



# M2C3 – Woolly Pocket Task

## Annotated Student Work

The following provides samples of student work and descriptions of the solution paths resulting from implementation of the Woolly Pocket Task.

# Factors that Students Considered

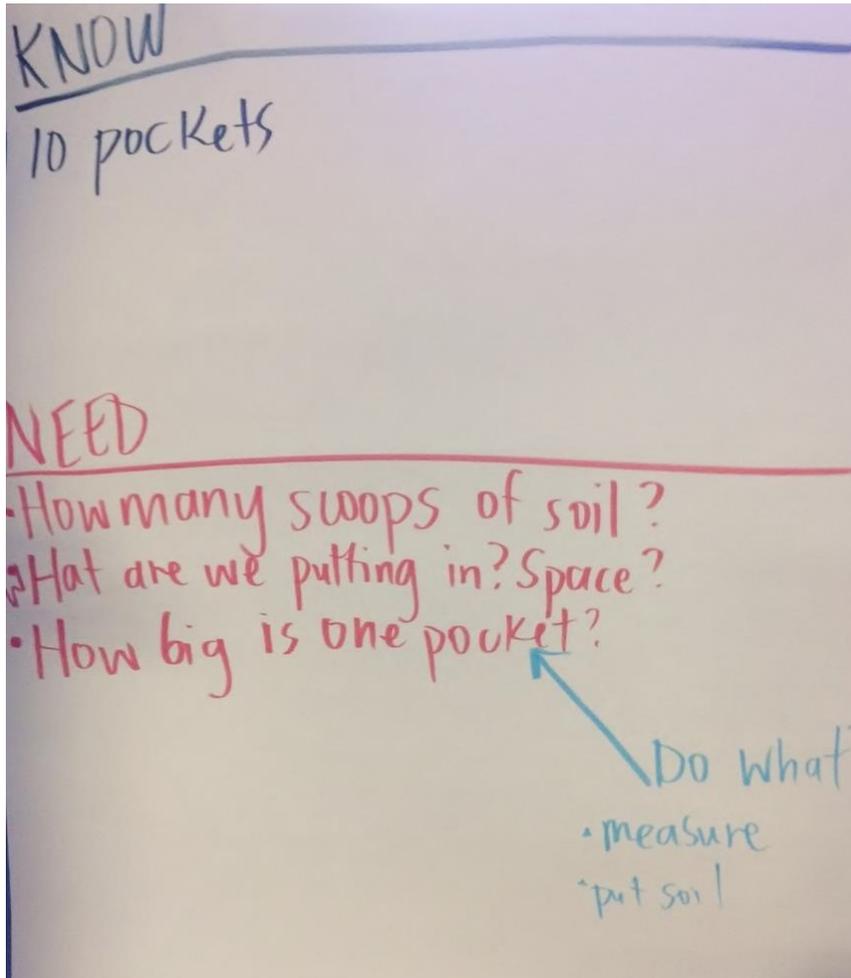
- How many pockets did they need to fill?
- How much soil each pocket could hold?

# Connections to Students' Experiences

- Creating gardens in small spaces.

# Making Sense of the Task:

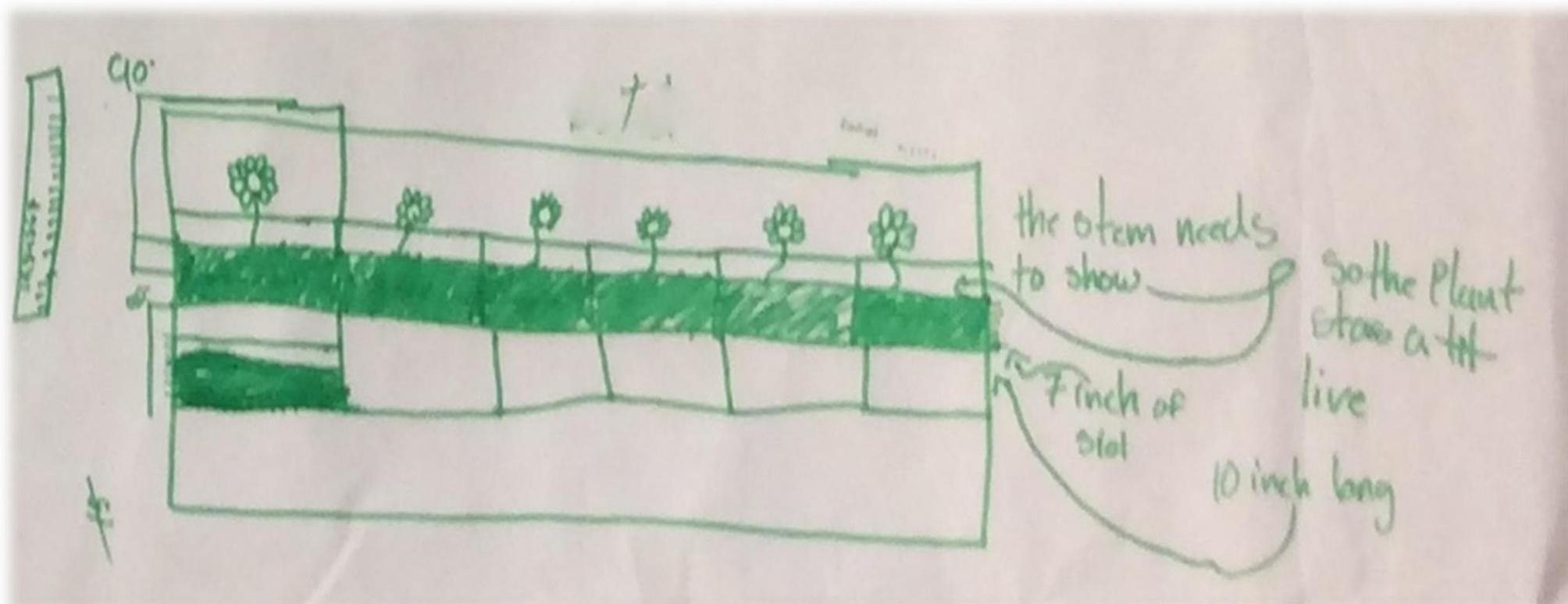
Group Warm-up – What do you know? What do you need to know?



The Woolly Pocket used for this task contained 10 pockets. Students could see this from the picture. They must determine how much soil is needed for each pocket. Through discussion they decided that they could determine “how big” one pocket was by measuring it or filling it with soil and measuring the amount of soil used.

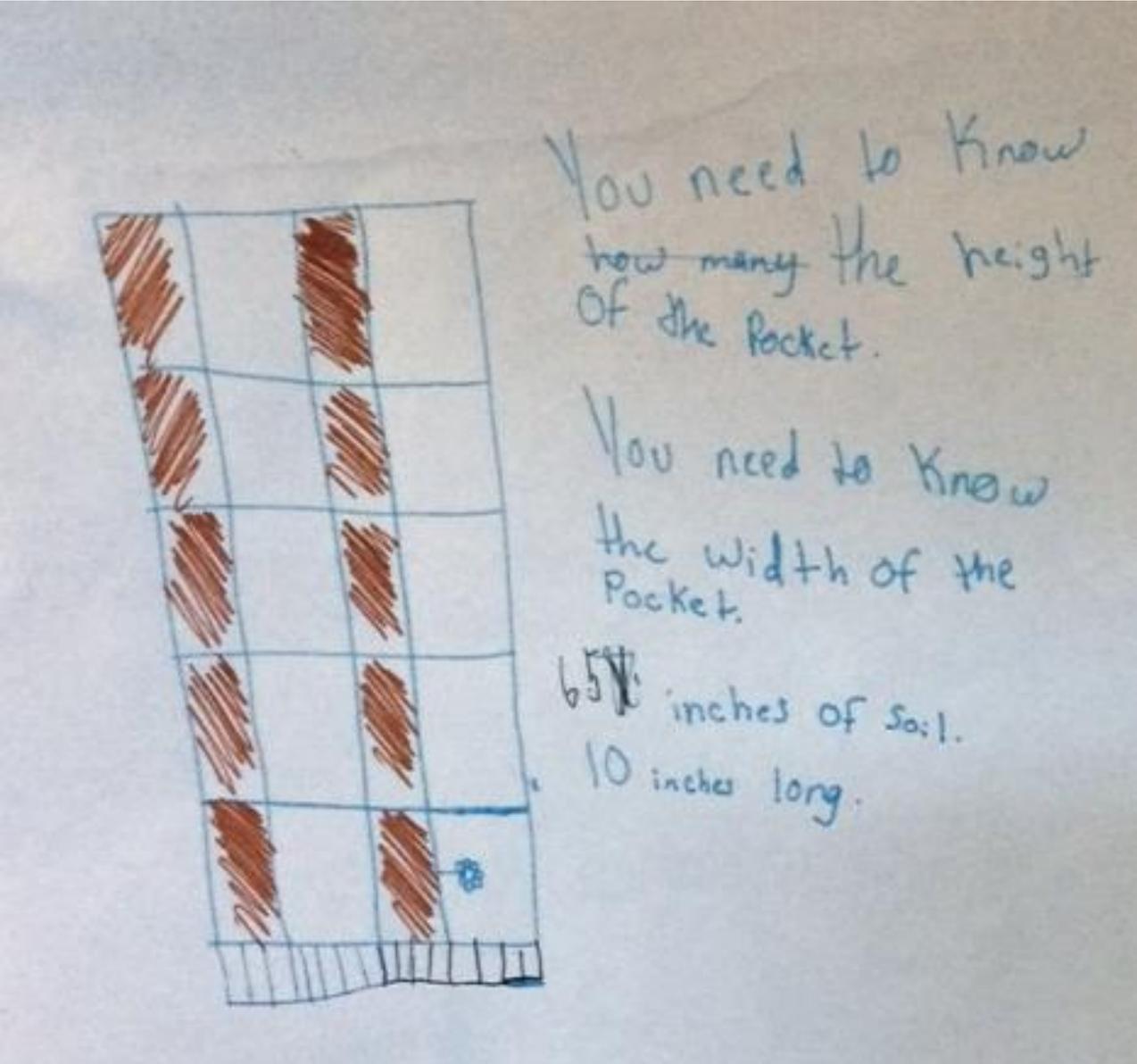
### Grade 3

Students used pictures to help them think about how to measure the amount of soil needed. This group of students determined that they would not want to completely fill the pockets with soil but struggled with how to measure the amount needed.



**Grade 3**

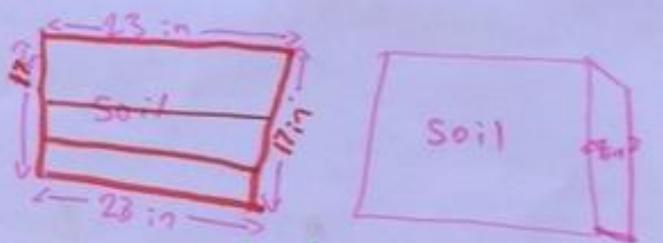
Grade 3 students used 2-dimensional measurement (height and width) to attempt to determine the capacity of 1 pocket. They determined that they needed 65 inches of soil 10 inches long.



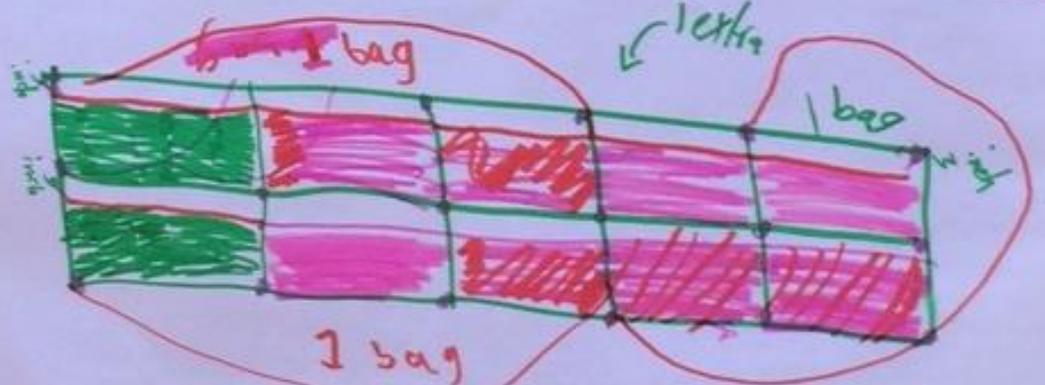
How many bags do we need of soil  
To fill the wooly pockets

0 6  
4 2  
6 2  
1 2  
8 1  
5 1  
2 1  
3 6  
3 9  
2 9  
1 3

If one bag equals 3 pockets



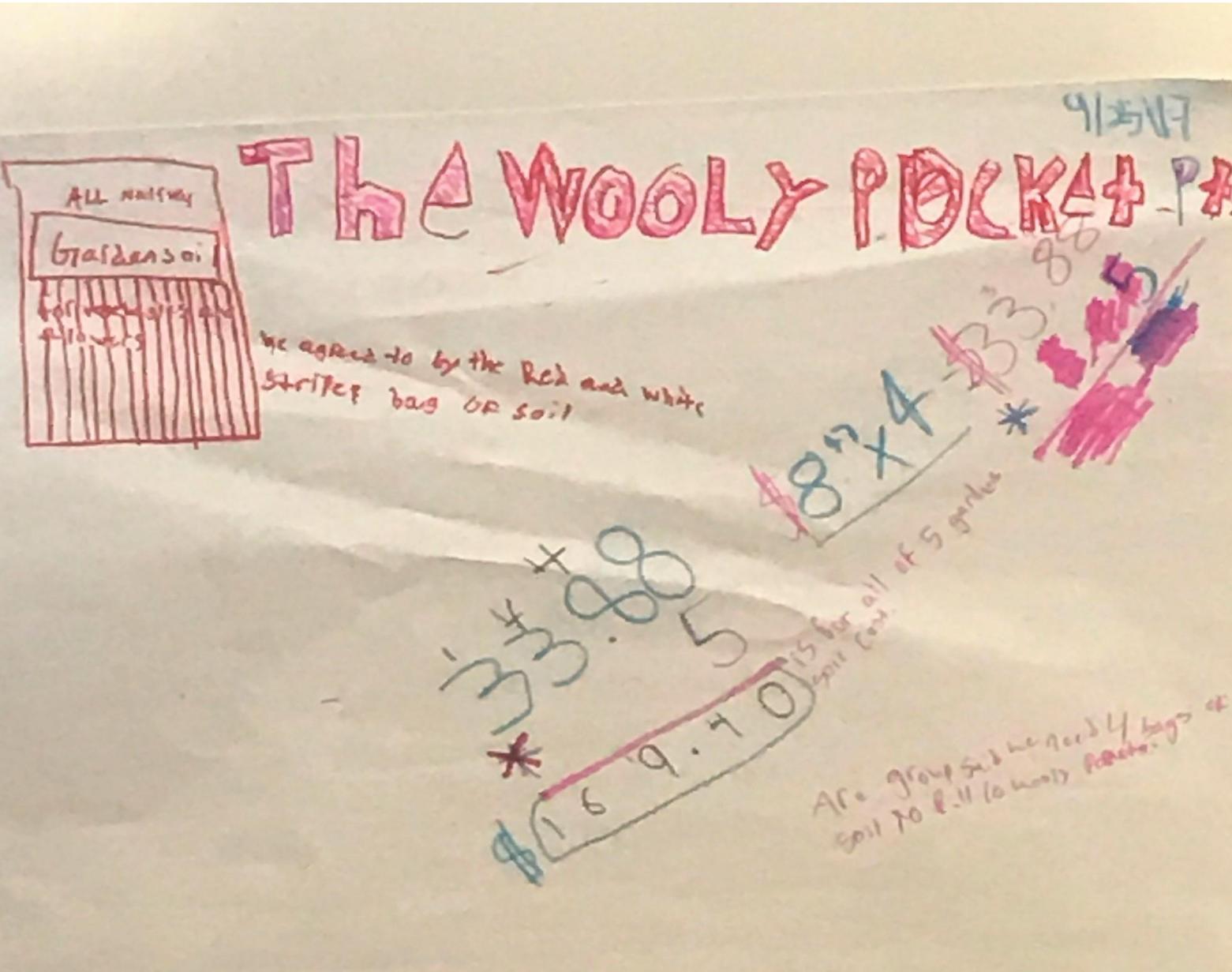
We will need  
4 bags of soil  
to complete all  
of the wooly pockets.



Grade  
3

Students measured one pocket to determine the amount of soil it could hold. The drawing shows a 3-dimensional pocket, but the measurements are two dimensional. The solution does not explain how a ratio of 1 bag fills 3 pockets is determined. Using the ratio of 1 bag to 3 pockets and a drawing of the Wooly Pocket set containing 10 pockets the solution shows that 3 bags can fill 9 pockets. Thus 4 bags of soil are needed to fill all 10 pockets.

## Grade 3



This group focused on the cost of the soil. They selected one brand, the red and white striped bag. Then, using 4 bags per set of 10 Woolly Pockets, they multiplied the price \$8.47 per bag by 4 with a total cost of \$33.88 for the 10-pocket Woolly Pocket. They note : “ ‘Are’ group said we need 4 bags of soil to fill 10 Woolly Pockets. “ However they do not explain how they determined they needed 4 bags for 10 pockets. The students then show that they need \$169.40 to fill 5 Woolly Pocket gardens.