

Discovering Composite and Prime Numbers Fourth Grade/60 minutes

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Goal: To discover composite and prime numbers between 1 and 81.

Numbers that have exactly two factors are known as prime numbers. Numbers that are not prime are called composite numbers and can always be broken down into a product that consists entirely of prime numbers.

Materials:

Students: Eight different colored pencils, A hundreds chart for each student

Teachers: An overhead hundreds chart, Eight different colored overhead markers

Activity:

1. Issue each child a Hundreds chart. Have each child circle the multiples of 2.
2. Using a different color circle the multiples of 3.
3. Changing colors for each number's multiples, circle the multiples of each number 4 through 9.
4. Now direct the students to start looking for patterns.
5. Which numbers have more than one color circled around them?
6. Are there some numbers that have many colors around them?
7. What do you notice about any patterns with these circled numbers?
8. Are these circled numbers odd or even?
9. Are there any numbers that have no circles around them?
10. What do you notice about these numbers?
11. Are the numbers without circles odd or even numbers?
12. Are there any patterns to be seen in these non-circled numbers.
13. Prime numbers can only be factored with their own number and one. Can you name any prime numbers after studying this chart?
14. Composite numbers can be factored with more than just one and their number. Can you name any composite numbers from looking at this chart?

Follow-up

1. What should you be aware of when you are identifying prime numbers?
2. What should you be aware of when you are identifying composite numbers?
3. List five prime numbers. List all the factor pairs that give each product.
4. List five composite numbers. List all the factor pairs that give each product.