Cupcake Color Wheel

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Curriculum Correlations

The artifact which follows could be used with the following curricula:

- Food Studies 10/30
- Design Studies 10/20
- Interior Design 30
- Arts Education (all levels)

Foundation Objectives

- To apply independent learning skills in the preparation of nutritious foods (FOOD)
- To be creative when applying knowledge to food preparation (FOOD)
- To understand and practice safety in the preparation and storage of food. (FOOD)
- To gain a broad foundation of design fundamentals. (INDE)
- To apply design fundamentals to develop an aesthetic and functional living space. (INDE)
- To understand and use vocabulary, and forms of expression that characterize interior design.
- To understand and apply the design process. (DEST)
- To use a variety of materials and fabrication processes to design and create a product. (DEST)
- To understand and appreciate the relationship between function and aesthetics. (DEST)
- To maintain and present a design portfolio. (DEST)
- To use various techniques and media to make high quality presentations. (DEST)
- To develop skills through study of design that may lead to a variety of career pathways (DEST)

Cross-Curricular Connections:

The Cupcake Color Wheel has curricular connections to the following Practical and Applied Arts strands, modules and learning objectives:

Food Studies Modules

FOOD01- 1.1, 1.4, 1.5
FOOD03- 3.1, 3.7, 3.9
FOOD12- 12.1, 12.2, 12.4. 12.6, 12.7, 12.8, 12.10
FOOD22- 22.2, 22.4

Interior Design Modules
INDE01- 1.1, 1.8, 1.9. 1.10, 1.11

Design Studies
DEST02- 2.2

SUMMARY

The Cupcake Color Wheel activity provides a meaningful, memorable way for students to study Color Theory. Used in my Practical and Applied Arts 10- Survey class, it is part of the Interior Design module.

Through this activity, students learn color terminology, mixing colors, and gain knowledge and understanding in the concepts of complementary colors, values, and chroma. If this activity is completed as part of a Food Studies class, it provides students an opportunity to gain knowledge and skills in the kitchen basics, and in the preparation of cakes and frostings.

Teacher Preparation

Supplies needed:

- 26 cupcakes/group are needed for this activity. These can be made from one standard cake recipe or cake mix- the choice to use 'scratch cake' or 'mix' will depend on the class, student age/skill level, etc.
- Ingredients for basic white cake and icing, cupcake liners, food coloring- red, blue, yellow and black ('gel' works best for this to achieve intense primary colors), assorted kitchen equipment

- It may be easier for Teacher to prepare Icing, as working with the 'gel' food coloring can be very messy and staining.
- If this activity is done outside of a PAA classroom, it may be necessary for Teacher to prepare the cupcakes in advance, etc.

Lesson Planning:

- 1st Day- complete "Part One"
- 2nd Day- begin "Part Two", may need to continue on 3rd Day depending on class time restrictions

Reflection

I am confident that students enjoyed the Cupcake Color Wheel activity, and that it provided a memorable experience, and knowledge acquisition and retention of Color Theory for my Practical and Applied Arts 10 students.

Students utilize *Creativity, Collaboration and Critical Thinking* skills throughout this activity. They are also asked to photograph the product and add it to their *Digital* media collections, portfolios, etc.

In general, the supplies needed are not costly. However, the 'gel' food coloring is a bit pricy (although very little is usually needed), and may not be locally available (I get it at Michael's in Saskatoon). As previously mentioned, the 'gel' is somewhat messy to use, so I would recommend that the Teacher prepare the Icings. This also ensures that all groups begin with the same intensity and value of the primary hues.

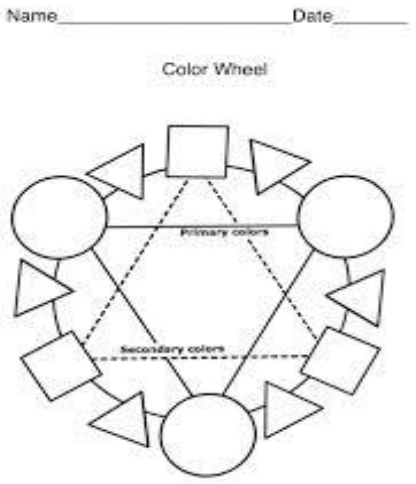
Colour Wheel

Value Gradient

Chroma Scale

Student Handout

Cupcake Color Theory



You will be able to gain understanding of:

- The design element "color"
- How secondary and tertiary colors are created
- Colors and their complements
- The concept of color "values"- tints and shades
- The concept of color "chroma"- brightness or dullness

Part One

Prepare cupcakes and icing.

Part Two- The Color Wheel (use 13 cupcakes)

Step 1-

You will be given icing in the three PRIMARY Colors: _____, _____ and _____.

- Ice ONE cupcake in each of the PRIMARY colors. Place these at the "point" of an (imaginary) equilateral triangle.

Step 2-

Combine a small amount of TWO primary colors to create each SECONDARY color.

_____ + _____ = _____
(primary hue) (primary hue) (secondary hue)

_____ + _____ = _____
(primary hue) (primary hue) (secondary hue)

_____ + _____ = _____
(primary hue) (primary hue) (secondary hue)

- Ice ONE cupcake in each of the SECONDARY colors. Place these at equidistant points in-between the PRIMARY colors.

Step 3-

Combine a small amount of ONE PRIMARY and ONE SECONDARY colors to create each TERTIARY color (these will be named with the Primary Color first ie: Red-Orange)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

_____ + _____ = _____
(primary hue) (secondary hue) (tertiary hue)

- Ice ONE cupcake in each of the TERTIARY colors. Place these at equidistant points in-between the PRIMARY and SECONDARY colors.

Step 4-

Combine a small amount of ALL three PRIMARY colors.

_____ + _____ + _____ = _____

What "color" is created when ALL 3 PRIMARY colors are combined?_____

What is this type of color considered?_____

- Ice ONE cupcake in the NEUTRAL color, and place at the CENTER of your COLOR WHEEEL

Step 5-

NOW- Take a **PHOTO** of your COLOR WHEEL, before you EAT IT

- **Enjoy!**

<u>Part Three- Value Gradient</u> (use 7 cupcakes)

Step 1-

Choose ONE HUE to use for this activity.

- Ice <u>one</u> cupcake in this hue (this will be the middle of your values gradient)

Step 2-

You will need WHITE icing and a very small amount of BLACK icing

To the WHITE icing, add a very small amount of your chosen HUE to create a <u>TINT</u> (very pale).

- Ice a 2nd cupcake with a small amount of this.
- add more of your chosen HUE to create slightly darker tints, for the next two cupcakes (you are aiming to reach the original HUE in the center of your gradient)

Step 3-

To the original HUE, add a small amount of BLACK to create a deeper SHADE

- Add increasing amounts of black icing to the HUE to create deeper SHADES (very deep)

Step 4-

NOW- Take a **PHOTO** of your <u>VALUES GRADIENT</u>

<u>Part Four- Chroma (Intensity) Scale</u> <u>(use 6 cupcakes)</u>

Step 1-

Choose TWO COMPLEMENTARY COLORS for this activity. These will be a

PRIMARY (_____) and a SECONDARY (_____)

- Ice one cupcake with one of these colors- this will be the top of your CHROMA gradient.

Step 2-

Add a small amount of the COMPLEMENTARY COLOR to your chosen HUE to <u>DULL its INTENSITY</u>

- Add increasing amounts of the complementary color to the original Hue until you have a very dull tone of the original hue (ie: mustard yellow from adding violet to bright yellow)

Step 3-

- NOW- Take a **PHOTO** of your <u>CHROMA (INTENSITY) GRADIENT</u>

Eat, ENJOY, and don't forget to clean up! ☺