



TOOL // Grade 7 Fractional Quilt Performance Task

What is it used for?

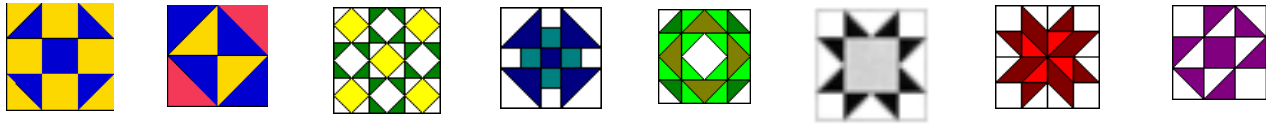
The tool is a performance task for fractions with a rubric for assessment across the 4 categories.

How do you use it?

At the conclusion of a teaching/learning unit on fractions students are given an opportunity to independently demonstrate what they know and can apply with regards to fractions. They are given the task, coloured paper and a 12x12 square. They have two class periods to complete the task and to refer to the rubric to guide their performance.

How do you adapt it to other subjects and topics?

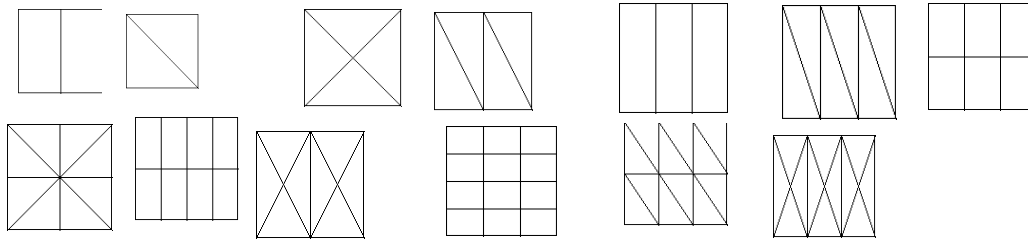
N/A



Task

You are to design a quilt pattern using any combination of shapes and colours. Your pattern must include at least 3 colours. **Plan your design out first on newsprint.**

Chose any number of 4 x4 coloured squares and cut them to different fractional shapes to make your quilt. Paste your design on the 12x12 block. When your quilt piece is done, on a separate sheet of paper, calculate the fraction of the whole shape each colour covers. Do an addition and subtraction question for any two colours. Make sure all your work is neat and organized.



MATHEMATICS ASSESSMENT RUBRIC				
Categories	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding facts, terms, procedural skills	With several major errors completes addition, subtraction and fractions of total shape for each colour	With several minor errors or omissions completes addition, subtraction and fractions of total shape for each colour	With few minor errors or omissions completes addition, subtraction and fractions of total shape for each colour	With rarely any errors or omissions completes addition, subtraction and fractions of total shape for each colour
Thinking understands the problem makes a plan(chooses a strategy) carries out the plan looks back - justifying, proving, reflecting use of critical/creative thinking processes	In a very limited way plans out quilt design Uses one or two colours with few basic fraction pieces uses critical/creative thinking processes with limited effectiveness to solve non routine problems or investigations	Simply with limited detail plans out quilt design Use mostly 2 colours with some basic fraction pieces uses critical/creative thinking processes with some effectiveness to solve non routine problems or investigations	Generally plans out quilt design making some adjustments Uses 3 colours and a number of different fraction pieces uses critical/creative thinking processes with considerable effectiveness to solve non routine problems or investigations	Plans out quilt design in detail adjusting as needed Utilizes 3 colours, may have more, and a wide variety of fraction pieces uses critical/creative thinking processes with high degree of effectiveness to solve non routine problems or investigations
Communication expresses mathematical ideas orally , visually and in writing using numbers symbols, pictures	communicates mathematical process with little evidence of organization, clarity, uses few conventions, to convey mathematical information	communicates mathematical process with some degree of organization, clarity, uses some basic conventions, to convey basic mathematical information	communicates mathematical process with an appropriate degree of organization, clarity, Usually uses conventions, to convey mathematical information	communicates mathematical process with a high degree of organization, clarity Consistently uses conventions to convey mathematical information
Application makes connections bwt. knowledge & skills to transfer skills to solve real life applications	demonstrates the ability to make connections and transfer knowledge and skills to new contexts with limited effectiveness	demonstrates the ability to make connections and transfer knowledge and skills to new contexts with some effectiveness	demonstrates the ability to make connections and transfer knowledge and skills to new contexts with considerable effectiveness	demonstrates the ability to make effective connections and transfer of knowledge and skills to new contexts