



THE COMMISSIONER'S  
**2021 SUMMER**  
**MATH**  
**CHALLENGE**

# Connecticut's Summer Math Passport Family Learning Playground



### Students Leaving Grade K/Entering Grade 1

Playgrounds are full of flat and solid shapes. Head to your local playground and see how many you can find. Draw them here and try to label what part of the playground you found each shape. (Look for flat shapes like: triangles, squares, rectangles and circles. Look for solid shapes like: cubes, cones, cylinders and spheres)

### Students Leaving Grade 1/Entering Grade 2

Bring a timer with you to a local playground. Have someone time you running, hopping or skipping from one side of a field or court to another two times. Find the difference between the fastest and the slowest times. Write your equation.

### Students Leaving Grade 2/Entering Grade 3

Look around any local playground. How many slides do you see? How many monkey bars do you see? How many stairs do you see? How many ladders do you see? Make a bar graph below to show the data you have collected.

### Students Leaving Grade 3/Entering Grade 4

Look around any local playground. Notice where you can see arrays. Use what you know about arrays and multiplication to figure out how many are in each array. Tell about the arrays you found below and how you used what you know to figure out how many.

### Students Leaving Grade 4/Entering Grade 5

Bring a tape measure with you to your local playground, or you can use your own foot to estimate. Measure or estimate the perimeter of the playground. Now find the area. Record your measurements below. If you are able to visit a different playground, find the difference between the two playgrounds' areas and perimeters. Record your findings.

### Students Leaving Grade 5/Entering Grade 6

Playground mulch should be at least 1 foot thick to prevent injuries if children should fall from the playscape. Head to your local playground and measure or estimate the length and width of the playscape. If you were to fill this area with 1 foot of mulch, how much mulch would you need in cubic feet?

### Students Leaving Grade 6/Entering Grade 7

One cubic foot of sand weighs about 70 pounds. Go to the sandbox. Find the dimensions of the sandbox. How many pounds of sand can the sandbox hold when it is full?

### Students Leaving Grade 7/Entering Grade 8

Bring a measuring tape to the playground. Find 3 different triangles and classify each triangle used in the playground. Draw a model of the triangles below.