Learning Activity for Factor Fiction
4th Grade

Objective: The students will be able to find factors and multiples of various numbers.

Materials: none

FACTOR FICTION! - Factors and Multiples

Spoken:
Let's play a game. A game about Factors and Multiples. It's called...
Sung:
Factor Fiction, Factor Fiction
If there's a remainder that's a contradiction
A factor goes in evenly, and that's a fact
A factor goes in evenly, yeah that's a fact
I'll say some numbers and then you react

Spoken:
Like, let's try six...
Sung:
Is six a multiple of one?
Kids: Factor!
Is six a multiple of two?
Kids:Factor!
Is six a multiple of three?
Kids:Factor!
Is six a multiple of four?
(SFX: Horn)
Kids:Fiction!
Right.

Sung:
Four does not go into six evenly
Six is not a multiple of four

Kid: One more!

Spoken:
Okay, how 'bout twelve?

Sung:
Is twelve a multiple of one?
Kids:Factor!
Is twelve a multiple of two?
Kids:Factor!
Is twelve a multiple of three?
Kids:Factor!
Is twelve a multiple of four?
Kids:Factor!
Is twelve a multiple of five?
(SFX: Horn)
Kids:Fiction!
Right!

Sung:
Five does not go into twelve evenly
Twelve is not a multiple of five

Factor Fiction, Factor Fiction
If there's a remainder that's a contradiction
A factor goes in evenly, and that's a fact
A factor goes in evenly, yeah that's a fact

(Bridge)
Every number has at least two factors
The number one and the number itself
But if a number has only two factors
The number one and the number itself
Then we're into prime time
'Cause that number is prime

Soloist & Kids:
Like two, three, five, seven and eleven
Two, three, five, seven and eleven

Kid:Do one more

Spoken:
Okay, fifteen!
Sung:
Is fifteen a multiple of one?
Kids:Factor!
Is fifteen a multiple of two
(SFX: Horn)
Kids:Fiction!

Right, is fifteen a multiple of three?
Kids:Factor!
Is fifteen a multiple of four
(SFX: Horn)
Kids:Fiction!
Right, is fifteen a multiple of five?
Kids:Factor!
Is fifteen a multiple of six?
(SFX: Horn)
Kids:Fiction!

Sung:
That's the idea
Factor Fiction, Factor Fiction
If there's a remainder that's a contradiction
A factor goes in evenly, and that's a fact
A factor goes in evenly, yeah that's a fact

Procedure:

1) Play the song.
2) Discuss the difference between a factor and a multiple. Work through the 2 examples from the song.
3) Demonstrate with several more numbers, such as 24 and 30. Students will record their results using multiplication facts (Ex: 1x24, 2x12, 3x8, 4x6) and with a list (1,2,3,4,6,8,12,24) Prove that 5 is not a factor using division. Remember, if there is a remainder, it's not a factor.
4) Write 2 more examples for students to demonstrate.

Evaluation: Teacher observation. Choose 4 different numbers to find the factors. Students will write in their journal the steps that they took to ensure that they found all of the factors of a particular number to illustrate the understanding of factors.