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:

3D Shape Guessing Game – You will need a bag that cannot be seen through. Play with a parent or sibling. Player One places an item in the bag (ex. can of soup, building block, tissue box, etc.) Player Two places their hand inside the bag and feels the item. They have three chances to guess what the item is. Take turns. This is an indoor or outdoor activity.

Task 2:

Nature Ninja Exercising - You will need a six-sided die. Roll the die, and complete the exercise that corresponds with the number you get.

1 - Do one push-up

2 - Do two jumping jacks

3 - Jump in the air three times

4 - Do four sit-ups

5 - Do five squats

6 - Make six large arm circles

This activity can be done indoors or outdoors.

Task 3:

Jump Rope Skip Counting – Grab your jump rope, and get your heart rate up while practicing skip counting! Choose a number to skip count by (2s, 5s, 10s) How far can you count before having to stop? Keep challenging yourself to count higher!

Use ctrl+click to go on a hunt for 3D shapes!

https://pbskids.org/peg/games/magical-shape-hunt

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Task 1:

A local grocery store wants to donate baskets of apples to schools and daycares and have asked you for help to fill them. In each basket they want you to put 20 apples: $\frac{1}{2}$ of the apples are red, $\frac{1}{4}$ of the apples are green, and $\frac{1}{4}$ are yellow. How many of each colour of apples do you need to put in the baskets? Draw it out if it helps!

Task 2:

You want to help your community by building a fenced in dog park. If you receive 100m of fencing, what could be the dimensions of your park be if you use it all? Although your park could be rectangular, it doesn't have to be. Be creative in your design! Draw your design and be sure to label the measurements of each side of your park!

Task 3:

Superheroes must eat well to stay healthy and strong. You purchase the following 24 vegetable plants for your garden:

4 tomato   5 string bean
6 cucumber   6 green pepper
3 pea

Arrange your plants in a rectangle shape garden, making sure that there are the same number of plants in each row so that you have an array. How many different ways can you find to arrange your plants? Write a multiplication sentence to show your results.
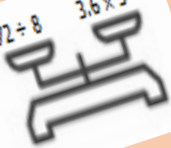
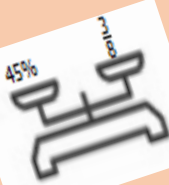https://www.abcya.com/games/fraction_fling

Middle School Math Challenge

Task 1: Balance Equations

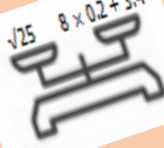Imagine you have scales. Which of these equations would balance? Which would be imbalanced?

$$72 \div 8 \qquad 3.6 \times 3$$

$$45\%$$

$$\sqrt{25} \qquad 8 \times 0.2 + 3.4$$

If the scales don't balance, explain how you could change the equations to make them equal.

Can you make your own balanced scale equations using square roots, mixed fractions, decimals or percentages?

Task 2: Angles

Estimating angles at home only needs a round bowl, paper, scissors, and a pencil.

1. Draw around the bowl.
2. Cut out the circle.
3. Fold it in half. Cut across the fold.
4. Fold in half. What's the angle?
5. Fold in half again. Open the paper. You should have three visible folds. Each one is 45°.

You've made your own protractor and now you can estimate angles around the house! For more on angles, check out this great website!
https://nb.mathgames.com/geometry

Task 3: Practical Math: Take Math Outside

Did you know that you can measure the height of a tree using just a pencil and a friend with a measuring tape?

1. The person with the pencil holds it up vertically and walks away from the tree until the pencil tip is at the bottom and the eraser is as high as the top of the tree.

2. Next, turn the pencil horizontally so that the eraser looks like it's touching the trunk.

3. The friend, who is standing at the bottom of the tree should move sideways away from the tree until they line up with the tip of the pencil. This will be the starting point for measuring. If they measure from the start to the person holding the pencil, the length will be equivalent to the height of the tree!

No climbing required!

https://fromabcstoacts.com/outdoor-stem-measure-tree-height/