

Lesson Title: Pattern Block Project
Unit: Fun Fraction Activities
Grade Level: 6 th grade
Estimated time requirement: 1 class period for the introduction; students are usually given a few extra days to finish the project. Students may complete it in class after their other lessons are finished or do it outside of class.
Summary: Students will make a picture or create a design using pattern blocks. Each of the different shapes has a different fractional value. The total of the picture of the design must add up to a value of twelve.
Objectives: <ul style="list-style-type: none"> • Students will learn about common denominators, adding parts together with different denominators, and explore the idea of mixed numbers.
Texas Essential Knowledge and Skills: 6.1B, 6.2A, 6.2B6.11B
Assessment: <ul style="list-style-type: none"> • Teacher will grade student’s work. • Student will also write a paragraph about his design. He or she should include (in words) how the picture “adds up” to twelve.
Materials: <ul style="list-style-type: none"> • Pattern blocks
Resources: <ul style="list-style-type: none"> ▪ Virtual Manipulatives website http://matti.usu.edu/nlvm/nav/frames_asid_171_g_3_t_2.html?open=activities
Prior Knowledge/Skills: parts of a whole, hexagon, equilateral triangle, rhombus, trapezoid
Procedures: Students will create a design or a picture using the pattern blocks. Each pattern block has a different fractional value. The yellow hexagon has a value of one whole. The red trapezoid has a value of one half. The blue rhombus has a value of one third. The green equilateral triangle has a value of one sixth. There are two requirements for this project: each picture must use all four shapes and the design must “add up to” a total of twelve Students will present their final project to the class using the document camera.
Technology Infusion: <ul style="list-style-type: none"> • Students will use the document camera to share their projects to the class. • Use a digital camera to take pictures of some of the student projects and put them on the teacher’s website. • Students can explore the values of the pattern blocks using the virtual manipulative website

Cultural Connections: Students can research some of the early quilt patterns used by the early Americans to see which shapes were used in their creations. Students can make their own quilts with paper and pencil or use the pattern blocks.

Family Connection: Students can work with family members to classify shapes they find in objects or decorations in the home. Suggest they keep a list of their results.

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