Focus Standards and Claim

Claim 2
3.MD.A

Stimulus

Art Day!
You are helping your 4th grade class organize an Art Day.
There will be three stations:

• Painting
• Pottery
• Chalk Art

You have two tasks. You will help create the supply list and the schedule for Art Day.

Task 1: Supply List
You need to make sure there are enough supplies at each station for everyone to participate. You will use the following information to create a list of art supplies for your class.

• There are 24 students in your class.
• Each student needs —
  — 2 paint brushes for the Painting Station.
  — 3 pounds of clay for the Pottery Station.
  — 5 pieces of chalk for the Chalk Art Station.

Task 2: Schedule
You also need to help plan the schedule for Art Day using the following information.

• The day starts at 9:00 a.m. and ends at 2:00 p.m.
• Your entire class will rotate through the three stations together.
• The Break has to be at least 10 minutes.
• The Break and Lunch together total 1 hour.
• The three stations (Painting, Pottery, and Chalk Art) do not need to be the same amount of time, but each one has to be 30 minutes or longer.
When the class went to the Painting Station at 9:00 a.m., the container of paint was completely full. After 6 of the 24 students got their share of paint, the paint level had dropped to the level shown in the following picture.

Katie thinks there is not enough paint for the rest of the students.
Do you agree with Katie? Explain why or why not. Use the information shown in your explanation.

Sample Responses

Sample Response A
No she is wrong there is enough because 6 kids got less than one fourth of paint but there’s 24 kids, and $4 \times 6 = 24$ so there’s enough for everybody to use some paint.

Sample Response B
I disagree with Katie because some people will use more paint and some people will use less paint so it depends on students.
| Sample Response C | No, I do not agree with Katie because $4 \times 6 = 24$ so there is enough for everyone. People 6 - 1 group – less than $\frac{1}{4}$ People 6 - 2 group – a little more than $\frac{1}{4}$ People 6 - 3 group – a little more than $\frac{1}{4}$ People 6 - 4 group – a little more than $\frac{1}{4}$ |
| Sample Response D | No there are 4 different levels each level 6 students use and $4 \times 6 = 24$ so there is enough. |
| Sample Response E | I think there is enough paint because there is only 3 stations so paint brushes and 3 pounds of clay and 5 pieces of chalk so I think it will be enough. I do not agree with Katie. |
| Sample Response F | 4 levels $4 - 4 = 0$ levels left but everyone got to use. 24 students $24 - 18 = 6$ $24 \div 6 = 4$ and 6 students = 1 level of paint |