

Numeracy – Decomposing Numbers

Curriculum: Numeracy/Mathematics	Learning Goals: -Student should demonstrate ways to decompose numbers (Extension: subtraction from 20) -Develop one to one correspondence between oral counting and concrete objects (e.g. by saying each number as you touch each object)
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Materials

- Two 10-sided dice (No dice? No problem! Visit <https://rolladie.net/> You will want to set it to 2 dice 10 sided.)
- Two 10 frame strips OR two empty egg cartons (cut the last column off to create an egg carton 10 frame)
- 20 counters (20 of the same object e.g, 20 beads, or 20 Cheerios, or 20 lego)

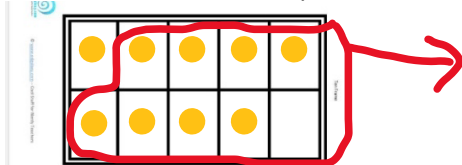
Activities

- Mathematicians call the beginning number in a subtraction equation the *minuend*. Mathematicians call the subtracted number the *subtrahend*. Mathematicians call the answer to a subtraction equation the *difference*.
- Fill your 10-frame or egg carton with the 10 counters.
- Roll your 10-sided dice.
- Take a look at this dice. What number is shown?



It landed on the number 9.

- Can you take 9 away from your full 10-frame? How many counters will be left over? Take 9 counters away to show how many counters will remain.



- Refill your 10-frame. Roll one 10-sided dice. What did you roll? Take that many counters off your 10-frame. How many counters are left over?
- Can you create a subtraction equation from this?
- Your goal is to subtract from 10. For example, if your beginning number (*minuend*) is 10 and you roll a 9 for the *subtrahend*, you take 9 counters off the full 10-frame. Matching subtraction equation: $10 - 9 = \underline{\quad}$ How many counters are remaining? Or as a mathematician would say, what is the *difference*? $10 - 9 = \mathbf{1}$

Extension:

- Use two dice and two ten frames! Fill two 10-frames up. Roll two dice. Can you create a subtraction equation from this?
- E.g. If you roll a 9 you will take 9 counters away. There are 9 empty spaces. How many counters are left over? $20 - 9 = \mathbf{11}$