FRACTION MASH ACTIVITY #3: PERSONALITY PLUS

In this activity, students will use Fraction Mash to create an infographic that shows how each piece (i.e. each fraction) of their personality makes up who they are as a “whole.”

LEARNING GOALS
1. Students will create a collage or infographic depicting their personality and interests using Fraction Mash.
2. Students will determine the fractional parts of their personality collage by counting parts (numerators) and whole (denominators).
3. Students will rank the importance of images to correspond to the size of the fractions by combining various sized images into the grid in Fraction Mash.
4. Students will add fractions to determine the sum of their collage parts (to equal one whole).

PREP
Instructor should have foundational knowledge of Fraction Mash app. For review go to: noticing.nysci.org/lesson/fraction-mash-activity-1/This activity was adapted from https://noticing.nysci.org/lesson/fm-collage-3-personality-plus/, which may be referenced for more information.

MATERIALS
• iPads with Fraction Mash app.
• Images of collages, self-portraits, or infographics (to be used as reference)
• Picture dictionary (Spanish-English version supplied)
• Design notebooks (optional)

KEY VOCABULARY
• fraction
• whole
• part
• denominator
• numerator
• equivalent
• greater than
• less than
• sum
• collage
• self-portrait
Fraction Mash Activity 3: Personality Plus

**GETTING STARTED**

- Students will look at collages, self-portraits, and infographics as examples of what their Personality Plus could look like.
- Each student will consider what is important in their lives, from family to culture, hobbies, language, favorite movies or TV shows.
- Students can plan their Personality Plus in advance, using their notebooks to write down or sketch the fraction of each image they want in the final product.

*Guiding Questions:*
- What do these images tell us about the person who made them?
- How are collages and self-portraits different from regular paintings?
- What interests take up a larger portion of your personality? Are these shown as a larger portion or larger fractional part of your whole?

*Share and Present*

Students will share their initial mashups with the class or with a partner, specifically talking about why they chose each image and what it represents to them.

**SENTENCE FRAMES FOR USING MATH LANGUAGE**

<table>
<thead>
<tr>
<th>My personality mashup tells some things about me.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The total number of parts of my mashup is ______. This is the whole me.</td>
</tr>
<tr>
<td>2. The biggest picture is ________. It takes up ______ pieces of the whole. This fraction is ________.</td>
</tr>
<tr>
<td>3. The smallest picture is ____________. It takes up ______ pieces of the whole. This fraction is ________.</td>
</tr>
<tr>
<td>4. The equation of ALL of my fractions is _____ + _____ + _____ + ____ + ____ = 1 whole ME!</td>
</tr>
</tbody>
</table>

*TIP:* Sentence Frames for Using Math Language can be useful, but be sure to use any modalities necessary to encourage different forms of expression (e.g., drawing or acting out). *Remember:* We are looking for mathematical understanding and language development, not just vocabulary use.
Fraction Mash Activity 3: Personality Plus

DIGITAL DESIGN IN FRACTION MATH

Students will create a mashup using Fraction Mash that are made up of different things that they think are important parts of their personality or their interests.

- On the iPad, students will collect images from the internet or take photos of themselves, representing the things they think are most important to them and begin combining or “mashing” them up.
- After each combination, students will import the previous mashup and combine it with another image that represents a part of them. They will continue this process until they have all the parts of their personality represented.
- Students can choose to toggle on or off the grid on their mashups as they combine, depending on whether they want the squares in the end product.

Guiding Questions
- How many pieces of you are in your final collage?
- What is the equation of all of your Personality Plus parts adding up to 1 whole?
- Which parts are most important to you? How can someone tell just from looking at your personality mashup? What fraction of the whole is that?

Share and Present
Students will share their final Personality Plus mashup collages with the class. Printing out their mashups along a wall or displaying on a smart board side by side is useful. Encourage students to discuss the fractional parts of their personality that they included in the collage.

TIP: Students can enlarge or shrink an image in the app to take up a larger or smaller portion of the total mashup according to the image’s importance in their life.
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QUESTIONS FOR UNDERSTANDING

• What is your favorite thing you included in your mashup? Is it half of your personality? Less than half? Or more than half?
• As a class, let’s look across all of the personality mashups. What seems to be the largest part of each person’s personality? What is the fractional part of the whole?

EXTEND YOUR LEARNING

• Print out your Personality Plus mashup collage to display and write a story to go with it.
• Print out the Personality Plus mashup collage on a t-shirt iron-on transfer sheet and create a Personality Plus t-shirt!
• Make another Personality Plus collage and mash it up with your first one! How do the fractions change? What happens to the parts of the whole?