Ratio & Proportion Task 1

Task Card 1

Listen to the story, "If You Could Hop Like a Frog"

https://www.youtube.com/watch?v=WIb7pvh3MII

You and your partner share your thoughts:

What would the world be like if you were only one foot tall?

Task Card 2

In this performance task, you and your partner will COMPARE (level 4) measurements of different items in the classroom. You will also ANALYZE (level 4) these measurements in relation to YOUR height and you will CONSTRUCT (level 5) ratios and proportions.

Task Card 3

Using the table on the following task card (you copy the table on a sheet of paper), ASSESS (level 5) the actual measurements of the items in the table (make sure you label).

	Actual Height	Proportion Set-Up	New Size
Your Height	60 inches	XXXXXXXXXXX	12 inches
Pencil	6 inches	$\frac{60}{6} = \frac{12}{x}$	x = 1.2 inches (60 ÷ 5 = 12, so 6 ÷ 5 = 1.2)
Desk Length			
Desk Width			
Door Height			
Foot Length			
Chair Height			
Little Finger Length			
Length of lockers			
Room Width			
Height of File Cabinet			
You choose object			

Task Card 4

Next, write a ratio using your height in inches, compared to being shrunk to your new size of 12 inches: 12" : _____

(YOUR actual height in inches will be recorded in the blank)

Then, set up a proportion for each item, comparing the item to your new size of 12 inches and your old size of _____ inches.   (see the table—the pencil has been done for you)

Solve the proportion (round answers to the nearest hundredths place). Write your answers in the "new size" column (make sure you label).

Task Card 5

Once you and your partner have completed the measurements and set-up and solved the proportions to find the "new size" values, you will write a minimum of a 5-paragraph story. The story needs to have:

- An introduction paragraph, 3 body paragraphs, and a conclusion.
- Be written in a manner as if you were shrunk down to one foot tall.
- You need to include at least 7 items from the worksheet into your story.

Story sample

"The Incredible Shrinking Woman"

"One day after the final school bell rang at 3:05, I was outside my classroom doing hall duty. When I returned to my room I discovered a surprise on my desk, a small bag of tasty looking chocolates. There was no note, but I was hungry so I took my first bite. Immediately, the room began to expand until it seemed the ceiling was miles away. Suddenly, I realized I had shrunk. I ran around in circles calling for help until I stumbled over a large wooden plank. I soon realized it was a ruler; I laid down next to the ruler and discovered that instead of being 5'3" tall, I was now exactly one foot in height! 12 inches tall??? What was I going to do?

I decided I had nothing to lose so I pulled out another chocolate – that one inch square chocolate suddenly shrunk just like I had! I ate the shrunken chocolate and leaned against a desk to think. Suddenly, the desk shrunk proportionally with me...

Task Card 6

Use the rubric below, for your story.

	0	½	1
Accuracy / Terminology (Double Pts)	Concepts are not explained accurately.	Concepts are explained accurately but specific vocabulary is not used.	Concepts are explained accurately AND specific vocabulary is used.
Supporting Details (Double Pts)	Paragraphs are missing a topic sentence or do not have details to support the claim.	Paragraphs include a topic sentence AND details that begin to support the claim.	Paragraphs include a topic sentence AND details that fully support the claim.
Written Expression	Paragraphs are not clearly written or contain errors in grade level conventions that interfere with understanding.	Paragraphs are clearly written but have some errors in grade level conventions that do not interfere with understanding.	Paragraphs are clearly written with no errors in grade level conventions.