

Name _____

Candy Puzzle 1

Candy shapes that are the same have the same number value.

The sum of the values in the second column is 17.

The sum of the values in the first row is 16.

Write the number value for each candy on the line in its square.

Write the sum of the second row on the line outside the array.

 _____	_____ 7 _____
 _____	 _____

16

20

17

Name _____

Candy Puzzle 2




Candy shapes that are the same have the same number value.

The sum of the values in the second column is 12.

The sum of the values in the first row is 10.

Write the number value for each candy on the line in its square.

Write the sum of the second row on the line outside the array.

 _____	 _____	 2
 3	 8	 _____

10

7

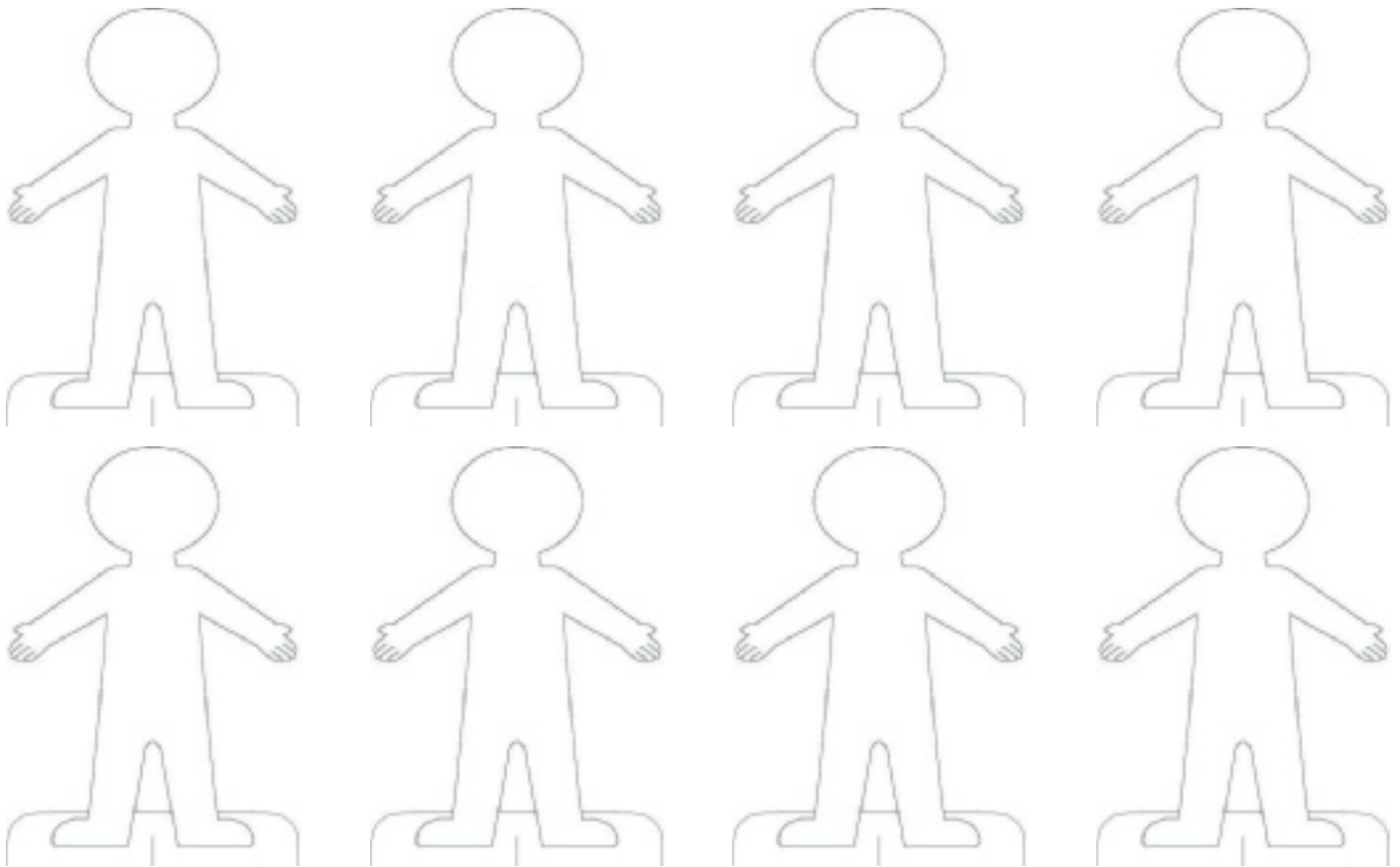
12

7

Name _____

Emerald City Outfits

Draw your outfit designs on this page. At the bottom of the page, record how many different combinations you found.



Total number of outfits _____

Name _____

Walking the Path

Example

Starting space	Spin	Ending space
White 0	-2	Grey 2
Grey 2	+3	Green 1

Game 1

Starting space	Spin	Ending space

Game 3

Starting space	Spin	Ending space

Game 2

Starting space	Spin	Ending space

TABLE 2

Game number	No. of moves to complete game	Emerald City or the Witch's Castle
1		
2		
3		

TABLE 1

Participants may explore the twenty-four Math Wizard in Oz activities in any order among six stations.

Key: Kansas (K), Munchkin Land (ML), Yellow Brick Road (YBR), Emerald City (EC), Haunted Forest (HF), and Witch’s Castle (WC)

Activity name	Station/grade/NCTM Standard			Brief activity description
Auntie Em’s Cookie Count	K	1	Number and Operations	Use the act-it-out strategy to solve cookie, muffin, and hot dog problems involving number relationships and sharing using cooking and food manipulatives.
Save Toto from Miss Gulch	K	5	Measurement	Measure the distance Miss Gulch travels with different sizes of tires. Discover how many dog steps Toto has to take to escape her basket and get back home.
Rainbow Figures	K	4–5	Algebra	Use colored pieces to create a special pattern for a rainbow figure, and then discover its numerical secret.
Pigs and Chickens	K	2	Number and Operations	Auntie Em and Uncle Henry have chickens and pigs but do not know how many of each. Use barnyard manipulatives to help them figure out how many pigs and chickens they have.
Changing Places	ML	Pre-K–K	Geometry	[See complete description in article.]
Map Coloring	ML	K–2	Geometry	How many colors are needed to color a map of the Land of Oz?
Munchkin Land Doors	ML	K–2	Measurement	[See complete description in article.]
Munchkin Helpers	ML	5	Algebra	Find the number of Munchkins in each location using clues and color counters.
Candy Puzzles	YBR	2	Algebra	[See complete description in article.]
Yellow Brick Road Words	YBR	3	Data Analysis and Probability	Tally the number of times given words appear in song passages. Illustrate results with bar graphs. Use the bar graphs to analyze results and answer probing questions.
Lion’s Crown	YBR	Pre-K–1	Algebra	Use shapes to create a repeating pattern for a crown.
Tic Tac Apple Trees	YBR	1-2	Number and Operations	Select two numbers from number boxes, find their sum, and locate the sum in the apple tree to make three sums in a row.
Tin Man’s Ticker	YBR	Pre-K–3	Measurement	Pretend to be a tin man and find out how many times or how long it takes to perform tin man activities. Then use the Tin Man’s special clock to solve Oz word problems involving time.

TABLE 1

Activity name	Station/grade/NCTM Standard			Brief activity description
Emerald City Outfits	EC	2	Data Analysis and Probability	[See complete description in article.]
Scarecrow’s Triangles	EC	4–5	Geometry	How many triangles are on the Emerald City door? Design an Emerald City door using triangles.
Walking the Path	EC	4–5	Number and Operations	[See complete description in article.]
Getting Dorothy Home	EC	2–3	Algebra	The Wizard uses his hot air balloon to help Dorothy home. To win, be the last to remove the rope.
Build an Emerald City	EC	Pre-K–5	Geometry	Create your own Emerald City using various shapes of different sizes and shades of green.
The Secret Stairway	HF	3–5	Number and Operations	Use the clues and find the pattern to unlock the window at the top of the secret stairway to rescue Dorothy from the Wicked Witch.
Hidden Pictures Revealed	HF	3–5	Number and Operations	Reveal a hidden Oz picture by choosing cards and matching the number on the card with its equivalent expression on the game board.
Flying-Monkey Transformations	HF	5	Geometry	Move the monkey playing piece along a game board from the Haunted Forest to the Witch’s Castle according to the transformations indicated on the game cards.
Are the shoes red or silver?	WC	2	Data Analysis and Probability	Take turns drawing silver or ruby shoes (with replacement; repeat ten times) from the Witch’s cauldron and tally results in a table. Predict which shoe color is more likely and check results with the Witch’s prediction.
Flying-Monkey Food	WC	3–5	Measurement	Use the Witch’s brew and measuring cups to see how many monkeys you can feed.
Help Free Dorothy!	WC	4–5	Measurement	Dorothy is trapped in the Witch’s Castle. Help her friends use clues and a ruler to find the correct path to open the magic door to the dungeon.

Number Tiles for Candy Puzzles

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20

Directions for the Changing Places Activity

Part 1

- Find a partner and role-play Munchkin 1 (adult) and Munchkin 2 (child).
- Both Munchkins face the chart.
- Munchkin 1 asks Munchkin 2 the following questions:
 - Who is beside Dorothy [pointing to Dorothy]?
 - Who is above the Lion?
 - Someone is to the right of the Scarecrow. Who is it?
 - Who is below Dorothy?
 - If the Wicked Witch moves to the left, who will she share a space with?
 - Start at the Tin Man. Move up two spaces. Who do you find?
 - Start at Glinda. Move down one space. From there, move one space right. Who do you find?

Part 2

- Switch roles. Munchkin 1 rearranges the Oz friends. Munchkin 1 asks Munchkin 2 questions like those in part 1.

Part 3

- Switch roles. Munchkin 1 removes the Oz friends from the chart. Munchkin 2 selects one Oz friend to place on the chart.
- Starting with Munchkin 1, take turns asking each other to place the rest of the Oz friends on the chart using positional words. For example, “Place Dorothy *beside* the Tin Man.”



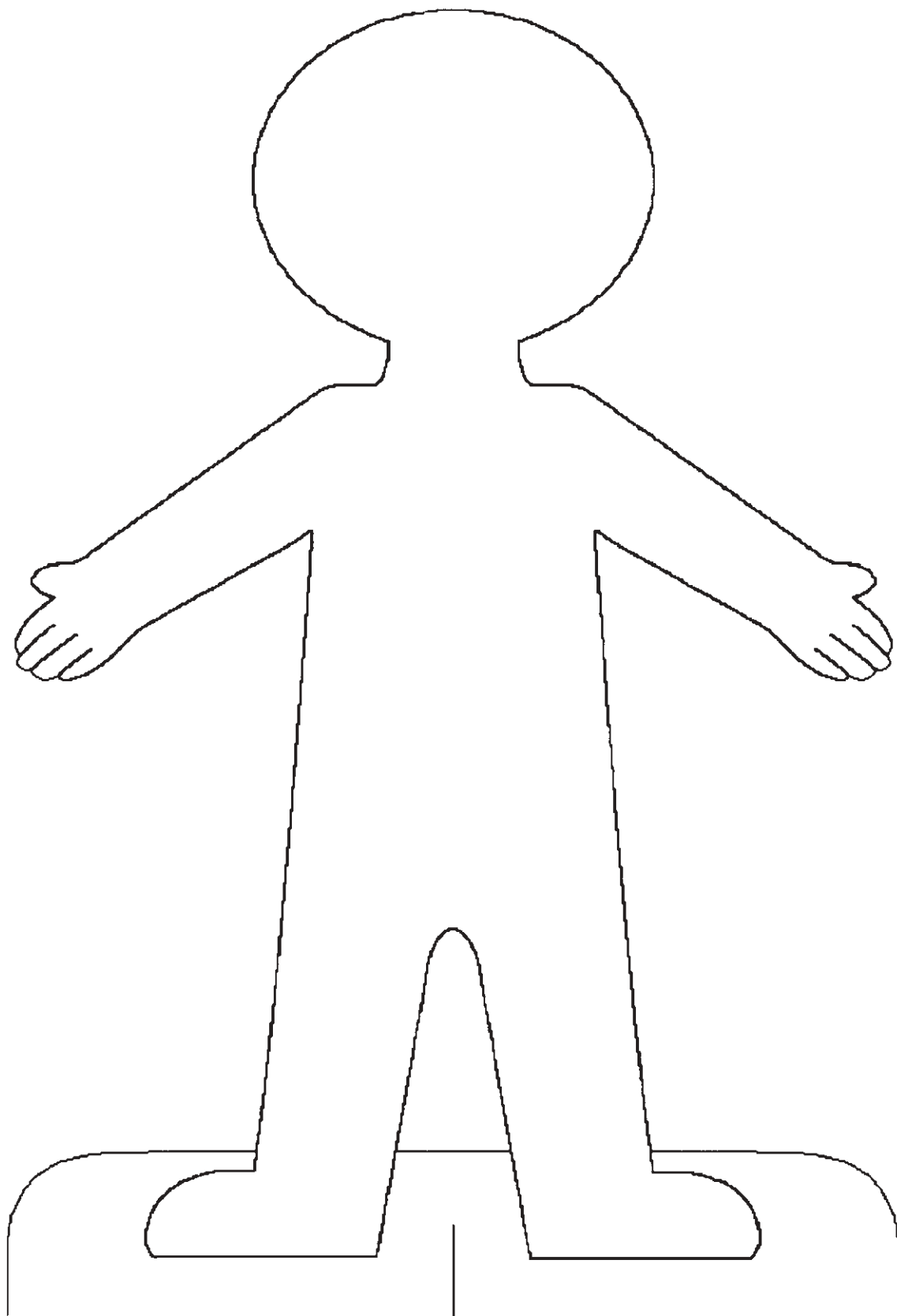








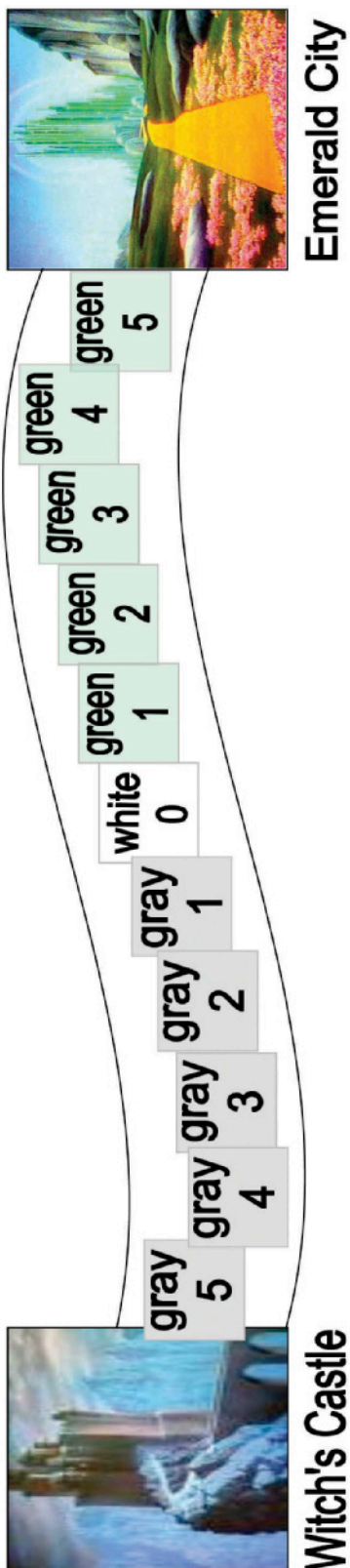






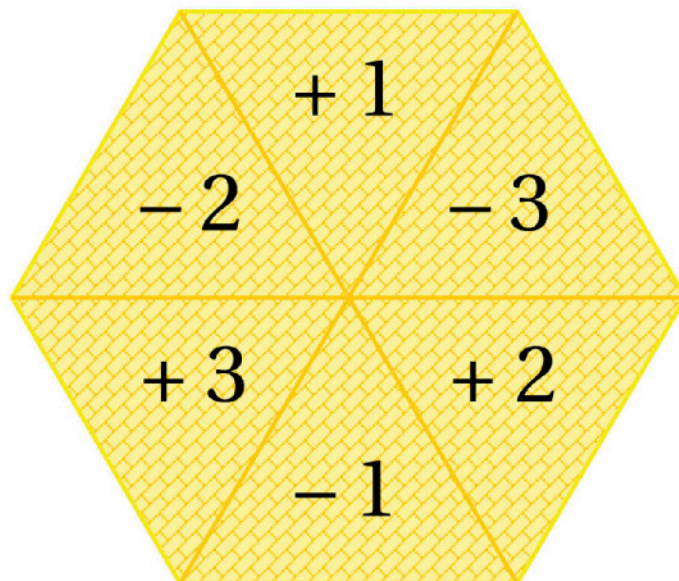


Game Board and Playing Pieces



Spinner

+ 1 + 2 + 3 move toward Emerald City
1 - 2 - 3 move toward Witch's Castle



Playing Pieces

