes with elastic bands. Can they halve the shape using a different coloured band?