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Color World Analog Game

Overview of Concept

The concept is to create a two to six player game that will reinforce color theory principles. Topics include, tints, shades, primary, secondary, and tertiary colors as well as the monochromatic, analogous, complementary, and split complementary color schemes. Players will travel across the board and collect colors and resources and answer questions in order to accurately build their color wheel and color scheme. Players will receive rewards for each group of colors and color schemes that they are able to create.

The board part of the game was inspired by 80 Days where players have 80 days to make it around the world. Along the way, resources are collected and lost. In Color World, the players are traveling to the end of the game board and collecting, and possibly losing, color cards and other resources. Players will also have adventures like the ones in 80 Days. In Color World players could possibly get stuck in the black hole rather than the steam pipe like in 80 Days.

The learners will place the colors on the color wheel and in the schemes using the correct relationship between the colors.

Instructional Objectives

- Learners will correctly identify primary and tertiary colors.
(Level III Applying)
- Given two primary colors, learners will correctly match them to the secondary color result.
(Level III Applying)
- Given a set of colors in the color wheel, learners will successfully identify the color scheme.
(Level III Applying)
- Learners will successfully classify tints and shades.
(Level II Understanding)
- Learners will accurately build a color wheel.
(Level III Applying)
- Learners will accurately create an analogous, complementary, or split complementary color scheme.
(Level VI Creating)

What type of knowledge is being conveyed?

- Declarative (facts)-The learners must know the primary and tertiary colors in order to put them in the correct spot on the color wheel.
- Conceptual-Placing the colors in their proper place on the color wheel and grouping the colors in their color schemes.
- Rules-Based (relationships between concepts)-The secondary colors. Understanding that two primary colors make a secondary color and two secondary colors make a tertiary color and knowing how tints and shades are created.

*What are the tasks that must be demonstrated to achieve the outcome
How will you measure learner performance?*

Learner performance will be based on the **correctness** of the questions answered, identification of primary, secondary, and tertiary colors, tints, shades, and color schemes, and **accuracy** of the color placement on the color wheel.

Learner/Player/ Context Description

The game is for two to four players who are just learning about color theory. This game will help the players to experience the concept rather than just learn the rules of creating a color wheel. They will draw random color cards and build their color wheels and color schemes. Since the players need to read instructions to play the game, players should be above the 4th grade reading level.

Game Environment

Guiding questions- What is the environment where the game takes place (e.g. in 80 days, it is the world)? What do players encounter in this environment (e.g. flying pigs? Dragons?)? If there are multiple localities, describe them.

The gameboard is set in Color World where everything relates to color. The game pieces are different colored rainbows. The game board is illustrated and colorful. All of the instructions on the game board relate to color. For example, one of the squares is a black hole where players can get stuck.

What is the Core Dynamic of the game?

In this game, players **collect things** to create the color schemes. There are resources that can be collected for successful board travel, colors collected to complete the wheel and color scheme, and rainbow stripes collected when the player completes a task such as collecting all of the primary colors. Some of the spaces have things such as a black hole which creates a **conflict**. There is also conflict with other players when the player lands on the square that allows them to take some color cards from another player. The

object of this game is to construct (**Constructing Things**) a color wheel. The players also have to match (**Matching**) the two primary colors with the secondary colors

Game Materials, Setup and Logistics

- One game board that contains spots for cards

The game board is the primary playing area.

The spaces on the board fall into four different categories:

- Resources (The player takes a resource card.)
- Questions (The player takes a question card.)
- Colors (The player takes a color card.)
- Special Instructions examples include:
 - Black hole card
 - Take a card from the player on the right.
 - Take three colors from the color pile.
 - You get nothing.
 - Move ahead two spaces.
 - Lose a color to the reject pile. The player selects what color to place on the reject pile.
 - Give a color to the player on your right. The player selects which color to give.

- Cards in five categories

These cards provide the resources to build the color wheel.

- Resource cards (These cards contain:
 - Get out of the black hole card
 - The key card which allows the player to collect all the primary colors
 - Collect two more cards
- Question cards (Players must answer the questions correctly to select a color card. If they do not answer the question correctly, they will not get to draw a color card. Questions include:
 - Name a secondary color.
 - What happens when you add white to a color?
 - What happens when you add black to a color?

There are also samples of color schemes and tints and shades that the player will be asked to identify.)

- Color cards (Contain colors. The secondary colors will be displayed as primary+primary and the player must match it to the secondary color on the color wheel.
- Color scheme cards (These cards contain the name of a color scheme the players must create)

- Reject pile (these are cards that the user does not need (They already have this color to create their color wheel. The player disposes of them and, after all of the regular cards have been used, the players will shuffle the cards in the reject pile, place them on the color card spot, and draw the cards.)
- A spinner marked in 8 sections
The spinner tells the players where to move on the board.
 - Move ahead 1
 - Move back 1
 - Move ahead 2
 - Move back 2
 - Move ahead 3
 - Move back 3
 - Lose a turn
 - Take an extra turn
- Colored markers to mark the players' places
- Player card to build the color wheel (a complete color wheel will be on the game box so that players can reference it if they forget where the colors go. There is no penalty for this.)

The game should take 30 minutes or less to play. It may take longer for those players who are less experienced in color theory.

Description of Character(s)

There are no characters in this game. The players play as themselves and use markers to mark their spots as they move along in Color World.

Description of Gameplay/Plot

1. Set up the game board.
2. Separate the different types of cards (resources, questions, colors, color scheme), shuffle the cards and place them in the respective spots on the board.
3. Players should each have a player card with a color wheel to place their color cards.
4. Each player should select a colored game piece to mark their spot.
5. Take two color cards and one resource card to start the game.
6. Spin the spinner (taking turns, of course) to travel the board to the end.
7. Once you land on a space, follow the instructions.
8. C means to collect a color card (you will identify the secondary colors and match them to the primary color on the player card.)
9. R means to collect a resource card.

10. A question mark represents the question card. When you select a question card, you must correctly answer the question in order to collect another color card.
11. Build the color wheel with the colors you collect.
12. The only way to get out of the black hole is with a “get out of the black hole” card or to spin a move ahead 1. If the rest of the players have finished the game and one player is still stuck in the black hole, the board part of the game is over for the stuck player and they finished last on the board. They are still able to create their color scheme and add up their number of stripes.
13. Once all of the players have reached the end of the board, each player will draw a color scheme card and, using the colors they have collected on the wheel, create as many different combinations of that color scheme as they can without using the same color twice.
14. If the players run out of regular cards, they can shuffle the reject cards and use those.
15. Each set of colors and color scheme earns a different color stripe representing colors of the rainbow. See the scoring rules below.

The game begins at the start of the game board. The players are racing to the finish while collecting colors for their color wheel. Along the way, players have adventures, like getting stuck in a black hole. They must use the color cards to help build a color wheel and, at the end of the game, a color scheme. Using the scoring system below, the players are ranked one through six with one being the winner of the game. The players get practice (and feedback) creating a color wheel, answering color-based questions, and collecting primary, secondary, and tertiary colors, even if they are in sixth place.

Scoring, Rewards, Assessment

As the players create the color wheel, they will collect a color stripe (representing each color of the rainbow) for each milestone achieved.

- Red-Collected all the primary colors
- Orange-collected all the secondary colors
- Yellow-collected all the tertiary colors
- Green-collected all the colors in the wheel
- Blue-created an analogous color scheme
- Indigo-created a complementary color scheme
- Violet-created a split complementary color scheme

The player with the most rainbow color stripes wins. If players have the same amount of rainbow stripes, the player who finished the game first, wins. The players can collect more than one rainbow stripe of the same color if they were able to create multiple color schemes at the end of the game. The players can collect the stripes in the rainbow as

they complete each task. For example, if the player collected all of the primary colors, they can collect a red rainbow stripe. If they are forced to give up a color for any reason, they must give up their stripe as well. Players will have to know the primary, secondary, and tertiary colors to know when they can collect a stripe. They also need to know how to build a color scheme in order to earn additional stripes.

The focus of the game is building a color wheel so the goal was to stay away from complicated scoring systems. Collecting and adding the short-term prizes help to determine the winner in the end and the finishing place is important as well.

Important Game Design Attributes

For a game to be a serious game, we expect that your design will contain attributes that we have discussed in this class. Choose 3 of the elements (all from Kapp chapter 2) below and write a short paragraph for each that describes AND provides examples of how your game implements this design element.

Aesthetics

Since this is a game based on color which is related to design, the aim is for the game to be aesthetically appealing. All of the design elements will have a common theme and look like they belong together. The main way aesthetic appeal can be achieved is through color. The game board and cards should be colorful. Illustrations will best convey the look of the game and the game pieces and rewards will be colorful as well.

Feedback

This game was created to help students correctly assemble a color wheel and the player card has some built-in feedback mechanisms to help with this task. The spots for the colors were labeled with P and T for primary and tertiary so that the players know where to place these types of cards. It's up to them to get the correct order. The students can place any primary color on the top primary color spot as long as all of the colors are in the correct order which shows the correct relationship between colors. If the player is stuck on where the cards go in the wheel, they can look at the reference color wheel on the game box and there will be no penalties. They are also given the secondary color card and it's up to them to match the secondary colors with the colors that create it. The player will also get immediate feedback from the other players when answering the question cards.

Conflict, Competition, or Cooperation

In Color World there is conflict and competition. The players must race to the end while collecting as many resources as possible. Finishing first and having the most resources leads to the most awards and, in some instances, players are allowed to take resources from other players. The game itself provides a conflict with the black hole. This is something that the players must overcome, either when the spinner lands on move ahead 1 or they receive a get out of the black hole free card.