



## Sample assessment task

Year level	2
Learning area	Mathematics
Subject	Fractions and Decimals
Title of task	Choc blocks!

## Task details

Description of task	Students will cut paper ‘chocolate’ into squares and share it evenly to show halves, quarters and eighths.
Type of assessment	Summative
Purpose of assessment	To assess students’ ability to divide 24 squares of chocolate into collections representing fractions of the total.
Assessment strategy	Represent thinking on a worksheet
Evidence to be collected	Observations of individual students learning behaviours and ‘Choc Block’ evidence sheet
Suggested time	1 hour

## Content description

Content from the Western Australian Curriculum	<b>Number and Algebra</b> <b>Fractions and Decimals</b> Recognise and interpret common uses of halves, quarters and eighths of shapes and collections			
Proficiencies	Understanding	Fluency	Reasoning	Problem Solving
	✓	✓	✓	✓
Early Years Learning Framework (EYLF)	Outcome 4: Children are confident and involved learners Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating Outcome 5: Children are effective communicators Children begin to understand how symbols and pattern systems work <small>[Commonwealth of Australia. (2009). <i>Belonging, being &amp; becoming: The Early Years Learning Framework for Australia</i>. Canberra: Australian Government Department of Education, Employment and Workplace Relations.]</small>			
National Quality Standard (NQS)	<b>National Quality Standard: Quality Area 1 - Educational program and practice</b> Standard 1.1 An approved learning framework informs the development of a curriculum that enhances each child’s learning and development. Element 1.1.5 Every child is supported to participate in the program. <small>[Based on: <i>Guide to the National Quality Standard</i> (ACECQA). Used under Creative Commons Attribution 3.0 Australia licence.]</small> <b>Refer to the last page for ‘Making connections across learning environments’.</b>			

## Task preparation

Prior learning	Students have prior knowledge of and experience in: <ul style="list-style-type: none"> <li>• counting with one-to-one correspondence</li> <li>• partitioning with concrete materials</li> <li>• dividing/sharing items into equal parts</li> <li>• repeated halving</li> </ul>
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	<ul style="list-style-type: none"> <li>• problem-solving in authentic situations.</li> </ul>
<b>Assessment differentiation</b>	<p>Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged.</p> <p>Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.</p>
<b>Assessment task</b>	
<b>Assessment conditions</b>	This is an individual task. Extra support may be given as required.
<b>Resources</b>	<ul style="list-style-type: none"> <li>• One set of 24 'chocolate blocks' per student</li> <li>• Scissors</li> <li>• Record sheet</li> <li>• Pencils</li> </ul>

### Instructions for teacher

Students work individually, however support can be provided with reading if a student(s) has difficulty. It is important that comprehension/interpretation of questions is completed by the students.

<b>Inspire/inform</b>	<ul style="list-style-type: none"> <li>Review fractions by watching a video/song such as Fractions Song – My Dog Fraction.</li> <li>Ask the students to briefly share what they know about sharing/fractions with a partner.</li> <li>Inform students there is chocolate! (Unfortunately, it is paper chocolate). Students will need to share out the 24 blocks and identify the fractions created.</li> </ul>
<b>Show</b>	<ul style="list-style-type: none"> <li>Show the pictures of chocolate which will need to be cut-out.</li> <li>Explain how to complete the recording sheet.</li> </ul>
<b>Tell</b>	<ul style="list-style-type: none"> <li>Explain to the students that once they have cut their chocolate squares they will need to share them between imaginary groups of people.</li> </ul>
<b>Apply</b>	<ul style="list-style-type: none"> <li>Students cut out the blocks of chocolate and start sharing!</li> <li>Students use the 'choc blocks' to manipulate and assist with their working out.</li> <li>The first part of the task is to divide the chocolate into <u>halves</u> and record how many blocks of chocolate the two people will receive.</li> <li>The second part of the task is to divide the chocolate into <u>quarters</u> (i.e. chocolate for four people) and record how many blocks of chocolate the four people will receive.</li> <li>The third part of the task is to divide the chocolate into <u>eighths</u> and record how many blocks of chocolate the eight people will receive.</li> <li>The final part of the task is to think of other times that the students may need to identify these fractions in real life.</li> </ul>
<b>Reflect</b>	<ul style="list-style-type: none"> <li>When the work is collected, ask the students how valuable they think learning to share amounts fairly is. Ask for volunteers to share what they think and give an example from real life.</li> <li>Physically create a value line. Ask the students to place themselves on the value line according to their own opinion - very important to know (one end), somewhat important (middle), no value at all (opposite end).</li> <li>Play a class divide game. Use the same fractions <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math> and <math>\frac{1}{3}</math> but allow the students to physically move to understand the concept of repeated halving and patterns.</li> </ul>

### Sample marking key

Description	Check
Identifies and models fractions	✓
<i>Independently</i> and correctly describes and demonstrates given fractions. Identified appropriate real life situations for everyday use of fractions.	
Required <i>some support</i> to describe and demonstrate given fractions. Identified real life situations for everyday use of fractions. May have refer to previous class examples.	
Required <i>lots of support</i> to describe and demonstrate given fractions. Unable to identify real life situations for everyday use of fractions.	

## Making connections across learning environments

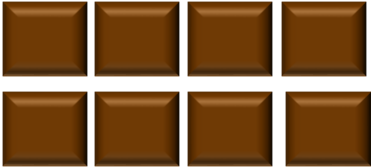
### National Quality Standard: Quality Area 1 - Educational program and practice

Standard 1.1 An approved learning framework informs the development of a curriculum that enhances each child's learning and development.

Element 1.1.5 Every child is supported to participate in the program.

### Observations of individual learning behaviours

	<i>Provocations</i>	<i>Resources</i>
<b><i>Inside and outside spaces/environments</i></b>	<p><b>Collections</b> Supply several different size jars and a variety of items such as shells, stones, pom poms and so on. Place each collection into a separate bowl and allow the students to decide how many jars they will be sharing the items amongst. For example, there are nine jars but choose to only use four jars to share the shells in. Students explore options to develop an understanding of the concept of sharing.</p>	<p>Jars Multiple collections Separate bowls Tongs (optional)</p>
	<p><b>Doubles</b> Supply graph paper and coloured pencils for students to explore the concept of repeated doubling by rolling a 20 sided dice (example; role a 12, colour 12 in blue and another 12 in red, draw a line around the perimeter to contain the total number) Optional: students write out the number sentences that matches (<math>12 + 12 = 24</math>, <math>24 \div 12 = 2</math>, <math>12 \times 2 = 24</math> and so on).</p>	<p>Graph paper Coloured pencils Ruler Textas</p>
	<p><b>Lego/duplo builds</b> Supply a bucket of Lego/duplo type bricks for students to explore fractions. Roll a 1-12 dice to decide on what fraction you will build upon. If you roll a 6 you need to select a block that has 6 joiners, next roll is an 8 you need to connect the 6 on to the 8 etc. Build an interesting fraction form.</p>	<p>Lego or duplo blocs Dice 1-12 sided</p>
<b><i>Ambience/aesthetics</i></b>	<p>Songs and videos that demonstrate sharing or fraction concepts at appropriate level.</p>	

Choc blocks!		
	How many chocolate blocks does each person receive?	Draw the number of chocolate blocks each person receives.
Example 3 – Thirds	<i>eight</i> 8	
2 - Halves		
4 – Quarters		
8 - Eighths		
<p>Conclusion</p> <p>Make a statement about how you worked out the problems.</p> <p>Identify times that you may need to identify these fractions in real life.</p>		

