

# Little Twelvetoos

Goals of this activity:

A. Math/content goals

1. Review the base-12 number system.

B. Language and culture goals

1. Practice listening skills.
2. Practice new vocabulary.
3. Consider how language can be used in sexist ways and how to avoid it.

## Before you watch

We're going to watch a short video called *Little Twelvetoos*. What do you think it will be about? What do you think the main character will look like?

What is sexism? Can you give an example of how English can be sexist? What can we do about it?

## As you watch

Think about the meaning of this video, *Little Twelvetoos*. Why do you think it was made? Why do you think we are watching it? What is sexist about it?

## After you watch

- 1) With your group, try to fill in the words that are missing from the song on the next page. Most of the words are numbers, but some are other math-related words. Watch the video again and check your answers.
- 2) What is the point or meaning of this video?
- 3) Why do you think this video was made? Who do you think is the intended audience? What is sexist about its language?
- 4) Why do you think we watched this video? What is your opinion of it?

## Homework

A) Go to the website, answer the comprehension questions, and do the grammar exercise.

B) Answer the following questions on paper.

- 1) The number system that we use is called *base-ten* or *decimal*. Do you think the reason our system is base ten is that we have ten fingers and ten toes? That is, do you think we would have a base-12 system if we had 12 fingers? What if we had four fingers?
- 2) Why not use all twenty fingers and toes together? And why not have a base-10 system?
- 3) Why not use something else to count with (e.g., arms, hairs, or teeth)?
- 4) Can you think of any examples of where a different base, such as 2, 12, or 20, is used? (Hint: What about time?)
- 5) Imagine someone like Little Twelvetoed, but who has a different number of fingers and toes (e.g., 3, 4, 16). Give the person a name and write the beginning of a song about him/her.

## Little Twelvetoos

Now if man<sup>1</sup> had been born with \_\_\_\_\_ fingers on each hand, he'd also have twelve toes or so the theory<sup>2</sup> goes. Well, with twelve \_\_\_\_\_, I mean, fingers, he probably would have invented two more digits<sup>3</sup> when he invented his number system. Then, if he'd saved the \_\_\_\_\_ for the end, he could count and multiply by twelves just as easily as you and I do by \_\_\_\_\_.

Now if man had been born with six fingers on each hand, he'd probably count: one, two, three, four, five, six, seven, eight, nine, dek, el, doh. "Dek" and "el" being two entirely new signs meaning \_\_\_\_\_ and \_\_\_\_\_. Single digits! And his twelve, "doh", would be written 1-0. Get it? That'd be swell<sup>4</sup>, for \_\_\_\_\_ by twelve.

Hey little Twelvetoos, I hope you're well.  
Must be some far-flung<sup>5</sup> planet<sup>6</sup> where you dwell<sup>7</sup>.  
If we were together, you could be my cousin,  
Down here we call it a \_\_\_\_\_.  
Hey little Twelvetoos, please come back home.

Now if man had been born with six fingers on each hand, his children would have 'em too. And when they played hide-and-go-seek<sup>8</sup> they'd count by \_\_\_\_\_ fast. And when they studied piano, they'd do their six-finger exercises. And when they went to school, they'd learn the golden rule, and how to multiply by \_\_\_\_\_ easy: just put down a \_\_\_\_\_. But me, I have to learn it the hard way.

Lemme see now:

One times 12 is 12, two times 12 is 24.  
Three times 12 is 36, four times 12 is 48, five times 12 is 60.  
Six times 12 is 72, seven times 12 is 84.  
Eight times 12 is 96, nine times 12 is 108, ten times 12 is 120.  
Eleven times 12 is 132, and 12 times 12 is 144. Wow!

Hey little Twelvetoos, I hope you're thriving<sup>9</sup>.  
Some of us \_\_\_\_\_-toed folks are still surviving<sup>10</sup>.  
If you help me with my \_\_\_\_\_, I'll help you with your \_\_\_\_\_.  
And we could all be friends.  
Little Twelvetoos, please come back home.

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- 1 Man (non-count noun): all humans; humankind
  - 2 Theory (count noun): a guess based on facts.
  - 3 Digit (count noun): one of the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. For example, the number "29" has two digits, and the number "5361" has four digits.
  - 4 Swell (adjective): an old slang word for "great" or "cool". No one uses this word anymore!
  - 5 Far-flung (adjective): far away.
  - 6 Planet (count noun): a ball that moves around the sun, such as Earth or Mars.
  - 7 Dwell (verb): live.
  - 8 Hide-and-go-seek (proper noun): a game that children play. One child closes her/her eyes and counts to 100 while the others hide. Then the first child tried to find the others.
  - 9 Thrive (verb): live and be well.
  - 10 Survive (verb): live despite difficulties.

## Little Twelvetoos (key)

Now if man had been born with six fingers on each hand, he'd also have twelve toes or so the theory goes. Well, with twelve digits, I mean, fingers, he probably would have invented two more digits when he invented his number system. Then, if he'd saved the zero for the end, he could count and multiply by twelve just as easily as you and I do by ten.

Now if man had been born with six fingers on each hand, he'd probably count: one, two, three, four, five, six, seven, eight, nine, dek, el, doh. "Dek" and "el" being two entirely new signs meaning ten and eleven. Single digits! And his twelve, "doh", would be written 1-0. Get it? That'd be swell, for multiplying by twelve.

Hey little Twelvetoos, I hope you're well.  
Must be some far-flung planet where you dwell.  
If we were together, you could be my cousin,  
Down here we call it a dozen.  
Hey little Twelvetoos, please come back home.

Now if man had been born with six fingers on each hand, his children would have 'em too. And when they played hide-and-go-seek they'd count by sixes fast. And when they studied piano, they'd do their six-finger exercises. And when they went to school, they'd learn the golden rule, and how to multiply by twelves easy: just put down a zero. But me, I have to learn it the hard way.

Lemme see now:

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Eleven times 12 is 132, and 12 times 12 is 144. Wow!

Hey little Twelvetoos, I hope you're thriving.  
Some of us ten-toed folks are still surviving.  
If you help me with my twelves, I'll help you with your tens.  
And we could all be friends.  
Little Twelvetoos, please come back home.