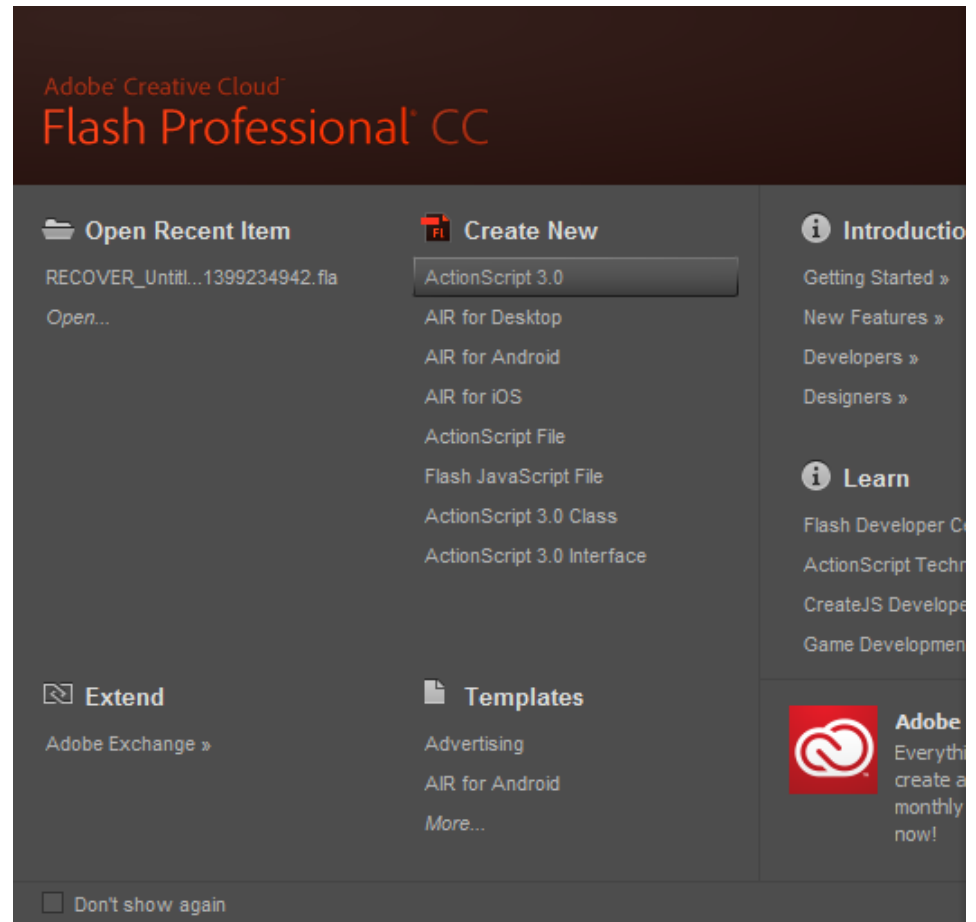


# Creating a Game 3

October 9, 2013

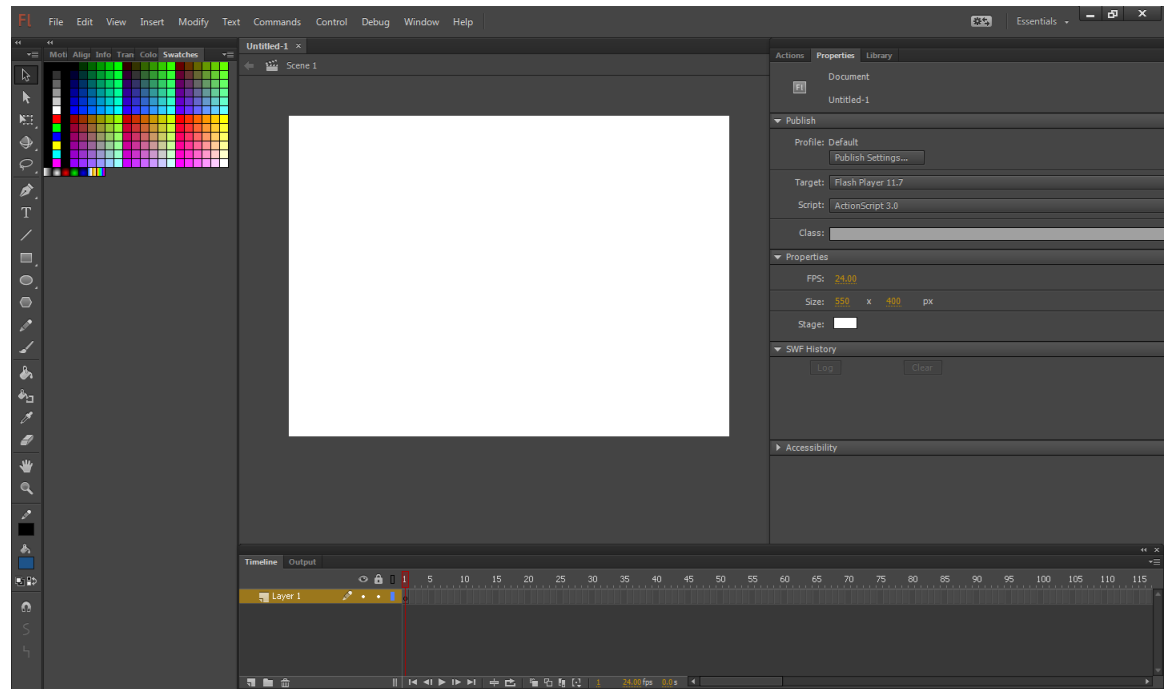
# Open the Flash Program

Open the Adobe Flash Professional program and then we want to choose ActionScript 3.0 under the Create New section of the start menu.



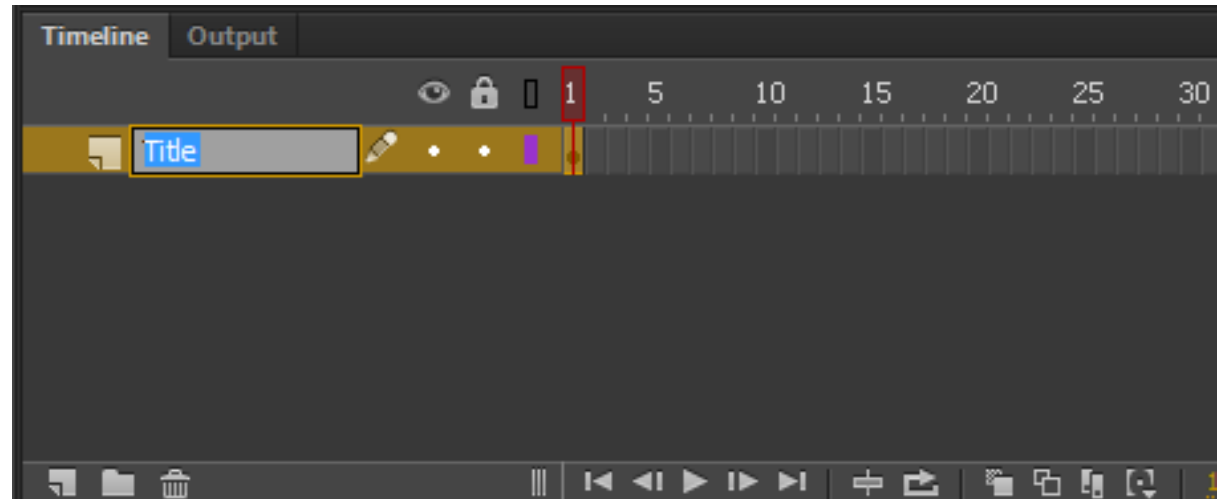
# The Flash Program

We can see the white Flash stage in the center pane. On the left, the Tools toolbar is seen along with the Swatches window. On the right of the center stage, we have the Actions, Properties and Library window. Under the stage, we see the Timeline.



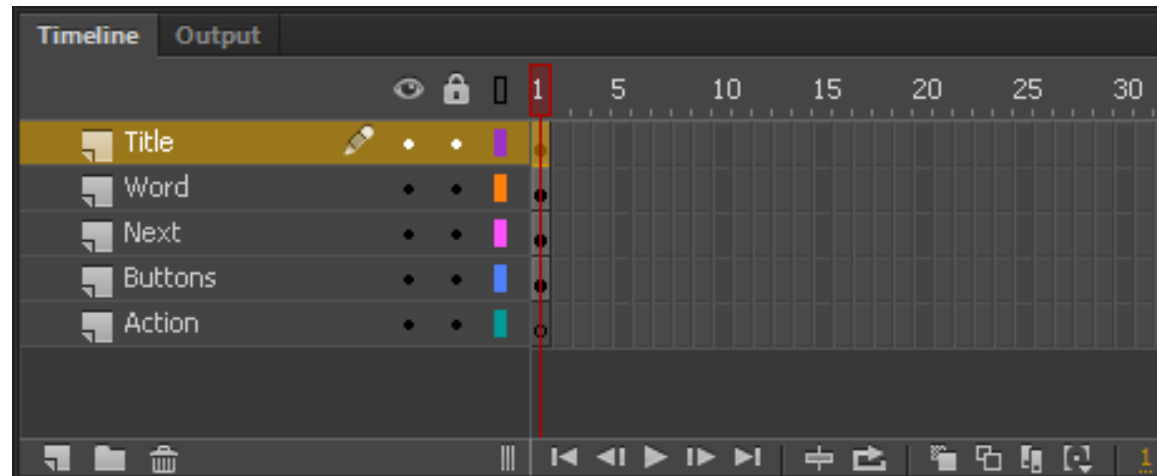
# Renaming a Layer

We will rename the layer called Layer1 to Title.



# Creating a New Layer

Select the New Layer icon and when it appears in the list, we will rename it to Word. Repeat the process for the Next, Buttons and Action layers.

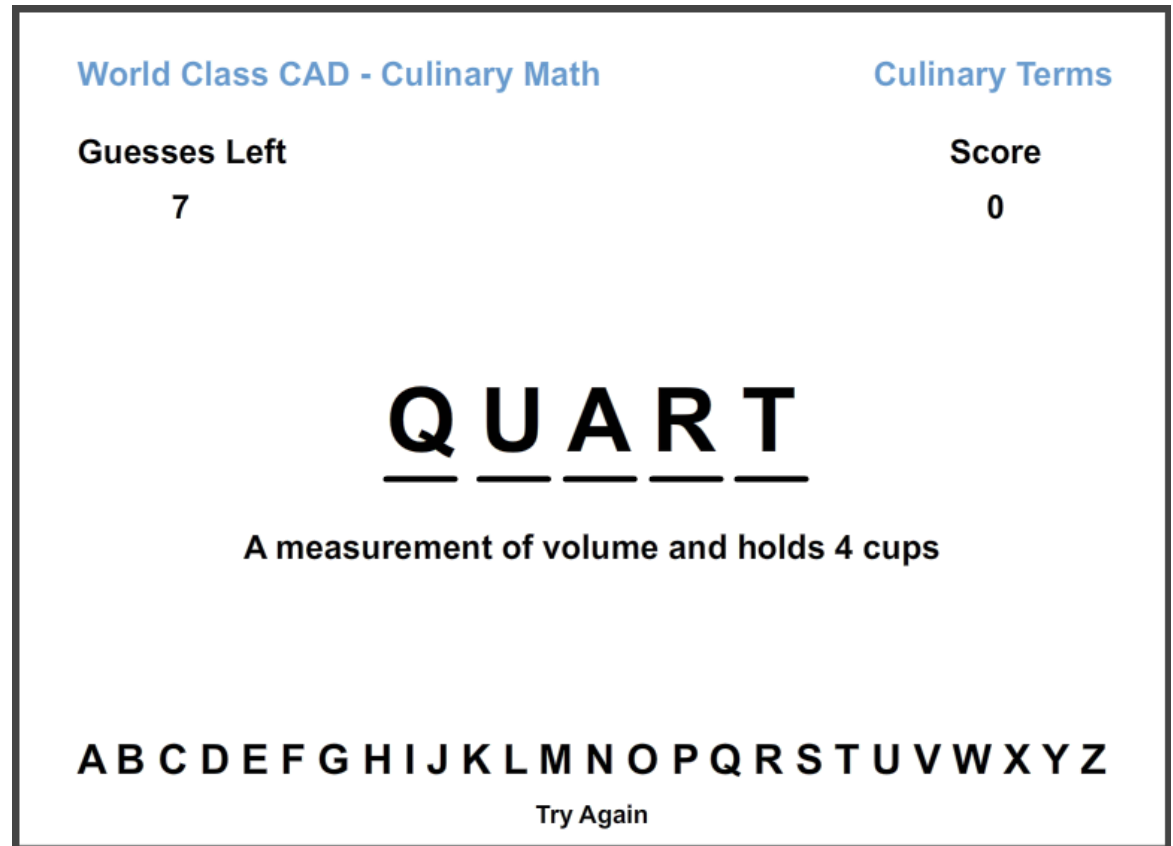


# Adding Text and Lines to the Stage

We will then add text for the game name on the Title layer as shown to the right.

We will place a 3 pixel high line under each letter of the word.

After you type QUART and A through Z, we select the word or string of letters and press Ctrl – B to break them into separate letters.



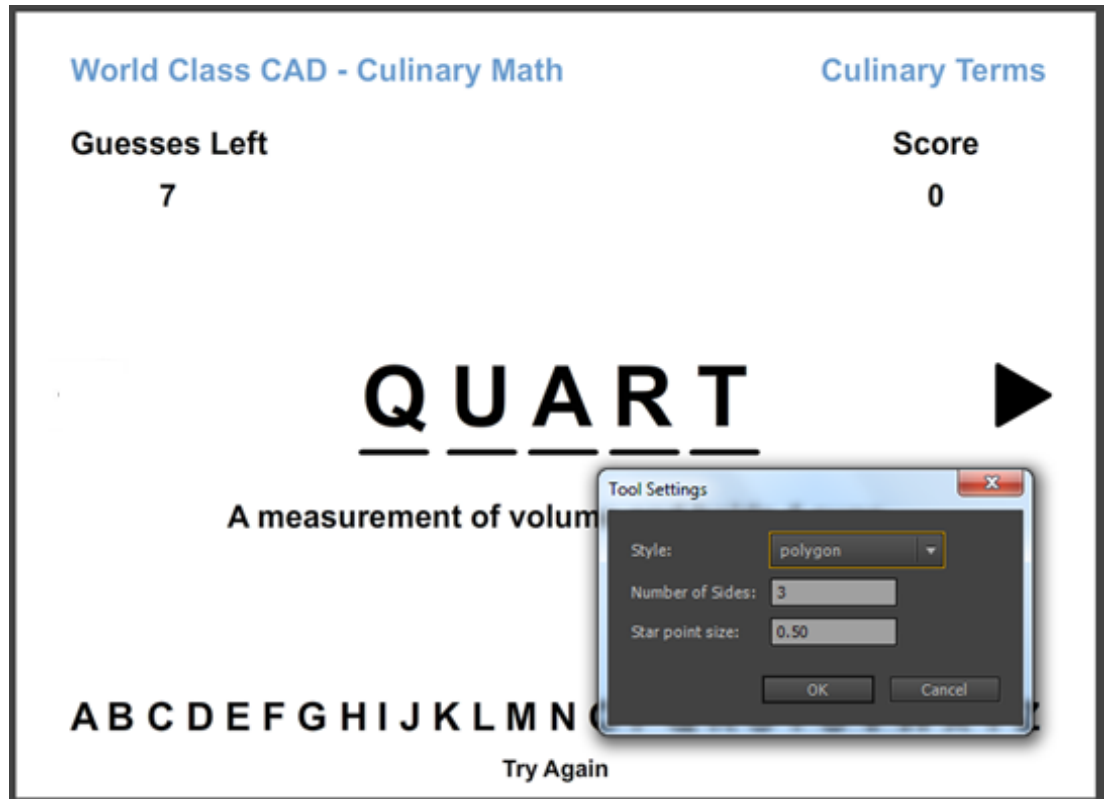
The screenshot shows a game interface with the following elements:

- World Class CAD - Culinary Math** (Game Title)
- Culinary Terms** (Category)
- Guesses Left**: 7
- Score**: 0
- The word **QUART** is displayed with a 3-pixel high line under each letter.
- A description: **A measurement of volume and holds 4 cups**
- A keyboard layout showing the letters **A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**.
- A **Try Again** button.

# Adding Previous and Next Button

Highlight the Next layer and click on frame 1. We select the Polystar tool and on the Properties tab, we select the Options button.

We set the number of sides to 3 and we create a shape for the Next button.



# Convert the Image to a Button

We then right click on the blue circle and we choose the Convert to Symbol from the menu.

The Convert to Symbol window will appear. We will name the symbol A and make the type Button.

On the Properties tab, we will name the Instance A.

The screenshot shows an animation software interface with a scene titled "CulinaryWords.fla". The scene contains a slide titled "World Class CAD - Culinary Math" with a "Culinary Terms" section. The slide has a "Score 0" and a "PART" title. Below the title, there is a list of letters "M N O P Q R S T U V W X Y Z" and a "Try Again" button. A context menu is open over the "Try Again" button, listing various actions such as "Create Motion Tween", "Cut", "Copy", "Paste in Center", "Free Transform", "Break Apart", "Convert to Symbol...", and "Export PNG Sequence...". The "Convert to Symbol" dialog box is open, showing the name "A" in the "Name" field, "Button" in the "Type" dropdown, and "Library root" in the "Folder" field. The "Properties" panel is also visible, showing the instance name "A" and the type "Button".

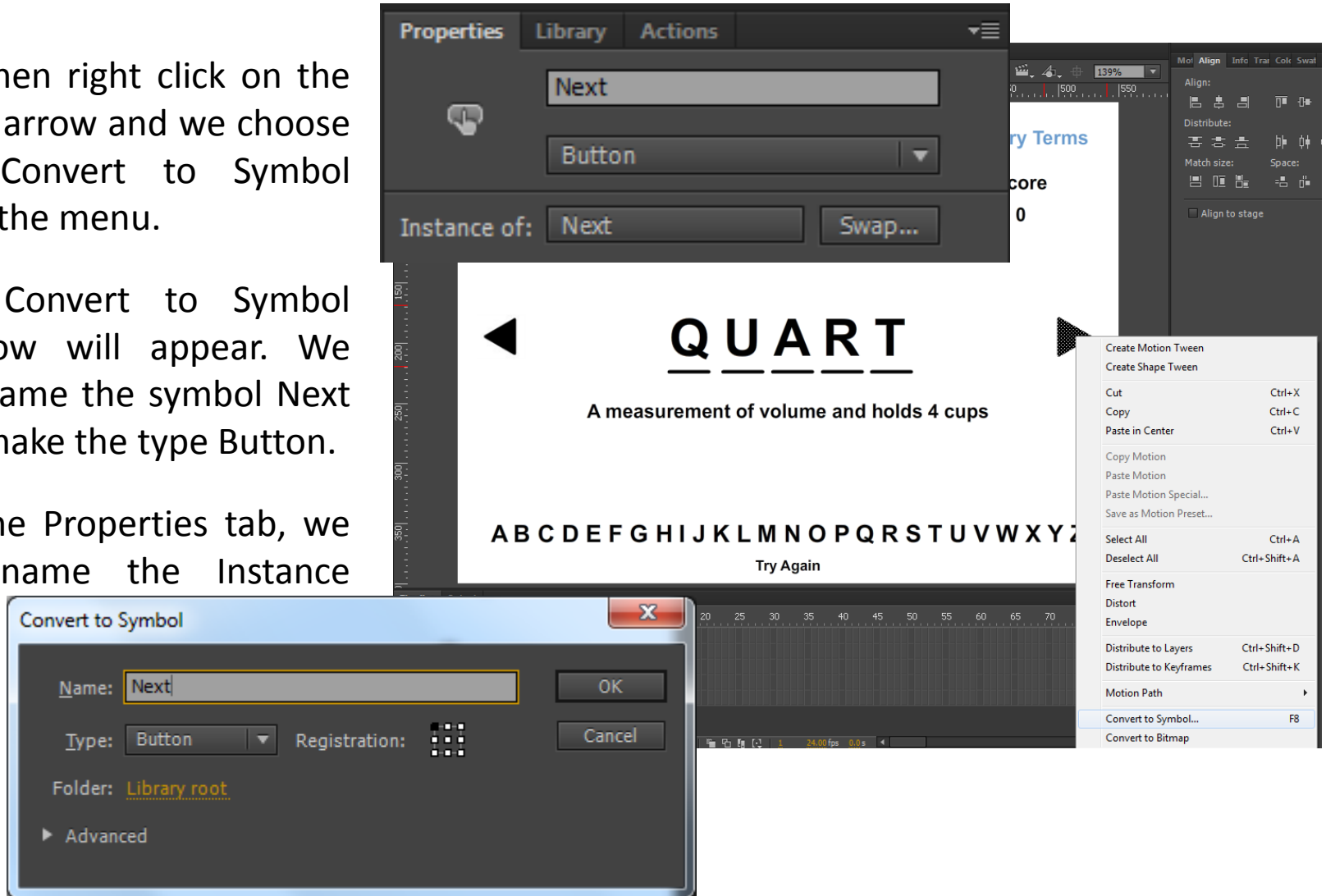


# Convert the Image to a Button

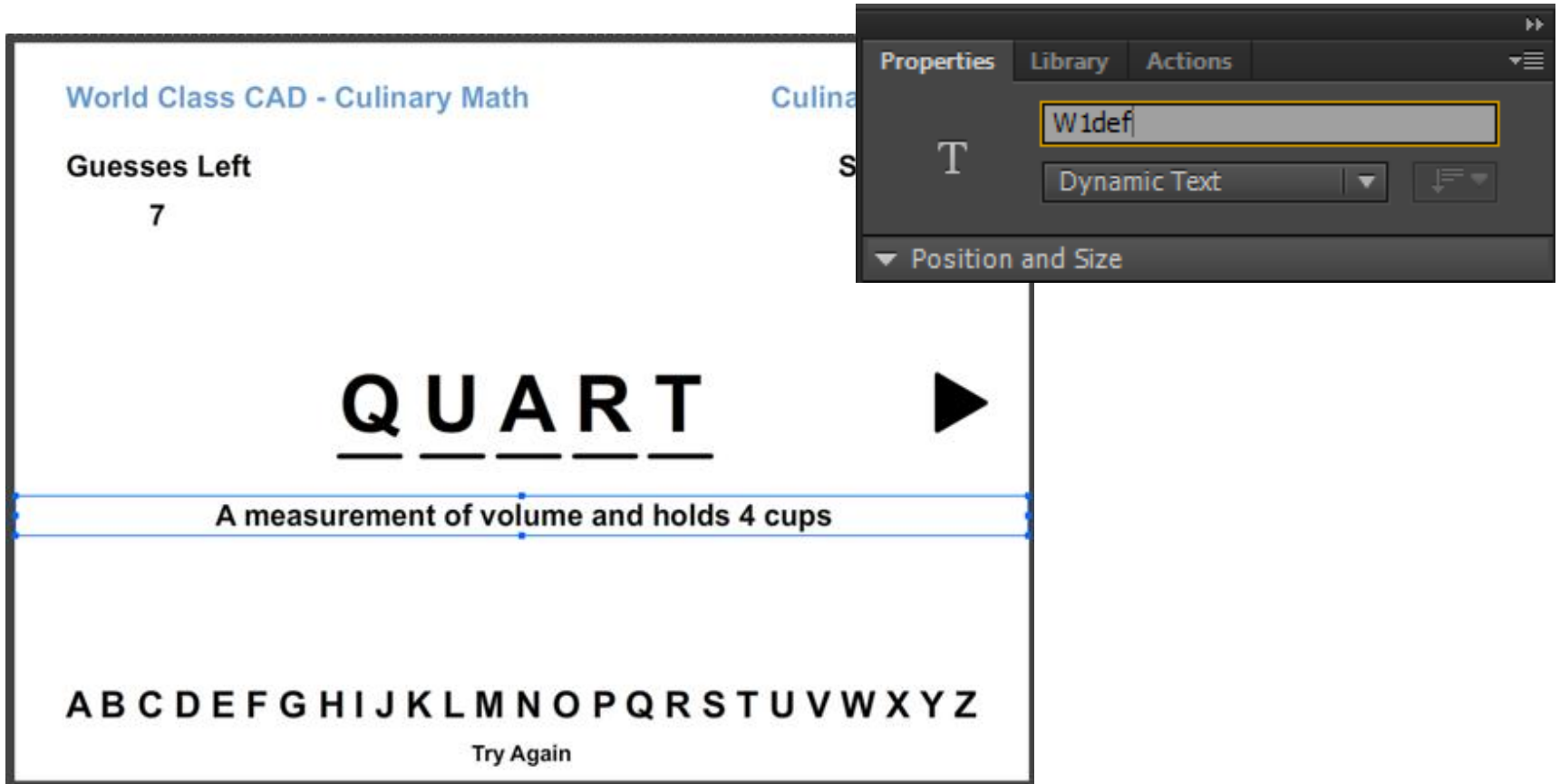
We then right click on the black arrow and we choose the Convert to Symbol from the menu.

The Convert to Symbol window will appear. We will name the symbol Next and make the type Button.

On the Properties tab, we will name the Instance Next.

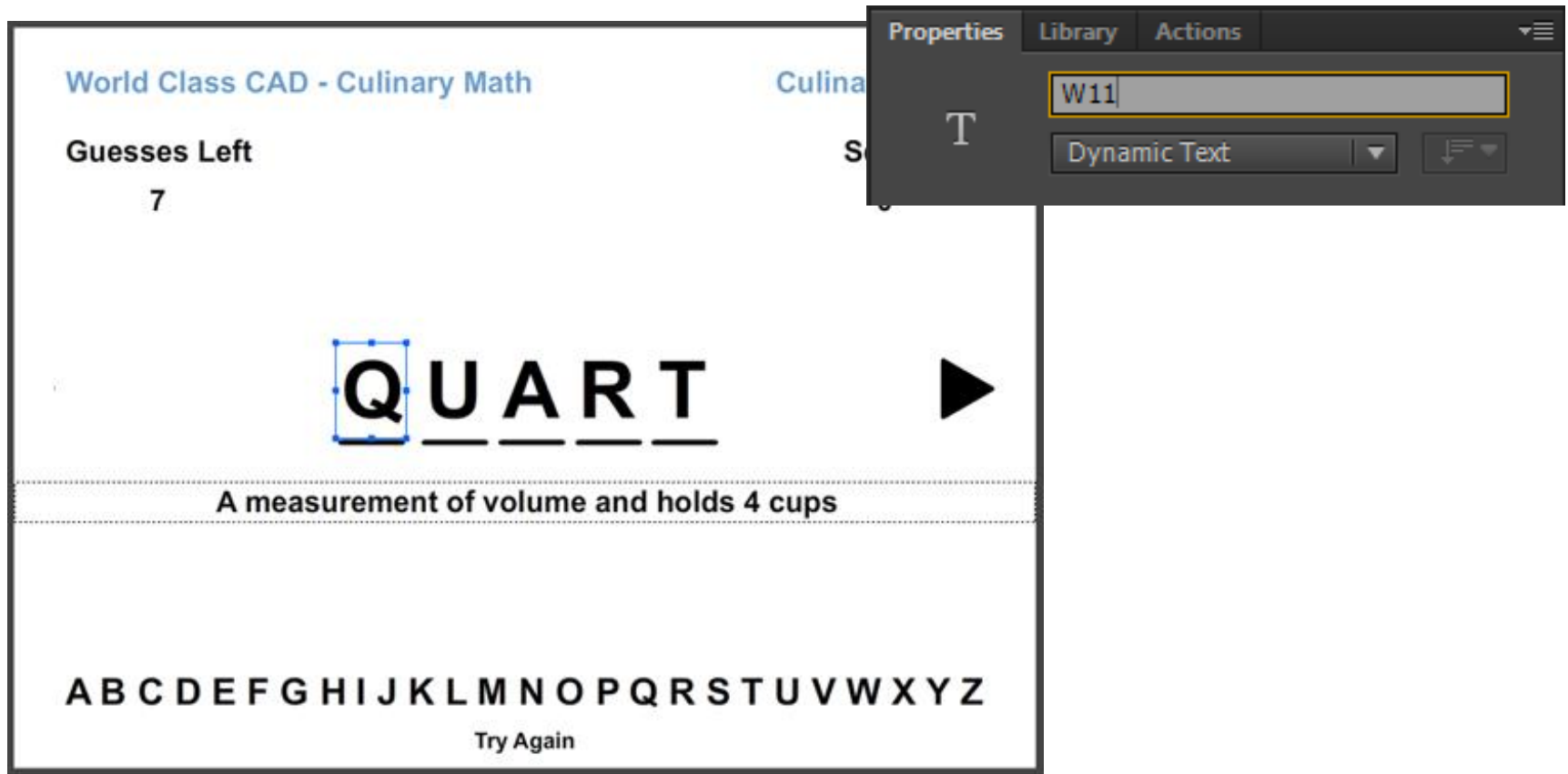


# Create a Dynamic Text



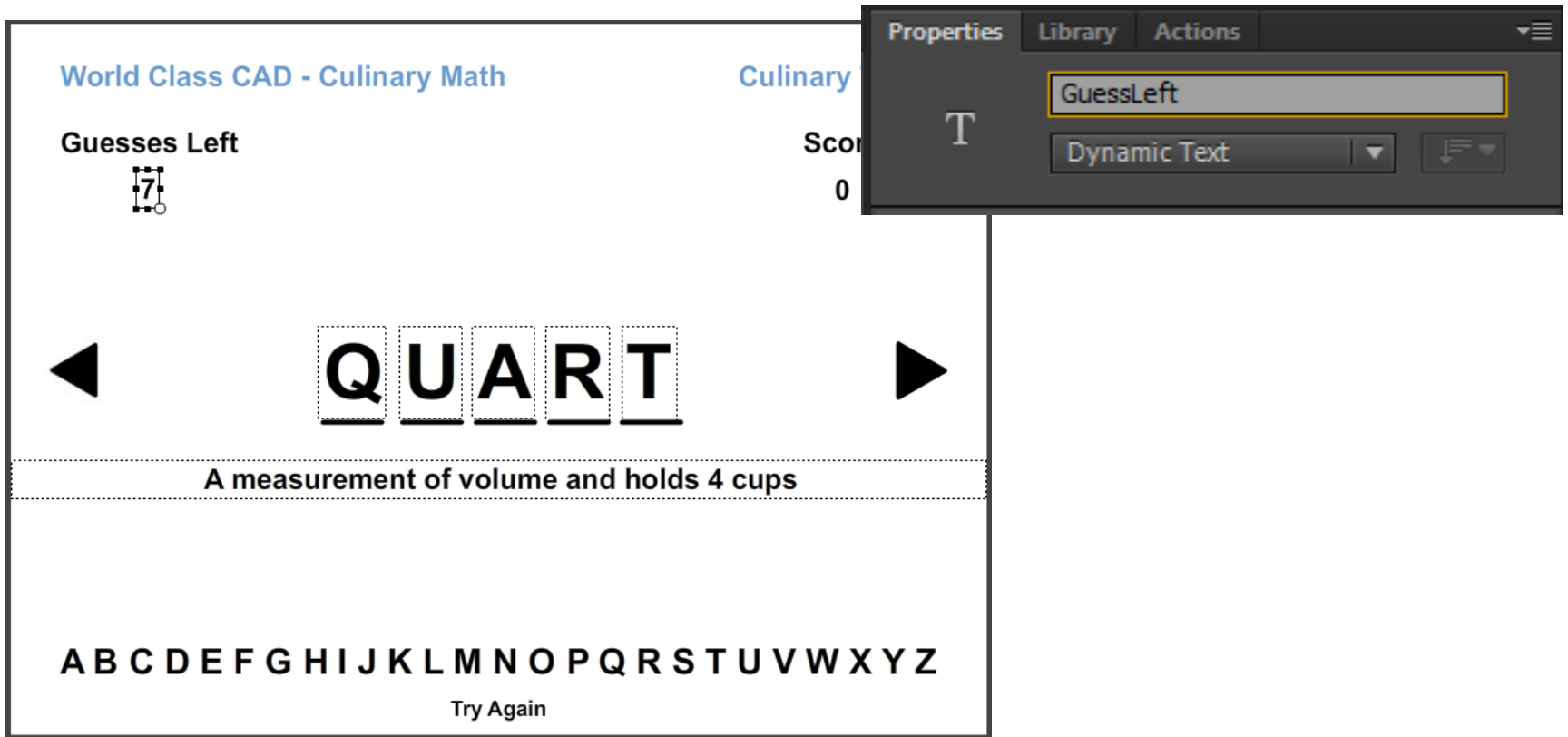
On the Word layer, we will select the definition. On the Properties tab, we will change the text type to Dynamic Text and the Instance name to W1def.

# Create a Dynamic Text



On the Word layer, we will select on the first letter of the word. On the Properties tab, we will change the text type to Dynamic Text and the Instance name to W11. The next letter would be W12, then W13, W14 and W15.

# Create a Dynamic Text

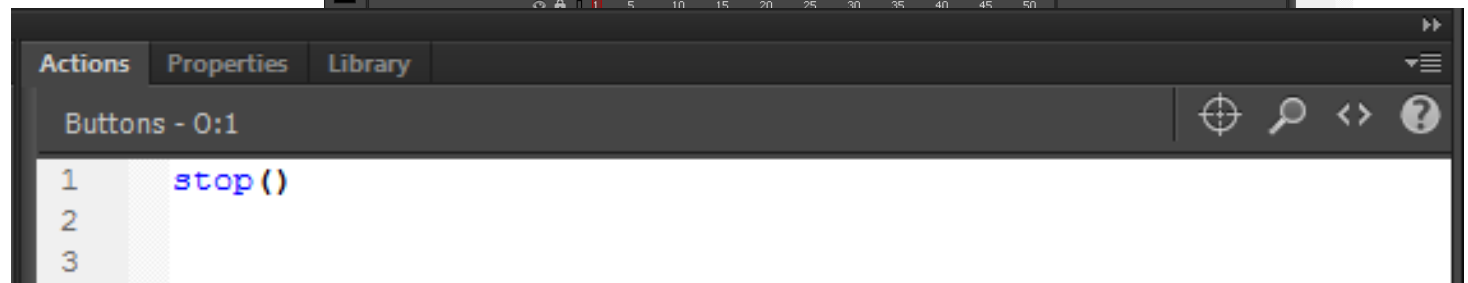


On the Word layer, we will select on the number 7. On the Properties tab, we will change the text type to Dynamic Text and the Instance name to GuessLeft. We will change the Score number 0 to dynamic text and name it Score. We will change the Try Again to dynamic text and name it TryAgain.

# ActionScripts

We choose frame 1 of the Action layer. Then we select the Action tab and we type `stop()` on line 1 of the script.

This will stop the flash movie at the frame.

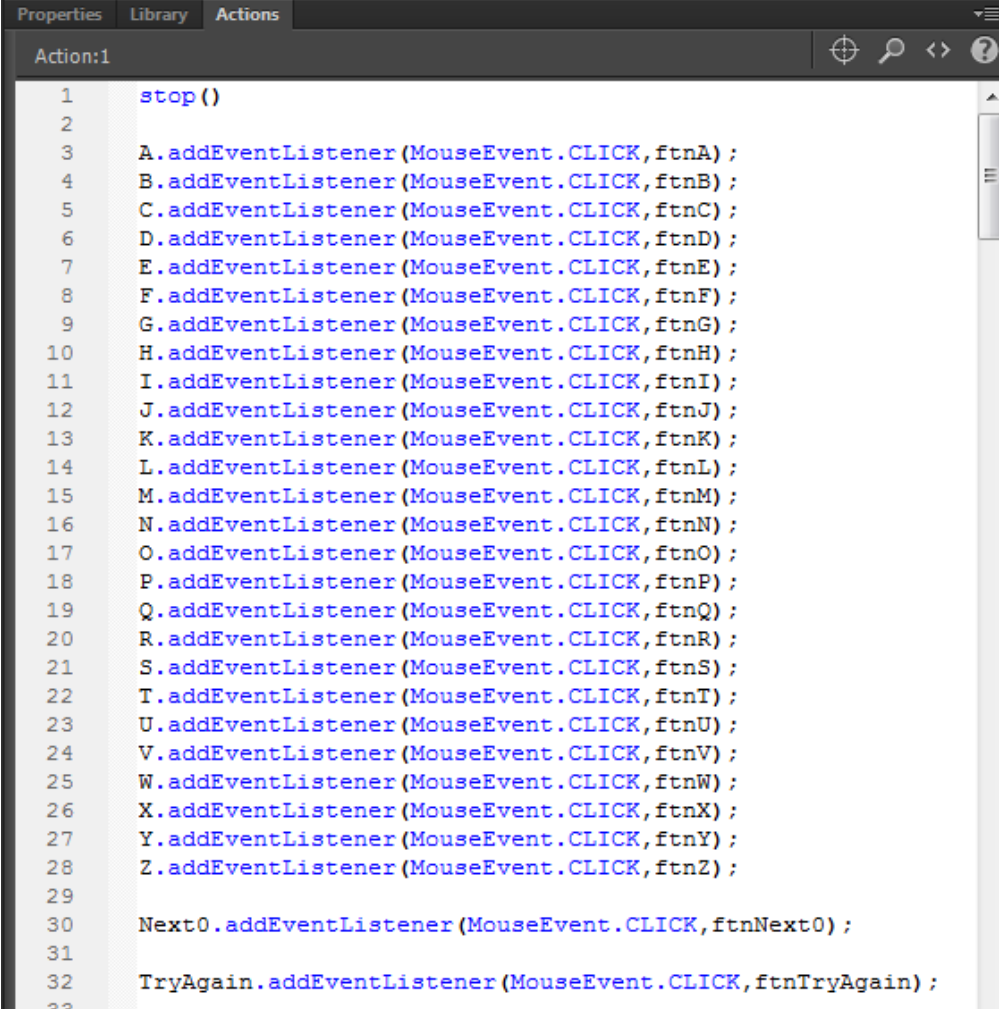


# Add another Event Listener

We then add an event listener to determine when a letter is selected or the Next or Try Again button was clicked on. We type:

```
A.addEventListener(MouseEvent.CLICK,ftnA);
```

We have 26 letters to listen for and the Next and TryAgain buttons.



```
Properties Library Actions
Action:1
1 stop ()
2
3 A.addEventListener(MouseEvent.CLICK,ftnA);
4 B.addEventListener(MouseEvent.CLICK,ftnB);
5 C.addEventListener(MouseEvent.CLICK,ftnC);
6 D.addEventListener(MouseEvent.CLICK,ftnD);
7 E.addEventListener(MouseEvent.CLICK,ftnE);
8 F.addEventListener(MouseEvent.CLICK,ftnF);
9 G.addEventListener(MouseEvent.CLICK,ftnG);
10 H.addEventListener(MouseEvent.CLICK,ftnH);
11 I.addEventListener(MouseEvent.CLICK,ftnI);
12 J.addEventListener(MouseEvent.CLICK,ftnJ);
13 K.addEventListener(MouseEvent.CLICK,ftnK);
14 L.addEventListener(MouseEvent.CLICK,ftnL);
15 M.addEventListener(MouseEvent.CLICK,ftnM);
16 N.addEventListener(MouseEvent.CLICK,ftnN);
17 O.addEventListener(MouseEvent.CLICK,ftnO);
18 P.addEventListener(MouseEvent.CLICK,ftnP);
19 Q.addEventListener(MouseEvent.CLICK,ftnQ);
20 R.addEventListener(MouseEvent.CLICK,ftnR);
21 S.addEventListener(MouseEvent.CLICK,ftnS);
22 T.addEventListener(MouseEvent.CLICK,ftnT);
23 U.addEventListener(MouseEvent.CLICK,ftnU);
24 V.addEventListener(MouseEvent.CLICK,ftnV);
25 W.addEventListener(MouseEvent.CLICK,ftnW);
26 X.addEventListener(MouseEvent.CLICK,ftnX);
27 Y.addEventListener(MouseEvent.CLICK,ftnY);
28 Z.addEventListener(MouseEvent.CLICK,ftnZ);
29
30 Next0.addEventListener(MouseEvent.CLICK,ftnNext0);
31
32 TryAgain.addEventListener(MouseEvent.CLICK,ftnTryAgain);
33
```

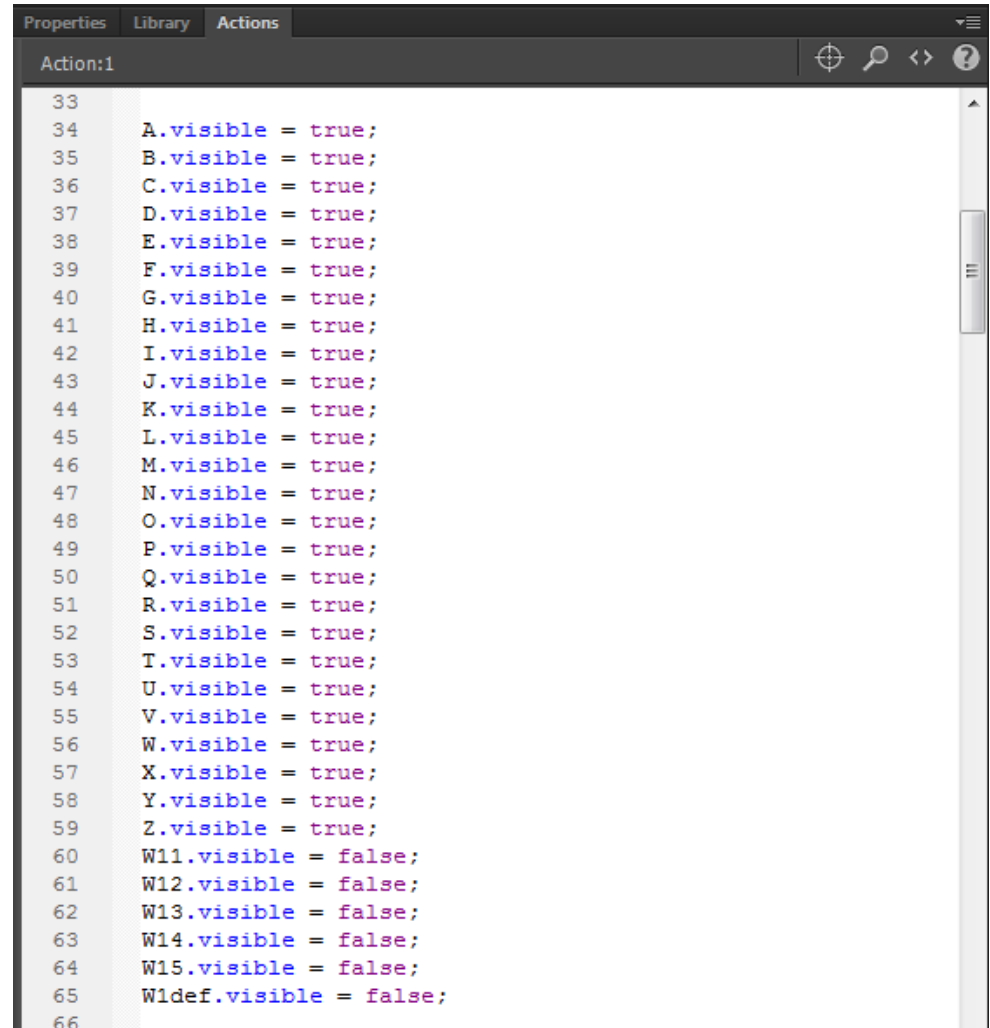
# Make the Matching Lines Invisible

We then type

A.visible = true; and the same for the other 25 letters to make them visible.

We then make W11 through W15 and W1def invisible.

W1def.visible = false;

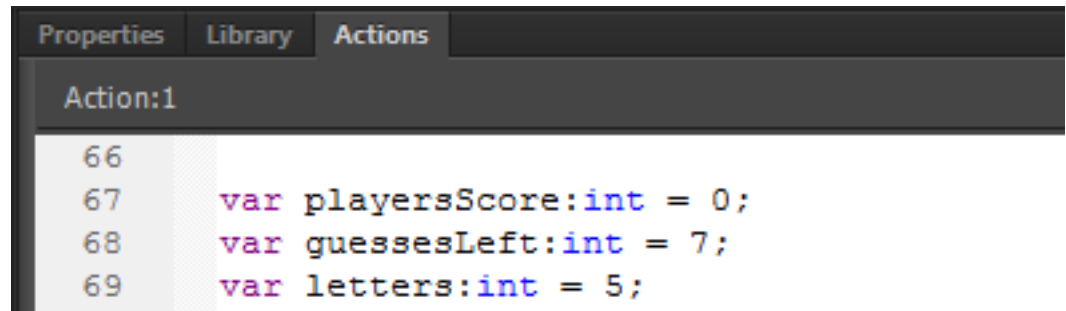


The screenshot shows a code editor window with a dark theme. The title bar includes 'Properties', 'Library', and 'Actions'. Below the title bar, there are icons for zooming, searching, and help. The main area displays a list of lines, numbered 33 to 66. Lines 34 through 59 are indented and contain the text 'A.visible = true;', 'B.visible = true;', 'C.visible = true;', 'D.visible = true;', 'E.visible = true;', 'F.visible = true;', 'G.visible = true;', 'H.visible = true;', 'I.visible = true;', 'J.visible = true;', 'K.visible = true;', 'L.visible = true;', 'M.visible = true;', 'N.visible = true;', 'O.visible = true;', 'P.visible = true;', 'Q.visible = true;', 'R.visible = true;', 'S.visible = true;', 'T.visible = true;', 'U.visible = true;', 'V.visible = true;', 'W.visible = true;', 'X.visible = true;', 'Y.visible = true;', and 'Z.visible = true;'. Lines 60 through 65 are indented and contain the text 'W11.visible = false;', 'W12.visible = false;', 'W13.visible = false;', 'W14.visible = false;', 'W15.visible = false;', and 'W1def.visible = false;'. Line 66 is empty. The editor has a vertical scrollbar on the right side.

```
33
34     A.visible = true;
35     B.visible = true;
36     C.visible = true;
37     D.visible = true;
38     E.visible = true;
39     F.visible = true;
40     G.visible = true;
41     H.visible = true;
42     I.visible = true;
43     J.visible = true;
44     K.visible = true;
45     L.visible = true;
46     M.visible = true;
47     N.visible = true;
48     O.visible = true;
49     P.visible = true;
50     Q.visible = true;
51     R.visible = true;
52     S.visible = true;
53     T.visible = true;
54     U.visible = true;
55     V.visible = true;
56     W.visible = true;
57     X.visible = true;
58     Y.visible = true;
59     Z.visible = true;
60     W11.visible = false;
61     W12.visible = false;
62     W13.visible = false;
63     W14.visible = false;
64     W15.visible = false;
65     W1def.visible = false;
66
```

# Declaring Variables

We need three variables, one for the player's score, one for the guesses left and the last for the number of letters in the word or phrase.



```
Properties Library Actions  
Action:1  
66  
67     var playersScore:int = 0;  
68     var guessesLeft:int = 7;  
69     var letters:int = 5;
```

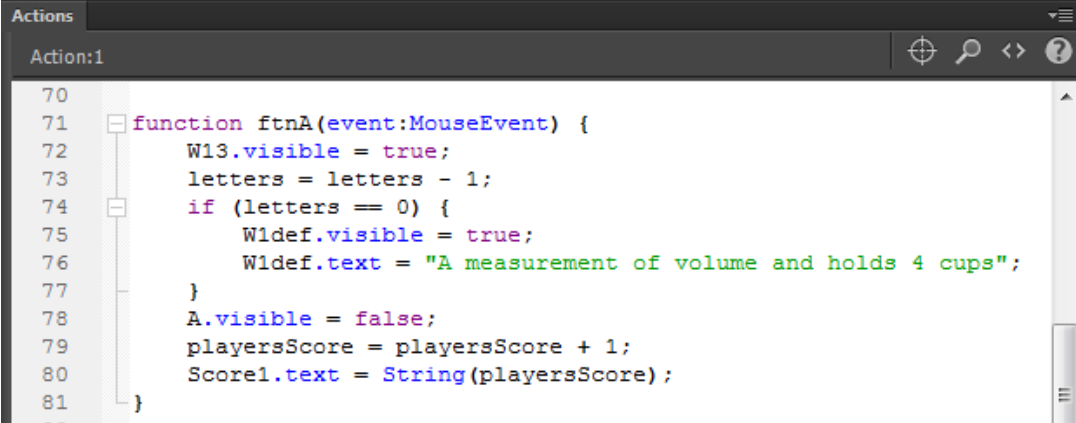
Var allows us to declare a variable. Then comes the variable name. After the colon is the type of variable, which in this case is an integer. If we want to assign a value to the variable, we use the equal sign in the same statement.



# The Correct Selection Function

We add the logic inside the function for correct letter selection. When correct letter is selected we change the letter's visibility to true. We subtract one from the letter count variable.

Then we determine if the letter count equals 0, if the select1 equals 0 then we display the definition. Next, we turn off the letter selected, we add one to the player's score and we display the score.

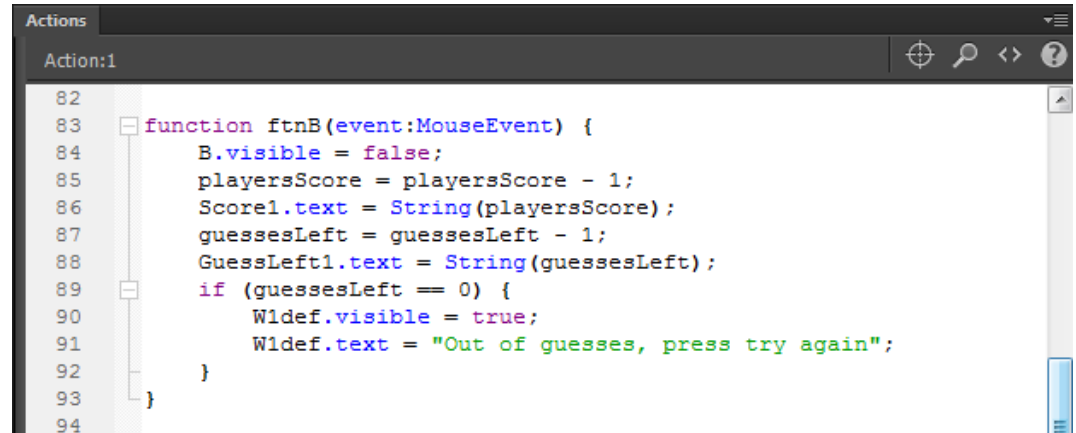


```
70
71 function ftnA(event:MouseEvent) {
72     W13.visible = true;
73     letters = letters - 1;
74     if (letters == 0) {
75         W1def.visible = true;
76         W1def.text = "A measurement of volume and holds 4 cups";
77     }
78     A.visible = false;
79     playersScore = playersScore + 1;
80     Score1.text = String(playersScore);
81 }
82
```

We do this same pattern for every correct letter.

# The Incorrect Selection Function

We add the logic inside the function for incorrect letter selection. When incorrect letter is selected we change the letter's visibility to false. We subtract one from the player's score and we display the score. We subtract one from the guess left variable and display the number. Then we determine if there are any guesses left and ask them to try the game again.



```
82
83 function ftnB(event:MouseEvent) {
84     B.visible = false;
85     playersScore = playersScore - 1;
86     Score1.text = String(playersScore);
87     guessesLeft = guessesLeft - 1;
88     GuessLeft1.text = String(guessesLeft);
89     if (guessesLeft == 0) {
90         W1def.visible = true;
91         W1def.text = "Out of guesses, press try again";
92     }
93 }
94
```

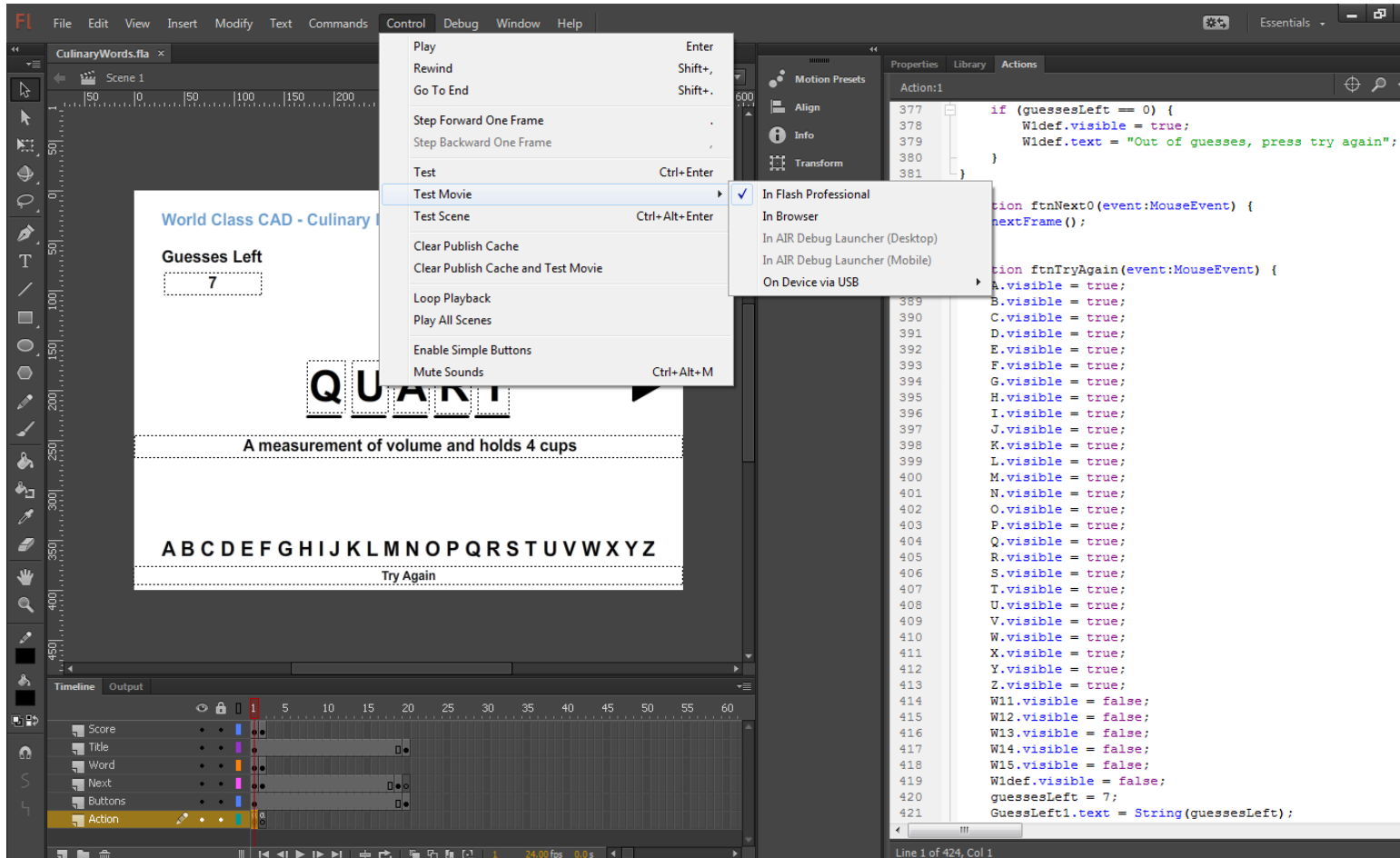
We do this same pattern for every correct letter.

# Next and TryAgain Functions

Finally, we code the next button 's function and we create a series of statements under the Try Again function to reset the game frame.

```
383 function ftnNext0(event:MouseEvent) {
384     nextFrame();
385 }
386
387 function ftnTryAgain(event:MouseEvent) {
388     A.visible = true;
389     B.visible = true;
390     C.visible = true;
391     D.visible = true;
392     E.visible = true;
393     F.visible = true;
394     G.visible = true;
395     H.visible = true;
396     I.visible = true;
397     J.visible = true;
398     K.visible = true;
399     L.visible = true;
400     M.visible = true;
401     N.visible = true;
402     O.visible = true;
403     P.visible = true;
404     Q.visible = true;
405     R.visible = true;
406     S.visible = true;
407     T.visible = true;
408     U.visible = true;
409     V.visible = true;
410     W.visible = true;
411     X.visible = true;
412     Y.visible = true;
413     Z.visible = true;
414     W11.visible = false;
415     W12.visible = false;
416     W13.visible = false;
417     W14.visible = false;
418     W15.visible = false;
419     W1def.visible = false;
420     guessesLeft = 7;
421     GuessLeft1.text = String(guessesLeft);
422     letters = 5;
423 }
424
```

# Test the Movie

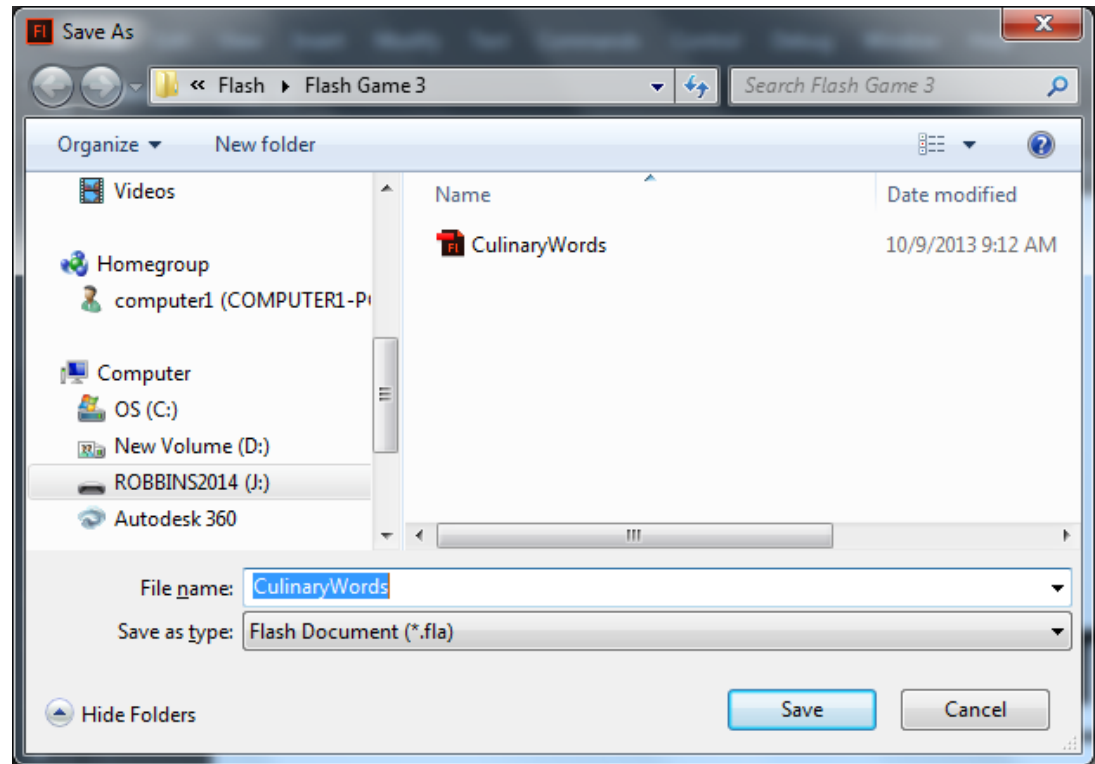


We should select Control on the menu and then Test Menu and In Flash Professional.

# Saving the Movie

We need to save our work, so we choose File on the top menu bar and then we press Save on the drop down menu.

We will call our animation “CulinaryWords” and we will depress the Save button.



# Publish the Flash Slide Show

We then choose File on the menu and Publish.

