Getting started with ActionScript

Activity Overview

ActionScript is the scripting language of Adobe Flash Professional. You can use ActionScript to add complex interactivity, object movement, playback control, and data display to a project. ActionScript can be used to produce common movements and interactions that are the building blocks of many Flash games. Use this activity to teach your students how to understand ActionScript, how to use Script Assist and code snippets, how to use Event handling, and how to use ActionScript to create movement and interaction in games.

Note: Portions of this activity align to the Adobe Certified Associate objectives. Within the instruction steps and technical guides, the specific learning objectives for the exam(s) are referenced with the following format: [1.1]

Activity Objectives

Technical Skills

Flash

• Using basic ActionScript
• Writing ActionScript
• Using Code Snippets
• Identifying function, event handlers, and listeners

Project Assets

• *Flash guide:* How to get started with ActionScript [4.11]
• *Flash guide:* ActionScript for basic gaming [4.11]

Background preparation resources

Technical and content information

ISTE NETS*S Standards for Students

Adobe Certified Associate objectives

Activity Steps

1. Explain that ActionScript is the scripting language of Adobe Flash and it can be used to add complex interactivity, object movement, playback control, and data display to a project.

2. Distribute the technical guides, and using the "I do, we do, you do" method, introduce students to the basic concepts of using ActionScript. Explain how to use the Code Snippets panel to quickly apply ActionScript code to control Timeline navigation, actions, animation, audio/video playback, event handling, and loading and unloading assets. Following are some key terms you might want to define as you step students through this process:

   - class
   - object
   - property
   - variable
   - method
   - function
   - event
   - code snippet

   Flash guide: How to get started with ActionScript [4.11]

2. Building on the basic concepts of ActionScript, discuss and demonstrate some basic game features students can create by using ActionScript. As you go through the game features, have students identify how functions, event handlers, and listeners are used in the following examples:

   - How to give a button an action such as stop or play again
   - How to drag and drop items
   - How to add point scoring
   - How to add character movement
   - How to move objects across the screen
   - How to create a timer

   Flash Guide: ActionScript for basic gaming [4.11]

3. Using an animation provided by you, or a project they are currently working on, ask students to add ActionScript, using code snippets, to make the animation do one of the following:

   - Make the animation stop or play again
   - Drag and drop the animation
   - Move the animation with keyboard arrows

Assessment

	0 – Does not meet expectations	3 – Meets expectations	5 – Exceeds expectations
Animations with ActionScript	Absent or incomplete.	Student applies one code snippet to an animation that makes the animation stop or play again, a user can drag and drop the animation, or a user can move the animation with keyboard arrows.	Students applies two or more code snippets to an animation so it stops or plays again, a use is able to drag and drop the animation, and/or a user can move the animation with keyboard arrows.

Background preparation resources:

- To view video tutorials aligned with the skills required to complete this project, visit Adobe TV: http://tv.adobe.com.
- For more teaching and learning resources on the topics in this project, search for resources from the community on the Adobe Education Exchange: http://edex.adobe.com/
- For an overview of the interface and for more information on the technical aspects of *Adobe Flash Professional*, see *Flash* Help.

ISTE NETS*S Standards for Students

This project is aligned to the ISTE NETS*S Technology Standards. Depending on the subject and content area the student selects you may research your own state content standards to see how this project aligns to your state requirements.

ISTE NETS*S: Curriculum and Content Area Standards – NETS for Students

1. Creativity and Innovation

   Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

   a. apply existing knowledge to generate new ideas, products, or processes.

6. Technology Operations and Concepts

   Students demonstrate a sound understanding of technology concepts, systems and operations. Students:

   a. understand and use technology systems.

   b. select and use applications effectively and productively.

   c. troubleshoot systems and applications.

   d. transfer current knowledge to learning of new technologies.

Adobe Certified Associate, Interactive Media objectives

4.11 Add simple controls through ActionScript 3.0.

For more information

Find more teaching materials for using Adobe software in your classroom on the Adobe Education Exchange: http://edex.adobe.com/.

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