Prime and Composite Card Shuffle

Purpose & SOL

- Students will use prior knowledge of factors to tell if a number is prime or composite, and exercise the answer.
- 5.3a

Materials

- A deck of cards per group of 2-4 students (or 2 ten-sided dice)
- Recording sheet (see attached document)

Length
20-25 min.

Introduction

Review the definition of prime and composite numbers and how to come up with factors. The teacher should call out a number and students will run in place if they know if it is prime or composite. If it's prime, remind the class that there are only 2 factors , and everyone will do 2 sky punches. If it's composite, have the class come up with all the factors. Everyone will perform that number of cross crawls (example: 12 – factors are 1, 2, 3, 4, 6, 12 – do 6 cross crawls because there are 6 total factors.

Implementation

Exercise the Answer

1. Split class up into groups of 2-4 students.
2. Give each group a pair of dice or a deck of cards (take out the face cards or assign them to be 0, Ace is 1).
3. Explain that the group will roll each die, or choose 2 cards from the deck to make a two digit number. Record the two digit number on their paper.
4. As a group, they must come up with all of the factors of the number and write them down.
5. If there are only 2 factors, the number is prime. Write P on your paper and the group will perform 2 sky punches together.
6. If there are more than 2 factors, the number is composite. Write C on your paper and have the group perform cross crawls (do the number of factors the multiple has).

Cool Down

Reach up to the sky, and reach down to touch your toes. Repeat this 5 times while breathing.

Modifications

This strategy could be used for even and odd numbers.

Name _____

Prime and Composite Card Shuffle

2 Digit Multiple	List all of the factors	P or C?	Exercise ✓ P = sky punches C = cross crawls
11	1, 11	P	✓
20	1, 2, 4, 5, 10, 20	C	✓