Collage - Lesson 4 - Minecraft Your Face - SD

Introduction
In this activity you will use Fraction Mash to create an image of your face in the style of Minecraft. Once you have your basic design, you will be guided through a series of questions to make changes and express each face as an algebraic expression. Will any of your faces be recognizable by your classmates as you? Which parts of your face help your classmates to recognize you in your creations?

This is a sample Fraction Mash screenshot showing one step in the process to Minecraft your face. As you tap grids on and off you are playing with fractions.
Minecraft

The block faces are a signature part of Minecraft. How will you create a portrait of yourself so that you’d fit into the world of Minecraft? Will you look like yourself? Or a zombie? Or maybe one of the other creatures in the game? Or, a new face all together?

Lastly, will anyone in your class know it’s you?

To do

Part 1 - Simple Minecraft Face - Denominator 25

1) Open Fraction Mash, take a new selfie on the left grid.
2) Next you’re going to need the colors of Minecraft. Find your own color samples either online or through your teacher, or, snap a picture of this:

A few color samples from Minecraft.

3) The default grid in Fraction Mash is square, and switch the denominator to 25.
4) For Part 1, use only your selfie and two other colors.
5) Keep your eyes, nose and mouth, like the sample image above.
6) After you make your first mashup, save the image to your camera roll. Then, you can import that image on the left side, and now you will be adding colors to that image. Repeat that process until you have your first Minecraft face.
Questions

1) What fraction of your first Minecraft face is Color 1? Color 2? Your face? Express this as a single equation.

2) As you look around at your classmates images, and they look at yours, are you able to recognize each other? What are the distinct characteristics that make faces recognizable?

Part 2 - Creative Minecraft Face - More complex

1) Repeat the steps in Part 1, except now you are allowed to use different grids, denominators, and as many colors as you want. Save images to your camera roll, and import to remix your mashups.

2) For Part 2, keep track of your iterations in the chart below.

<table>
<thead>
<tr>
<th>Iterations</th>
<th>List Colors used / Photo</th>
<th>Equation showing sum of all the parts (Ex: 9/25Y + 1/5G + 11/25Photo = 1/1)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>Final</td>
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Questions

3) What fraction of your final Minecraft face is not using your selfie pic?

4) What fraction of your final Minecraft face would you estimate to be the essential pieces so that one of your classmates could recognize you? Which parts are those?

5) In Minecraft, the zombies are green and easily recognized. What fractions of colors in a Minecraft face would make it hard to know if a character was helpful or dangerous?

Solve the following three problems.

a) \[ \frac{1}{2} + \frac{3}{16} + x = 1 \]

b) \[ \frac{3}{25} + \frac{1}{4} + x = 1 \]

c) \[ \frac{7}{25} + \frac{2}{9} + x = 1 \]
6) Choose one of the problems above and explain how it could be represented by a picture made with Fraction Mash? (Hint: It could involve a re-mix.)

7) How is the image you described in #6 like the images you made in this activity?