

Post-primary Programmed Drawing in Scratch and Algorithms to Calculate Area, Perimeter and Circumference

Compatible with SCRATCH 3 2019

Inquiry Based Learning using SCRATCH coding and Copybook Assignments on Squared-paper

Area

For SCRATCH 3
Scratch 3 works on tablets but there are difficulties using a keyboard that covers 50% of the screen.

Area

shared: scratch.mit.edu/projects/184118951
Draw on the grid with the arrow keys

shared: scratch.mit.edu/projects/238050562
Programme the path on the grid (Scratch3)

Learn to use Boolean logic to toggle visibility on and off (show /hide instructions) and create transparency

Area of a Rectangle

Perimeter of a Rectangle

Algorithms and Variables for Area and Perimeter

shared: scratch.mit.edu/projects/42156328

```
set area to length * height
say join join The Area covers area squares
```

```
set perimeter to length + height * 2
say join join The Perimeter is perimeter squares long
```

Learn to use variables in slider mode within a range (min to max) and how to concatenate data types

Area of a Circle

Circumference of a Circle

shared: scratch.mit.edu/projects/42156398

Learn how to label reported data with text

```
join Area is join round 3.142 * radius * radius squares
```

Algorithms for Area and Circumference

Learn to use Scratch operators and how to round decimals in algorithms

```
join join Its Circumference is about round radius * 2 * 3.142 units long.
```