

2. Random Circles

Student learning outcomes

- Students will use JavaScript to draw the contents of an SVG.
- Students will use random numbers to generate random colors and locations to draw the objects.
- Students will use a form to regulate the size, number, and opacity of the shapes to draw.

Real world applications:

- Students will explore how to draw pleasing combinations of sizes and shapes.
- Students will explore how different user interfaces can make a page more artistic.

Assignment requirements:

- This page displays an SVG image that initially has no contents.
- The page will have a script that draws shapes into the SVG image in random sizes, shapes, and colors in random combinations.
- The page will use random numbers to determine the actions.
- The page will have a form with sliders that let the user change the opacity, size, and number of shapes in the drawing.
- The page uses these new HTML elements and concepts:
 - Sliders
 - Slider feedback
- The page uses these JavaScript concepts:
 - Arrays
 - Functions
 - For loops

