The teacher may provide visuals (e.g., magazines, newspapers, internet) of things that come in groups
so that students can brainstorm examples of equal groupings from the real world.

The teacher may provide directions for playing a multiplication game (e.g., circles and stars) so that students can begin to connect multiplication to equal groups

The teacher may provide a hundreds chart (authors recommend using a zero to 99 chart) so that students can begin exploring the connection between skip counting, equal groups and multiplication.

The teacher may use a children's story (e.g., The Doorbell Rang by Pat Hutchins) to introduce the concept of fair share (group size unknown) so that students can explore dividing a quantity into equal groups and its connection to multiplication.

The teacher may provide word problems where the number of groups is unknown (e.g., how many times do you need to jump two feet to reach ten feet) to motivate the use of a number line model so that students can develop additional strategies for solving multiplication and division problems.

The teacher may utilize the arrays in the previous learning experience so that students can begin to explore the concept of the distributive property by composing new arrays.

The teacher may provide grid paper and scissors so that students can find all the possible row and column structures for each number from 1 to 10.

The teacher may provide grid paper and a bag of 36 square tiles so that students can use their knowledge of arrays to find all the arrays formed by 36 squares.

The teacher may use a children's story (e.g., One Hundred Hungry Ants by Elinor Pinczes) involving arrays so that students can connect the concept of arrays to multiplication and division.

The teacher may provide several representations of a multiplication problem (e.g., equation, words problems, visuals) so that students can deepen their understanding of multiplication by matching the corresponding representations.

PERFORMANCE ASSESSMENT: A county fair board has hired you to create the layout of the livestock barn for the fair this year. When designing your barn you need to think about the following:

- 36 rabbits are part of the fair and 3 fit in each cage
- 24 chickens are part of the fair and 4 fit in each cage
- The fair only has 9 cages for turkeys and each cage only holds 2 turkeys
- The fair only has 8 pens for the goats and each pens holds exactly 4 goats
- The fair wants a 5 by 6 array of pens set aside for the sheep each pen can hold 2 sheep
- The fair provides 20 yards of fence to tie up cattle each steer needs 3 yards
- The fair is allowing 28 horses to be held in an array of stalls

Determine the best arrangement of the cages and pens for each type of animal by creating arrays of the pens and cages.



