

ADDITION & SUBTRACTION WITH PATTERN BLOCKS

Lesson Objective:

- Students will practice representing concepts of addition and subtraction with EduStic pattern blocks.
- Students will build their own addition and subtraction problems with EduStic pattern blocks.

Materials Needed:

- 1 set of EduStic pattern blocks from Pattern Smart game
- 1 laminated storage sheet per student
- 1 wet erase pen per student
- 1 set of worksheets per student

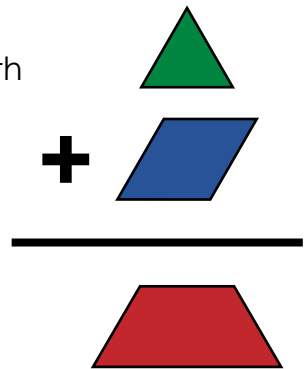
Time: 20-30 minutes

Teaching Suggestions:

Students work in groups of two. Each student gets a laminated storage sheet, enough EduStic pattern blocks to solve each problem, and a worksheet. Students start with the addition worksheet. Have them build, represent, and solve problems with pattern blocks. Students may find it helpful to layer pattern blocks on top of one another to discover solutions. Some students may begin to notice the fraction relationship between the pattern block shapes (hexagons represent one, trapezoids one-half, rhombuses one-third and triangles one-sixth). If students notice this relationship, you can introduce the idea of rewriting the pattern block addition problems as fractions (i.e. red trapezoid plus red trapezoid is actually $\frac{1}{2} + \frac{1}{2} = 1$). After students finish the worksheet, ask them to try to create one or two new addition problems using EduStic pattern blocks.

Students can do the subtraction worksheet next. If students did not notice the fraction relationship with addition, they may notice it with subtraction (i.e. yellow hexagon minus red trapezoid is actually $1 - \frac{1}{2} = \frac{1}{2}$). When students finish the subtraction worksheet, ask them to create one or two new subtraction problems with EduStic pattern blocks. If students have grasped the concept of fractions at this point, have them write equations below the new problems they have created.

Note: If students do not grasp the idea of fractions here, that is fine. This is a great exercise for introducing students to the simple part-whole relationships in pattern blocks without dealing with the abstract idea of fractions. Students will get plenty of practice with fractions in our Fraction Arithmetic with Pattern Blocks section.




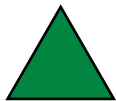
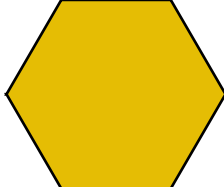

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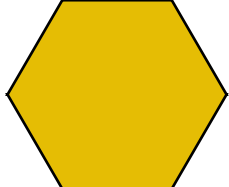
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Addition with EduStic Pattern Blocks





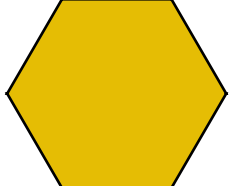
Directions: Use EduStic pattern blocks to solve the following problems. Combine shapes on laminated boards. Hold up board with answers when finished. Circle the correct answer below.

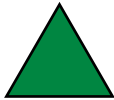


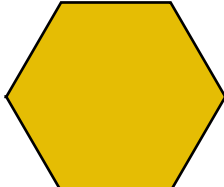

1  +  =  OR 

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5  +  +  =  OR 

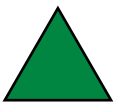
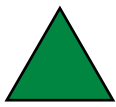


6  +  +  =  OR 


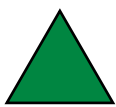
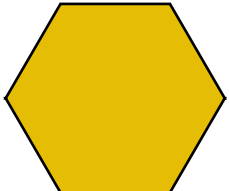

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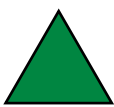
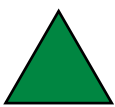
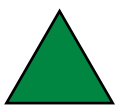


Addition with EduStic Pattern Blocks - Answer Key





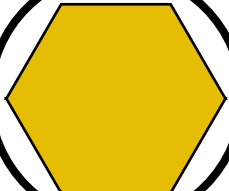
Directions: Use EduStic pattern blocks to solve the following problems. Combine shapes on laminated boards. Hold up board with answers when finished. Circle the correct answer below.

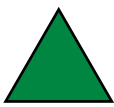


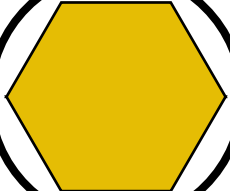

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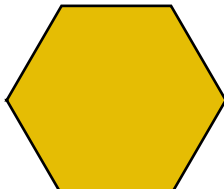



Subtraction with EduStic Pattern Blocks

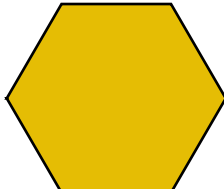



Directions: Use EduStic pattern blocks to solve the following problems. Combine and take apart shapes on laminated boards. Hold up board with answers when finished. Circle the correct answer below

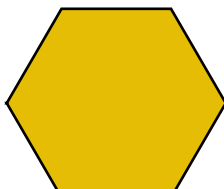

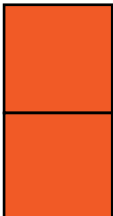

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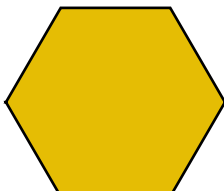



Subtraction with EduStic Pattern Blocks - Answer Key

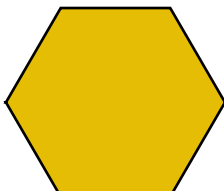



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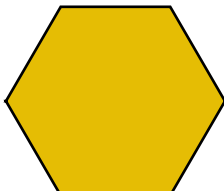

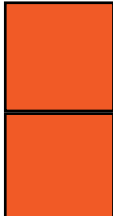
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