

# Klee Math

*Third Grade*  
Adapted by C Moore

## CORE SUBJECT AREA

Math

## ART FORM + ELEMENTS

Visual Arts

## MSCCR STANDARDS

NF.1. Understand a fraction  $1/b$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $a/b$  as the quantity formed by parts of size  $1/b$

## MSCCR CREATIVE ARTS STANDARDS

VA: Cr2.1.3 Organize and develop artistic ideas and work.

- a. Create personally satisfying artwork using a variety of artistic processes and materials.

## DURATION

45 Minutes

## OBJECTIVES

The learner will learn about the genre of expressionism and will learn about warm and cool colors. The student will learn how to calculate the area of a rectangle

## MATERIALS NEEDED

One inch grid paper, scissors, pencil, crayons or markers, glue sticks, black construction paper, and student worksheets, copy of art print Farbtafel by Paul Klee

## VOCABULARY

Fraction  
Denominator  
Numerator  
Area  
Perimeter  
Length  
Width  
Calculate  
Expressionism  
Warm  
Cool colors  
Color Wheel

## RECOMMENDED RESOURCES

Definition and information about expressionism

<https://www.ducksters.com/history/art/expressionism.php>

Slide Share for introduction <https://www.slideshare.net/AliceFernndz/paul-klee-28367606>

Projectable Print of Farbtafel <https://www.homeschoolmath.net/teaching/pdfs/3-5/G4V2BL2.pdf>

## LESSON SEQUENCE

### Introduction

The students will watch a slideshare about the life and art Paul Klee followed by discussion.



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## Transition

- The teacher will show the students an art print, Farbtafel, by Paul Klee. The teacher will ask the students what connections they see to math.
- The teacher will introduce the students to the art style of expression.
  - (Expressionism-an art style in which the artists try to express a feeling with what they create. Colors and shapes are not used in a way people see them, but as the artist feels them.)
- The teacher will then use the color wheel to introduce the students to warm and cool colors.
  - (Warm colors are vivid and energetic and tend to advance in space. Examples: red, orange, yellow. Cool colors give an impression of calm and create a soothing impression. Examples: purple, blue, green)
- The teacher and the students will analyze Farbtafel and name the warm and cool colors.

## Description

- The students will design a checkerboard inspired by Paul Klee's Farbtafel by using one inch grid paper. The students will use their new-found knowledge of warm and cool colors to create a color palette.
  - The students will use their artwork to calculate fractions, perimeter, and area. The students will also write a sentence explaining how their creation makes them feel.
1. The teacher will give each student a piece of one-inch grid paper, scissors, glue sticks, pencil, student worksheet, and markers or crayons.
  2. The students may leave the grid paper as is or cut it down to a smaller size.
  3. The students choose a color palette (warm or cool colors). The students should select three colors in that color palette.
  4. The students color each individual square on their grid paper.
  5. The students cut out (around the outside) of their checkerboard design.
  6. The students glue the checkerboard down to black paper. (Optional: The teacher may want to trim the black paper making it look more like a frame.)
  7. The students will record the fractions used of each color and calculate the area and perimeter of their design on the student worksheet. The students will also tell how their inspired art makes them feel.

## EXTENDED LEARNING ACTIVITIES

Along with warm cool colors, neutral colors could also be a choice for a color palette. This lesson could be adapted to use fourth grade to teach tints (add white) and shades (add black).

## SOURCES

<https://www.weareteachers.com/teach-math-with-mondrian-calder-warhol-and-others/>

## TIPS+FREQUENTLY ASKED QUESTIONS

Depending on what math standards have been taught, this lesson can be adapted for students to write multiplication and/ or division facts (fact families), fractions, area, perimeter.