

# Nature Ninja!

You are a superhero - your name is **Nature Ninja!** You love to be outdoors and are always most powerful when you're playing outside.



## Task 1:

Having good aim is an asset to being a superhero! Find 3 different size containers; bowl, box, pail, bucket, basket, etc. and label them with 1, 2 & 3. Then put them in a line, with the container labelled 1 closest to you, then 2 & 3 furthest from you. Find a ball, rolled up sock, etc. to toss into the containers. Stand back & toss your ball into the containers. Add your scores each toss. The first one to exactly 10/20 (or higher if you choose) wins!

## Task 2:

Ninja's must have good balance! Find some items that you can stack such as Legos, blocks, buttons, flat rocks, coins, etc. Use a deck of cards (up to 5 or 10), dice, or paper with numbers written on them. Flip or roll a number and try to stack that many items. Keep taking turns until one person's tower falls! Who was able to stack the highest? What strategies did you use to build the highest tower?

## Task 3:

Superheroes love to race to practice their speed! You will need to make a number path to either 10 or 20 (or higher if you choose!). It can be on paper or you can make one outside with sidewalk chalk or a stick in the dirt. You will also need a deck of cards with the Kings, Queens and Jacks taken out. Draw a card from the deck. If the number is EVEN move ahead that many spaces. If the number is ODD, move back. The first person to land on 10/20 wins the race!!

[https://www.abcya.com/games/number\\_ninja\\_odd\\_even](https://www.abcya.com/games/number_ninja_odd_even)

# Nature Ninja!

You are a superhero - your name is Nature Ninja!  
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## Task 1: Snack Budget

Nature Ninjas need yummy snacks for playing outside! You have \$30 to buy snacks for the week. Using a grocery store flyer, create a shopping list for your snacks. Remember that some items are taxable, so don't forget to estimate the tax!

## Task 2: Symmetry Search

Look for examples of symmetry in nature. Find five examples, and explain to a parent or sibling how many lines of symmetry are present in each one.

## Task 3: BAM! Multiplication Game

Practice your multiplication facts with this fun game that can be played indoors or outdoors. You'll need a large, soft ball and a parent or sibling to play with. The object of the game is to say a full times table without making an error. Choose a times table to practice, and stand about three metres apart. Player One says the first fact (ex.  $0 \times 3 = 0$ ), and throws the ball to Player Two, who says the next fact ( $3 \times 1 = 3$ ). If the ball is dropped, or if you give an incorrect response, you are at "B." If a player makes three errors, they have spelled BAM, and the game is over. If you and your partner give correct answers for all of the facts in the times table (ex. up to  $12 \times 3$ ), you have mastered that times table, and can practice another one. Have fun!

Press ctrl+click to practice your multiplication skills in this fun game!

[https://www.abcya.com/games/multiplication\\_mine](https://www.abcya.com/games/multiplication_mine)



## Middle School Math Challenge

### Task 1: Equation Exercising

Solve each of the following equations for the variable indicated. Then, work through the exercise routine based on your answers!

$2a = 14$   
 $b - 3 = 12$   
 $13 = 2c - 5$   
 $3d + 2 = 11$   
 $14 = 5e + 4$

Do a push-ups  
 Do b sit-ups  
 Do c jumping jacks  
 Jog for d minutes  
 Repeat e times!

### Task 2: Weighing-In

Determine the mass of each animal to solve the final equation.

+ = 390 kg  
 + = 630 kg  
 + + = 435 kg  
 - + = ?

### Task 3: What's the Probability?

Roll a regular 6-sided die and track your results in a table similar to the one shown below. In theory, you have a 1 in 6 chance, or about a 17% chance of rolling any value from 1 through 6. In practice, experimentally, it usually takes many attempts to reach this statistic. **How many rolls did it take before your results approached the theoretical probability?** (In the example, after 12 tosses of the die, rolling a 2 happened 0% of the time, but rolling a 3 was at 25%.)

How many times you roll the die	How many 1s you roll	How many 2s you roll	How many 3s you roll	How many 4s you roll	How many 5s you roll	How many 6s you roll
6	1	0	1	1	1	2
12	2	0	3	2	2	3
18						
...						
60						