



# our planet

**Teacher Notes For Save the Earth Make Twenty Puzzle**

Make two copies of this puzzle. Cut out one on the solid lines. Save the other one as an answer key.

Allow students time to try different combinations as they guess and check their answers.

May take time for students to try different strategies for making 20 as well as students used to help them out.

Here are some "clues" you can use:

- The picture of the girl will cover 10.
- Each corner square has only 1.
- The squares in between the girls in the top row and bottom row will have 2.

For students who need more assistance:

- Put the pieces in a random order.
- Turn all of the girls right side up.
- Place all pieces with no numbers in the top row.
- Place all pieces with no numbers in the bottom row.
- Place all pieces with no numbers in the first column.
- Place all pieces with no numbers in the last column.
- Now, arrange each piece with no touching sides equal 20.

The answer is always so much fun!

Leah

**Save the Earth Make Twenty Puzzle**

Materials: Save the Earth Make Twenty cards and your brain!

Place the cards in a four by four square so that touching sides have a sum of 20.

4	2	8	6
4	13	19	5
9	7	2	2
9	10	19	1
5	10	10	5
13	8	9	11
13	5	10	2
7	9	10	4
4	9	7	10

**Recycle It! Doubles**

Materials: 1 die, the board game, a partner, a marker for you and one for your partner.

Place your marker on START. Roll the die. **Quadruple** the number you rolled. Move to the trash can with that number. Continue to take turns rolling, doubling, and moving your markers. The first player to get to the end of the game board and roll a 4 (4 quadrupled is 16) will win!

**Save the Trees**

Materials: Two dice, the game board, 14 markers for you and 14 in a different color for your partner.

Take turns with your partner. Roll two dice. Find the product. Then double it! Place a counter over that number on the board. For example: If you roll a 4 and a 5, multiply it times 2 (40). Then double 20 (40). Cover a 40 on the board. Continue to play until one of the trees is surrounded with counters. The player who places the last counter to surround the tree is the winner!

30	72	4	36	16	60	2	32	18
6	50	24	8	40	10			
48	12	20	72	30	4	36	16	
2	32	18	6	50	24	8	40	
48	12	20	72	30	4			
60	16	36	2	32	8	6	12	

**Earth Day Roll It!**

Materials: a partner, 2 die, and 8 counters in 2 different colors. Roll the die. Find your number on the key. Cover any uncovered number on the board that matches that clue. Is it you, be the first one to cover four in a row!

Key: IF you roll...

- cover an odd number
- cover an even number
- cover a multiple of 3
- cover a multiple of 4
- cover a number > 50
- cover a multiple of 6

29	72	87	17	16
2	11	36	14	27
25	12	18	20	33
1	15	22	65	13

**Earth Day Flower Power**

Materials: 1 die, the board game, a partner, a marker for each of you.

Roll the die. Place your marker on START.

How that number of spaces:

- the number you roll is divisible by the number you rolled, make a division problem and find the quotient. Move ahead that many more spaces. For example: from START, I roll a 3. I move 3 spaces and one and a 3 is 6. I move ahead 6 more spaces.
- you can make a 2-digit problem with the number you rolled and the number you roll on that space.
- with tenths, or go to the Flower Power base.

Logical Reasoning

Fun Fact Practice

**Save the Earth Bump**

REDUCE, REUSE, RECYCLE!

4	19	27	5	21
23				6
8				18
12				7
28				15
39	11	15	33	9

Materials: 2 dice and 10 counters per player. Use a different color for each player.

Directions:

- Roll two dice. Multiply the two numbers together, then add 3 more to that product. Use your counters to cover the larger number. In the answer, your partner's counter off the space and just one of each.
- If you can't cover the space, then you "bump" your partner's counter off the space and just one of each.
- Your counter can no longer bump!
- The first player to use all of their counters wins the game!

**Going Green Bump**

18	11	13	12
9	17	8	15
14	13	12	14
10	16		

Materials: 2 dice and 8 counters each in two different colors- each player uses 8 of a different color.

Play with a partner. Roll 2 dice. Find the sum of the two numbers. Find how many more you need to make 20. Cover that number. For example: If a player rolls 5 and 6, they would cover (5+6+11=) 11+11=20.

If your partner has covered your number, you can "bump" their counter off and put one of your counters on it! If their number is covered by one of your counters, you can bump their counter off and put one of your counters on top and you have won that space.

The first player to use all of their counters is the winner. The player who bumps their partner's counter off to use all 8 of their counters.

**Earth Day Going Buggy**

Be the first to make ones of these bugs total 22 and you win!

3	4	5
9	10	11
7	8	9
13	14	15

**Earth Day Buggy Cards**

3	4	5
9	10	11
7	8	9
13	14	15

**Our Planet**

Materials: 2 Dice, 8 counters in two different colors, the game board.

Play with a partner. Roll 2 dice. Find the product, then multiply again times 2. Cover the number on the board. If you can't cover a number, lose your turn. Now it's your partner's turn. The first one to cover four numbers in a row is the winner!

bloom and grow

30	2	18	32	4	30
50	16	10	48	8	6
48	12	36	20	40	72
12	24	4	6	2	24
6	32	40	18	10	
12	24	50	24	8	

**go green**

Materials: 2 dice, the game board, 10 markers for you and 10 in a different color for your partner.

Play with a partner. Roll 2 dice. Find the product, then add 5 more. Cover the number on the board. If you can't cover a number, lose your turn. Now it's your partner's turn. The first one to cover four numbers in a row is the winner!

15	7	25	9	30	
6	9	20	13	15	23
21	14	13	29	13	10
17	41	35	15	21	11
20	7	23	10	25	29
9	11	25	17	41	7

Strategy

Number Sense

