

IN-CLASS STUDENT ACTIVITY 2.2: CHOOSE AND CONFIGURE HTML5 TAGS TO DISPLAY GRAPHICS

Lesson Objective 2.2:

Choose and configure HTML5 tags to display graphics.

Resources, software, and additional files needed for this lesson:

1. Microsoft® Expression® Web 4 (preferred) with latest service packs applied, or Notepad.
2. Internet access (Internet Explorer® 9 or later is preferred).

Guiding questions:

1. What criteria determine whether the developer uses the <canvas> tag or the <SVG> tag?
2. Why is it recommended to use transformations when drawing on the canvas?
3. What code can developers include to test for browser support of the new HTML5 <canvas> tag?

Student activity:

Directions to the student:

Read the following scenario. Work in pairs to program a game using SVG and canvas. Answer the questions below. When you are finished programming and testing, verify your answers with the instructor. Share your answers with the class.

Scenario:

Mu Han works as a web developer for WingTip Toys. He previously worked extensively with HTML4 and is now preparing the company websites for the upgrade to HTML5. His supervisor wants to add some mini-games on the website during the transition.

Mu knows that the HTML5 canvas element can help to make dynamic animations that work well for games on the web. Mu has decided to create the games at home and have his twin sons test them before he introduces them on the WingTip Toys website.

Mu Han discovered this Microsoft site for programming simple games using canvas or SVG:

[http://msdn.microsoft.com/en-us/library/gg589521\(v=VS.85\).aspx](http://msdn.microsoft.com/en-us/library/gg589521(v=VS.85).aspx)

Content:

1. Copy and paste the URL into a browser; read the entire section before starting your game.
2. Work with a partner. One partner will program the game using SVG. The other partner will use the canvas. Compare your experiences with both techniques.
 - a. Which game was easier to develop and why?
 - b. Do both games provide the same results and performance?
 - c. Discuss ways to change the game or add challenges. Share your answers with the class.