

# Queensland kindergarten learning guideline

Professional development | Resources



This resource provides information for teachers to engage kindergarten children in numeracy games.

It is recommended that you allocate approximately 30 minutes to reflect on this document and view the *Engaging in numeracy games in kindergarten* video (available at [www.qcaa.qld.edu.au/32158.html](http://www.qcaa.qld.edu.au/32158.html)).

This resource supports teachers to meet elements of Standards 1 and 2 of the *Australian Professional Standards for Teachers* (available at [www.teacherstandards.aitsl.edu.au/Standards/Standards/AllStandards](http://www.teacherstandards.aitsl.edu.au/Standards/Standards/AllStandards)).

## Engaging in numeracy games in kindergarten

The video *Engaging in numeracy games in kindergarten* provides an example of embedding numeracy into routines and transitions. Transitions provide opportunities to introduce concepts and explore patterns and relationships between objects. The dice game featured in the video is one example of how to engage kindergarten children in numeracy learning.

### Transition activity: The dice game

#### Process

The dice game transition activity can be used for children to move from one area to another at any time in the day. In the early stages of introducing the game, the teacher will need to explain the game, model the process and provide adult–child interaction and instruction until children are familiar with the process.

1. Children sit in a circle.
2. One child leads and:
  - a. rolls a large foam dice into the middle of the circle
  - b. counts the dots on the dice
  - c. counts the same number of children (in a row).
3. The children follow the leader to the next activity.

#### Concepts and specific language

The child who rolls the dice engages in:

- counting
- one-to-one correspondence — one number name for each object counted, e.g. pointing to each dot as they say each number
- subitisation in some cases — identifying small groups without counting, e.g. children recognise the patterns of the dots on the dice
- practice in counting and in concepts of number, e.g. the same number can be represented in different ways such as dots in a pattern, children in a row.

Counting and pointing to both the dots and the children also provides additional kinaesthetic experience in number by feeling the movement of counting through the body.

## Teacher's role

Teachers play a vital role in supporting learning through positive social interactions, using inclusive, responsive and culturally sensitive teaching practices (*Queensland kindergarten learning guideline*, p. 4).

The dice game is most effective when teachers:

- respect, support and encourage each child's efforts as there is no one way to count the dots
- revisit and revise the game regularly so children build confidence and reflect on prior learning
- encourage children sitting in the circle not to call out the number on the dice, even if they recognise it quickly
- explain how to wait, share and take turns.

When children feel supported to take a risk, manage emotions, self-regulate and be a caring member of a group, they are more likely to fully engage in an experience such as the dice game.

## Extension

After revisiting and revising this game regularly, children may take their mathematical understanding to the next level. For example, if a child counts five children, they may identify: 'That's six going to the bathroom!'

The teacher can support this extension and provide opportunities to expose the children to mathematical language: 'Oh I see you added on Bill to the children that he counted. Yes, five and one more makes six'.

## Reflection

This is one example of a numeracy game in kindergarten. How could you use this at your kindergarten? What other numeracy games do you engage in at your kindergarten?

## More information

If you would like more information, please visit the QCAA website at [www.qcaa.qld.edu.au](http://www.qcaa.qld.edu.au) and search for 'Numeracy'. Alternatively, email the K–12 branch at [qklg@qcaa.qld.edu.au](mailto:qklg@qcaa.qld.edu.au).