NATIONAL COLLABORATION

IN THE MATHEMATICAL SCIENCES

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Apple tree multiplication assessment rubric:

Below standard	Expected standard	Above standard
Students partition 72 in half. Students use the picture to partition into 24 and 48	Students can partition 72 into two usable numbers.	Students can partition 108 into usable numbers. (or) Students can choose and partition a number into three usable numbers.
Students model each "field" using related factors. Eg 4 x 6 and 8 x 6	Students model each "field" using appropriate factors (factors may be related)	Students model each field using different factors for each field. Eg 4 x 12 and 6 x 10
Students need assistance to record arrays as times tables	Students can record arrays as times tables inependently.	Students can record arrays as times tables and related division facts
Students need assistance to recognise patterns in their arrays	Students can recognise patterns in their arrays that relate to times tables.	Students can recognise and extend patterns in their arrays that relate to times tables
Recognise and represent division as grouping into equal sets and solve simple problems using these representations (ACMNA032) Recognise and represent multiplication as repeated addition, groups and arrays (ACMNA031)	Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057)	Investigates number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076)