Color Tile Activity Directions

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Exploring Equality

Materials needed

Interactive board slide

Color tiles

2 circles for every 2 students

Loops of yarn

venn diagram hoops

hula hoops

Coffee can lids etc.

2 wiki stix for every 2 students

2 dice for every 2 students

Procedures

In groups of two students roll the dice and place that number of colored tiles inside their circle.

Once each student has the quantity on the dice represented in their circle the two students compare the quantities represented using the wiki stix.

The wiki stix are made to indicate if the two sets are equal or if one set is greater or less than the other.

The students request a visual confirmation from the teacher.

If a student has a greater amount they get to keep one tile.

If both student’s amounts are equal each student gets one tile.

Play continues for a pre-determined amount of time.

The student with the most tiles at the end of the time is the ‘winner.’

Comparing Sets

Materials needed

Interactive board slide

Dice (1-6 per student depending on age of students)

Color tiles

Procedures

Have students roll the dice and put that many tiles in front of them.

Ex. Rolling 2 dice with a 1 and 4 …student could put 14 tiles or 41 tiles out.

Teacher picks a random amount (can roll dice or just make up)

Ex. 10

Teacher pulls a symbol from the interactive slide from the bag.

Ex. The > symbol is pulled.

Students must represent an amount that is 10 MORE/greater than their original amount.

Have student partner checks in place or teacher clipboard to record before repeating process.

Candy Box Race

Materials needed

Interactive board slide

Color Tiles

1 Candy Box Race game boards

Color crayons, markers, or highlighters

1 six sided dice for every 2 students

Procedures

Have students roll the dice once and pull that many tiles out.

Students should line the tiles up in a row in front of them.

The 2nd student rolls the dice and does the same.

The 1st student rolls the dice again and builds a square or rectangle that contains that many rows of the amount rolled first.

The 2nd student repeats this process.

Ex. I rolled a 3 the first time and I have one row of three tiles in front of me.

I rolled a 4 the second time. I must now add three more rows of three so that I have four rows of three in front of me.

Students search the grid to fid a place to mark off the box they just made and record the total amount of squares it covers.

Play continues this way until a box can’t fit inside the area remaining after three rolls.

The winner is the person who has left the fewest number of squares uncovered at the end of the game.

Candy Box Race

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Leftovers

Materials:

6 ‘plates’

21 ‘cookies’

1 6-sided dice

2 Players

Scratch paper and pencils

Objective:

To equally share the cookies in each turn collecting the leftovers until no cookies remain to be shared.

How to win:

Be the person with the most cookies at the end of the game.

Steps/Directions:

* Each player has his or her own recording sheet (scratch paper) and pencil.
* Player 1 rolls the dice and distributes the number of plates that matches the number rolled.
* Player 2 takes the 21 ‘cookies’ and begins to distribute (divide) them equally amongst the plates Player 1 laid out. Player 2 continues to do this until either
  + a. all cookies have been distributed or
  + b. there aren’t enough cookies left to share ‘fairly’ amongst all the plates.
* Player 1 checks the distribution to make sure each plate has the same amount of cookies.
* Player 2 gets to KEEP the leftover cookies. They do NOT go back into play at this time.
* Both players record the division problem that matches the scenario.
* All cookies are gathered (except the leftovers)
* All plates are gathered
* The rolls reverse and this process is repeated over and over until there aren’t enough cookies left to proceed.
* At the end of the game, players count the cookies they earned as leftovers.
* The player with the most cookies is the winner.

Example of a sample round:

A-rolls a 6 on the dice and lays out 6 ‘plates.’

B-takes the 21 ‘cookies’ and begins placing 1 cookie on each plate until they have placed 3 cookies on each plate and have 3 cookies left in their hand.

This is not enough to share with the 6 plates so they are declared ‘leftovers.’

A-checks to make sure there are the same numbers of cookies on each plate. Both players record 21÷ 6 = 3 with 3 leftover.

B-gets to keep the 3 leftover cookies. All plates and cookies are gathered (except the 3 leftovers) and play begins again this time with 21-3 cookies 18 cookies to divide instead of 21.

Pentomino Discovery…

A pentomino is a shape that can be made by connecting 5 one-inch tiles full side to full side

NOT

Arrange five tiles into a shape you believe is a pentomino…cut it out of the squared paper you have. Your goal is to find all 12 pentomino shapes.

When you believe you have 12 DIFFERENT shapes, ask the teacher to give you the plastic set to check your work with.

Try to put the pentominoes back into a perfect rectangular shape once all twelve have been discovered.

Each pentomino could become a 5 sided box. Can you determine which pentominoes can be folded up on the lines to create a box without a top? Can you predict which of the 5 squares would be the bottom?