

Abstract Art / Math Project / Paul Klee



Our second lesson focuses on the artwork of Paul Klee, a Swiss German artist. Originally called *Burg und Sonne*, this painting depicts a castle with a sun. Klee was part of the movement that included Expressionism, Surrealism, and Cubism. We will look at a few of his paintings and create our own rendition on heavy cardboard. We will apply what we've learned about basic fractions to other fraction concepts, including simplifying fractions, writing ratios, adding and subtracting fractions with like and unlike denominators. Be creative!

Your finished project must include:

at least five different colors

fractions with at least four different denominators

at least three different geometric shapes (not including the sun)

Your grade will reflect meeting the above requirements as well as accurately calculating the following math concepts:

- part-to-whole fractions and part-to-part ratios
- equivalent fractions (if applicable), and
- fraction sums and differences.

Multiples of 2: squares

Multiples of 3: rectangle

Multiples of 4: triangles

Multiples of 3: red

Multiples of 5: green

Multiples of 6: blue

Extension:

There are many different shapes in your Castle and Sun rendition. What percent of the entire painting are the squares? The rectangles? The other shapes? Identify the other shapes.

Paul Klee Castle and Sun

Answer the following and simplify all fractions (ratios)

Count the number of squares.

Squares =

Count the number of triangles.

Triangles =

Count the number of rectangles.

Rectangles =

Count the number of miscellaneous shapes:

Miscellaneous:

Count the number of total shapes:

Total:

Write the ratio (fraction) of squares to triangles:

Write the ratio of squares to rectangles:

Write the ratio of triangles to rectangles:

Write the ratio of squares to miscellaneous shapes:

Write the ratio of triangles to miscellaneous shapes:

(over)

Write the ratio of rectangles to miscellaneous shapes:

Using your shapes, create a fraction that is closest to one.

Using your shapes, create a fraction that is closest to one-half.

Using your shapes, create a fraction that is greater than one.