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# How to Be an **EARTHILING**



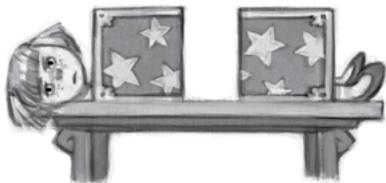
Earth's Got  
Talent!



★ Mission Guide ★

# Earth's Got Talent

## Mission 1: How Many Ways Can You Cut It?



Dear classmates,

*Trixie wants to do a magic act and saw me in half! She says it's just pretend and I won't really get hurt, but I'm a little nervous about that. What do you think I should do?*

Your friend,  
Grace

### TASK:

Find out how many different ways you can divide shapes into equal parts. Cut out three 2-dimensional shapes from a piece of paper: a square, a rectangle, and a circle.

### FOCUS QUESTIONS:

- 1 How many different ways you can divide the square in half? Draw lines on the square to prove your answer.

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- 2 Can the rectangle be divided into three equal parts—or thirds? Draw lines on the rectangle to prove your answer.

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- 3 Can the circle be divided into four equal parts? Draw lines on the circle to prove your answer.

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### SUGGESTED SUPPLIES:

- construction paper
- ruler

### CCSS.MATH.CONTENT.2.G.A.3.

Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not be the same shape.

### CCSS.MATH.CONTENT.3.NF.A.3.

Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

# Earth's Got Talent

## Mission 2: A Card for Spork



Dear classmates,

Every day Spork has so many questions for me about life on Earth. I am doing my best to teach him everything I know—like how to braid dandelion stems and how to be brave in front of a crowd. What things do you think are important for Spork to know about life on Earth?

Your friend,  
Grace

### TASK:

Create a card for Spork to celebrate his one-month anniversary of living on Earth. Inside the card, write a letter to him explaining something important that you think he hasn't learned yet. It might be a skill, a character trait, or some information about Earth that Spork hasn't discovered in his first four Earthling adventures.

### FOCUS QUESTIONS:

- 1 What are at least three things that you think Spork still needs to learn about life on Earth?

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- 2 What is the most important thing from your list above for Spork to know? What will you teach him about this topic?

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### SUGGESTED SUPPLIES:

- cardstock or heavy paper
- crayons

**CCSS.ELA-LITERACY.W.2.2.** Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

**CCSS.ELA-LITERACY.W.3.2/4.2/5.2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

# Earth's Got Talent

## Mission 3: Magical Math Trick



Dear classmates,

I love magic tricks! Some of my favorites are card tricks. I love how I can amaze my friends by guessing which card they have. Mrs. Buckle showed me how I can do a math magic trick. You should try it!

Your friend,  
Trixie

**TASK:**

Try out this math trick at least twice, using a different number each time.

Step	Trial 1	Trial 2
1. Pick a number from 1 to 9.		
2. Multiply the number by 5.		
3. Multiply that number by 2.		
4. Eliminate the 0 from the ones place.		
5. What number do you have?		

**FOCUS QUESTIONS:**

1 How could you use this trick to guess a friend's mystery number?

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2 Why does this trick work?

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**BONUS:**

Develop your own math magic trick. Explain how it works.

**CCSS.MATH.CONTENT.3.OA.B.5.**  
Apply properties of operations as strategies to multiply and divide.

**CCSS.MATH.CONTENT.4.NBTA.1.**  
Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

# Earth's Got Talent

## Mission 4: Arranging an Auditorium



Dear class,  
I am so excited for the next talent show. We will have a lot of guests visiting, and I need your help setting up all the seats!

Your teacher,  
Mrs. Buckle

### TASK:

There will be lots of visitors. We need to set up 200 chairs. Before they can be set up, we need to create a plan to make sure each row has the same number of chairs.

### FOCUS QUESTIONS:

- 1 How many different ways can you set up the 200 chairs so that each of the rows has an equal number of chairs? Use words and pictures to show your solutions.

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- 2 What way do you think is the best way to set up the chairs? Why?

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### SUGGESTED SUPPLIES:

- graph/grid paper

**CCSS.MATH.PRACTICE.MP1.**  
Make sense of problems and persevere in solving them.

**CCSS.MATH.PRACTICE.MP4.**  
Model with mathematics.

**CCSS.MATH.PRACTICE.MP7.**  
Look for and make use of structure.