Unit 2	<b>Small Groups: Exploring Part/Whole</b> <b>Relationships</b> Low Support	Math SG2	Math Standards: MELDS.M.MP.PS.7 MELDS.M.G.PS.4
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## **Guiding Math Ideas:**

• 3D shapes and 2D Shapes- Finding and describing

### Math Concepts from Unit Learning Progressions:

- Exploring number matching puzzles and manipulatives to represent relationships
- Taking apart and putting together toys, puzzles and manipulatives and sometimes describing parts and wholes

Materials:	Math Vocabulary:	
<ul> <li>Toys with unique parts that fit together to make a whole.</li> <li>Pattern Blocks</li> <li>Bucket of Monkeys</li> <li>Number Matching puzzles</li> </ul>	<ul> <li>Whole- all of something or something that is complete</li> <li>Part- a piece of something</li> </ul>	

#### **Preparation:**

Set all items in area. Limit amount of toys as needed (monkeys, pattern blocks, etc.) to facilitate productive play and clean up.

### **Procedure:**

This small group is exploratory. The choices of toys are not random. Each type of toy represents partpart-whole relationships. Observe children as they play with the various manipulatives and demonstrate putting together and taking apart things and grouping. Use the language of math to describe their actions. Pattern blocks are introduced. Plan for children to play without direction or instruction.

# Strategies to Provoke Math Thinking:

- Strategic choice of toys and manipulatives: These toys represent the 3 types of Part-Part-Whole Relationships: 1. Whole objects are made up of unique parts (Toys with different parts that make a whole object, such as building a toy car, a take-apart animal or 2 part number puzzles) 2. Groups of things can be divided into sets (Monkeys). 3. Whole objects can be divided up into similar or equal parts (Pattern blocks, play pizza from the home center).
- Part- part whole language: Separate, divide, group, my part, your part, the whole thing, half

Observe this early stage of part-part-whole exploration.

#### **Provocation:**

Some children may especially connect with assembling and disassembling toys. Taking apart and putting together things are spatial abilities that help children with geometry and understanding fractions in primary grades. Provide multiple opportunities for play with these types of toys.