

Javascript programming for the Web

Javascript is a programming language which you can add to web pages to make them interactive.

Using Dreamweaver

We are going to use Dreamweaver to create web pages because it allows you to see and edit both the code behind a web page and how it will look in a browser.

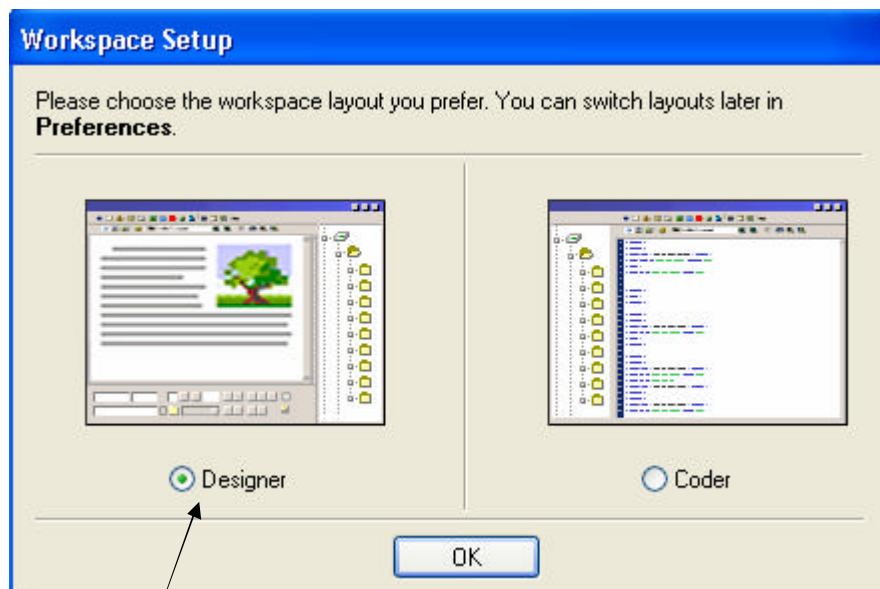
You are going to create a folder for your website. It is important to keep all the files you need for your website in the one place. Make a new folder in your **My Documents** and call it **S2website**



Starting up Dreamweaver:

Double click on the Icon to start the program:

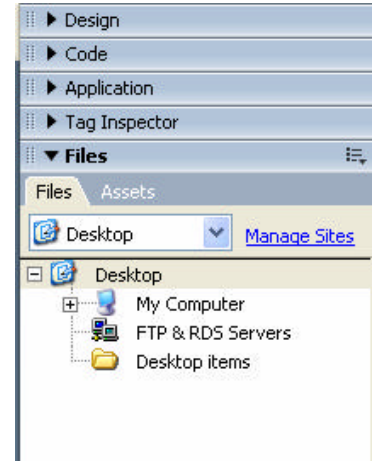
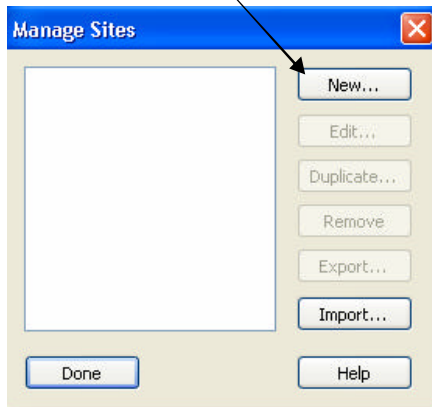
The opening screen will look like this:



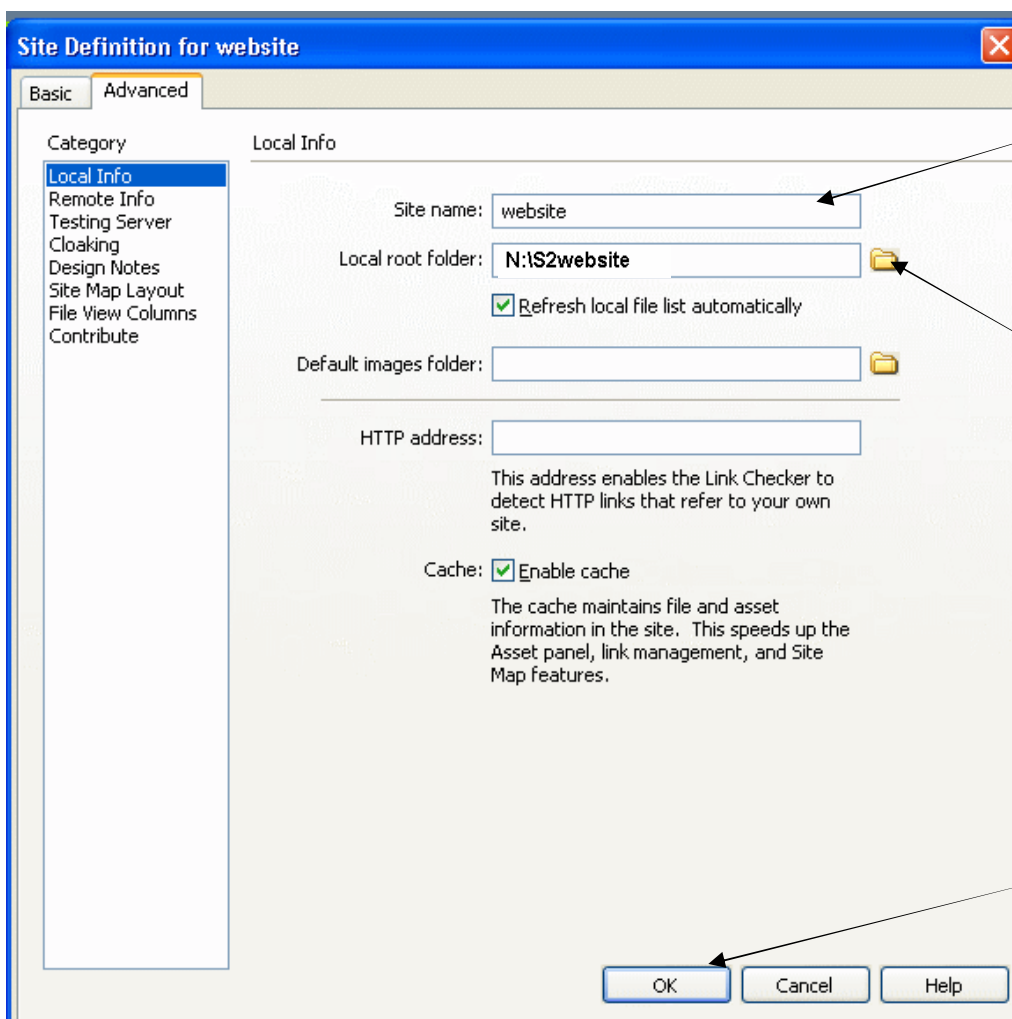
Choose the **Designer** option.

Once the Design view has opened up, click on **Manage Sites** from the File window on the right hand side. You should see the following window open up:

Click on the **New** button to set up a new website.



Choose the **Advanced** tab, and you should see the dialogue box below:

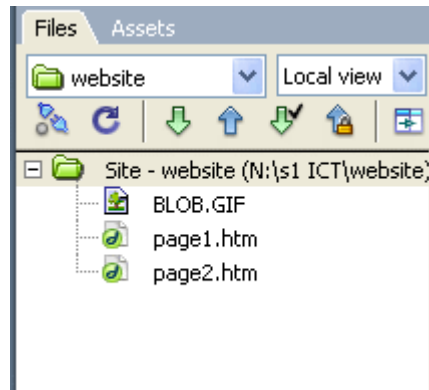


Give your website a name

Click on this folder icon and navigate to your website

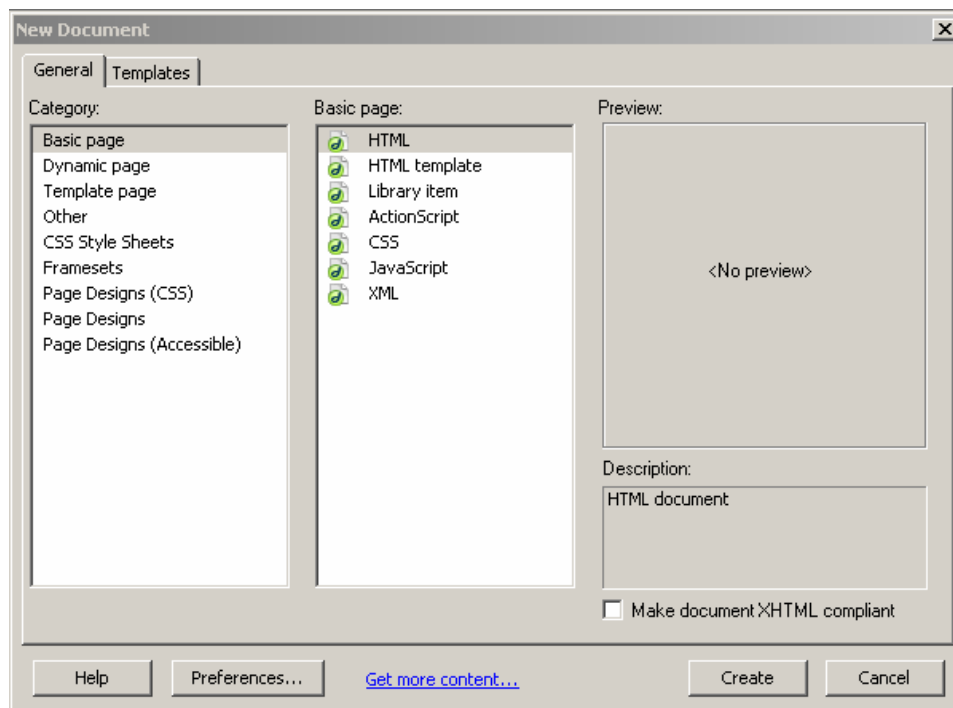
Click here when you have finished

You should now see your website folder and any graphic files which you have put into your website folder in your file list

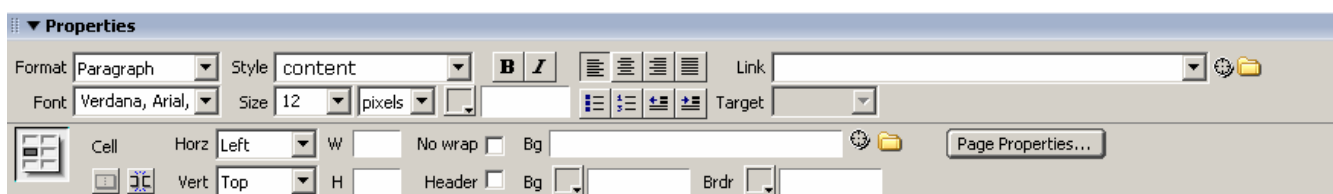


Creating a new page and Inserting Text:

Choose **File New** from the menu and select a basic page. Click on the **select** button.

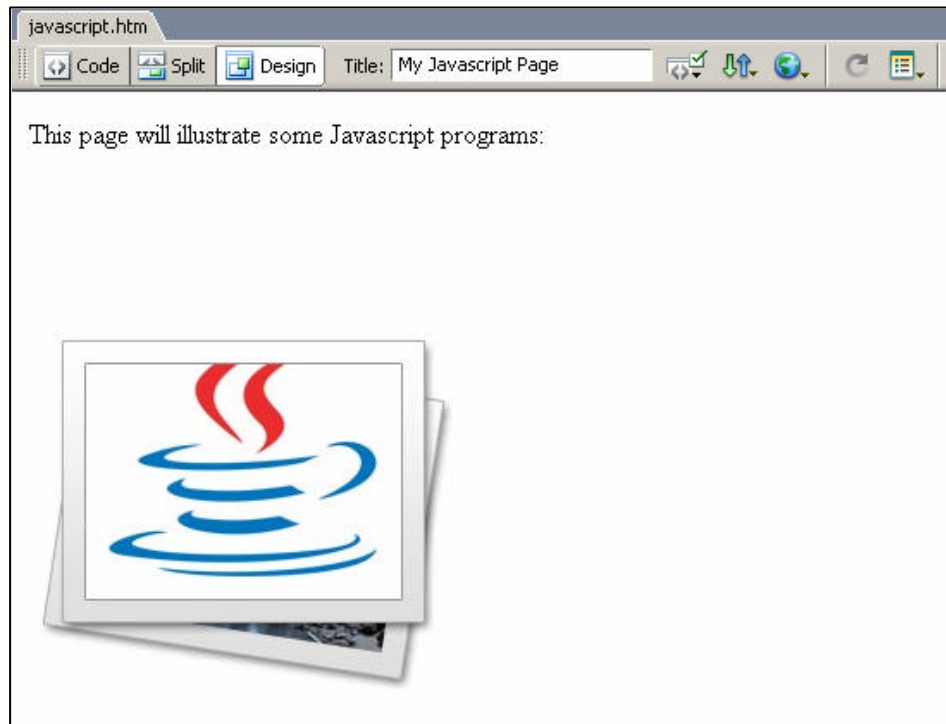


Click on your new page with the mouse. You can type in text as if you were using a word processor. And you can make the text bold and centred by highlighting it and then click on the effect you want to achieve in the properties section at the bottom of the screen



Inserting Graphics:

Before you can put an image on your web page you need to save it in the **S2 website** folder you created in your My Documents. You can save images from the Internet or create them yourself using a painting program. If you create them yourself, you must save them as either **jpg** or **gif** files using the **save as** option because these are the file types used for images on the Web.



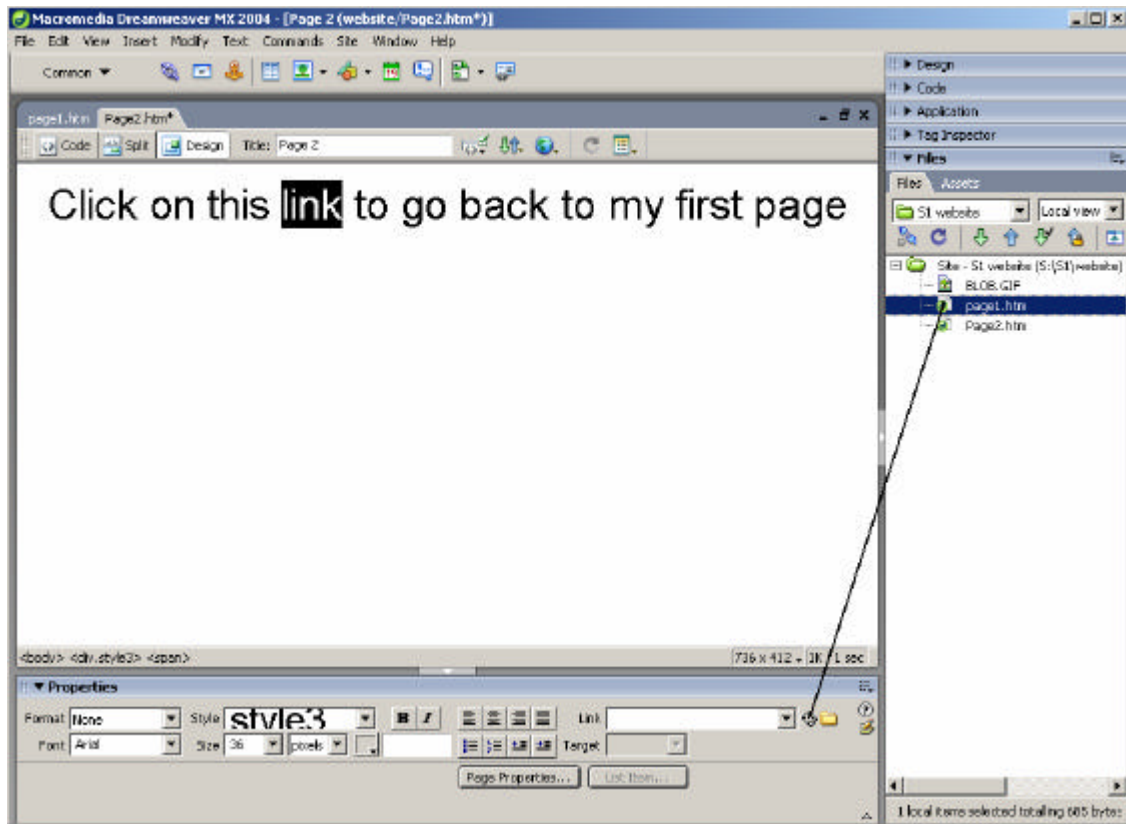
Testing your pages:

You can test out both of your pages and the links between by pressing the **F12** key

You must have saved each of your pages before you can test them

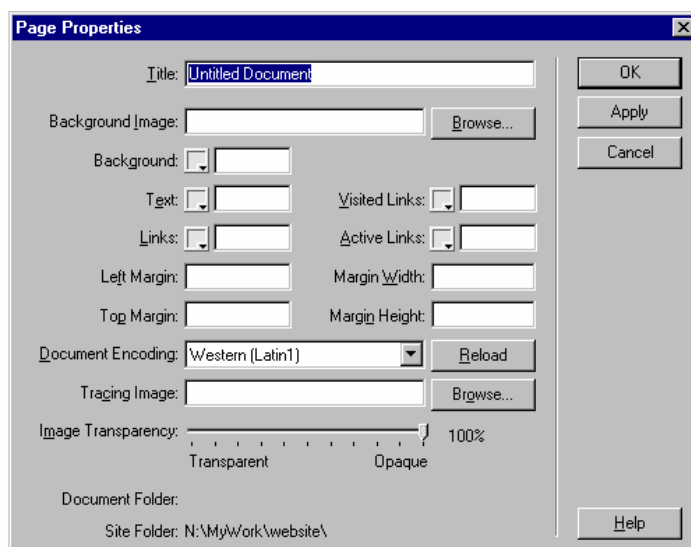
Making a link:

Highlight the text on the page which you want to make into a link, then drag the tool beside the link box to the page you want to link to:



Setting page properties:

You can set up your page properties from the Modify menu. Choose Page Properties:

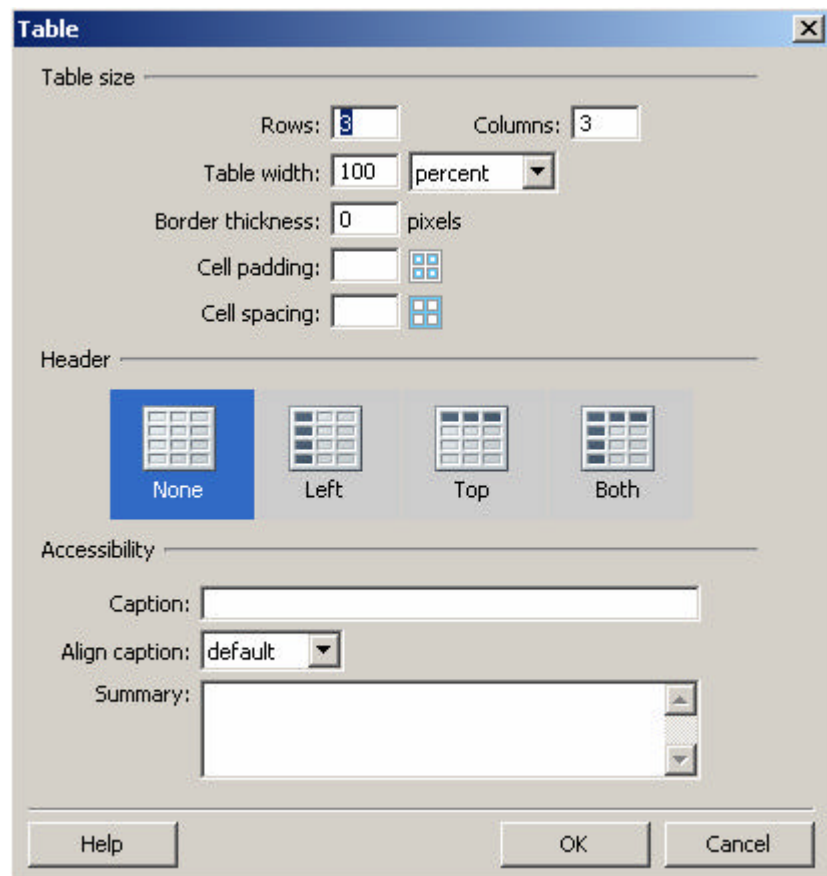


You can change the background colour, background image (and its transparency) colours of links etc. from here.

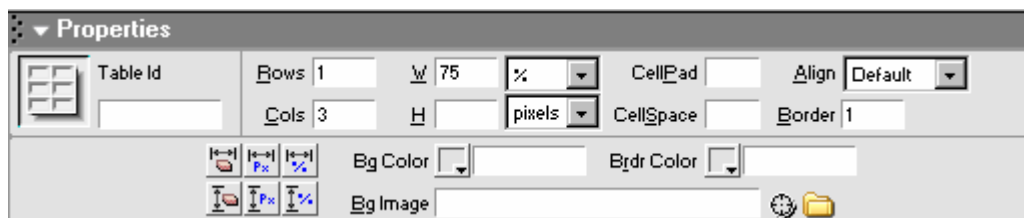
Using Tables:

Tables are a way of laying out text or graphics on a page which lets you control where they appear. If you want to put a lot of graphics on your page it is best to put them into a table by choosing **table** from the **insert** menu.

You can insert a table from the Insert menu



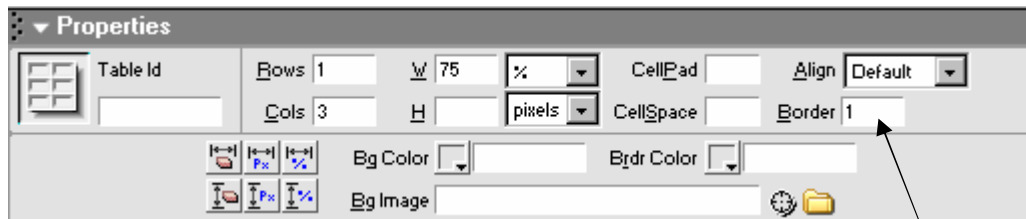
Once you have inserted a table, its properties can be modified using the property inspector at the bottom of the screen.



Using a table to lay out a page

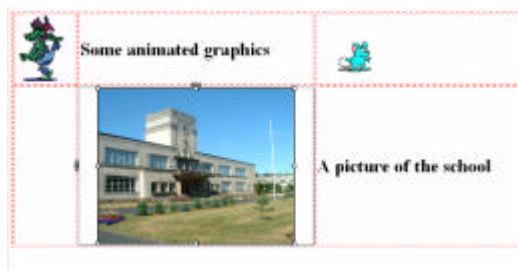
Once your table is inserted you can set the cell borders to 0 if you don't want them to show up when you view the page in a browser. (This way you can lay out items on a page using a table without the lines showing how it has been done)

To remove the borders from the cells in a table, select the table and then choose **table properties** from the table menu



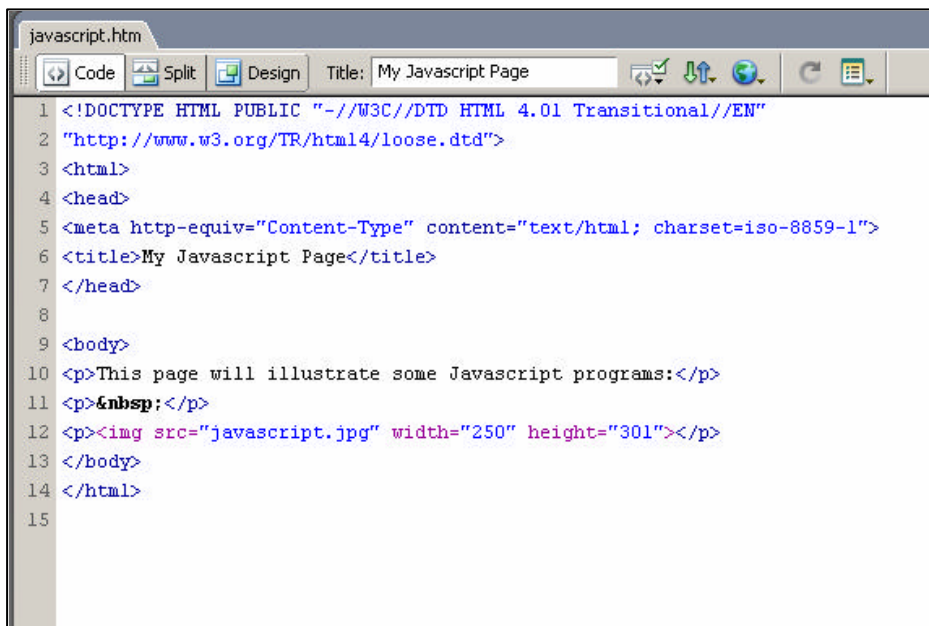
Set this to zero to remove the lines between the

How it looks in Dreamweaver:



How it looks in a browser:



Viewing the code behind a page:

```
1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
2 "http://www.w3.org/TR/html4/loose.dtd">
3 <html>
4 <head>
5 <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
6 <title>My Javascript Page</title>
7 </head>
8
9 <body>
10 <p>This page will illustrate some Javascript programs:</p>
11 <p>&nbsp;</p>
12 <p></p>
13 </body>
14 </html>
15
```

You can switch between views by clicking on the **Code** or the **Design** tabs at the top of the page

Notice that the code for the page is divided into two sections: The head section is in between the **<head>** and the **</head>** tags. The body section is in between the **<body>** and the **</body>** tags

A first Javascript program:

Start a new web page and click on the **code** tab.

place this code in the **head** section of your page

```
<title>
  Your Page title here
</title>

<script language="JavaScript">
  alert("Your message here");
</script>
```

Save the page, then open it in a browser and watch what happens.

Javascript calculations:

Start a new web page and click on the code tab.. Put this code into the **head** section of your page

```
<SCRIPT language = JavaScript>

function add() {
  A = document.form1.number1.value
  B = document.form1.number2.value
  A = Number(A)
  B = Number(B)
  C = (A + B)
  document.form1.answer.value = C
}

</SCRIPT>
```

Note:

If you find that the scripts take too long to copy down, you can find them in the Javascript section of the S2 folder in Computing Shared Documents. You can copy and paste them from there.

Now put this script into the **body** section of the page

```
<form name="form1" >
  Number one:
    <input type="text" name="number1" value = "">
  Number two:
    <input type="text" name="number2" value = "">
  Answer:
    <input type="text" name="answer" VALUE = "">

    <input type=Button name="Add" value="Add"
onClick = add()>

</form>
```

Save the page, then open it in a browser and type two numbers into the two boxes and click on the add button to get an answer.

Number one: Number two: Answer:

Challenge: See if you can add multiply, divide and subtract buttons.

Hint: You can copy and paste the code in the head section of the page to save you re-typing

Dropdown menu:

Start a new web page and click on the code tab.. Put this code into the **head** section of your page

```
<script LANGUAGE = "Javascript">

function MM_jumpMenu(targ,selObj,restore)

{eval(targ+".location='"+selObj.options[selObj.selectedIndex].value+"'") ;

    if (restore) selObj.selectedIndex=0 ;
}

</script>
```

Now put this script into the **body** section of the page.

```
<select
name="select"onChange="MM_jumpMenu('parent',this,0)">
    <option selected>Menu</option>
    <option
value="http://www.google.co.uk">Google</option>
    <option
value="http://www.kelso.scotborders.sch.uk">KHS</option>

    </select>
```

Save the page, then open it in a browser and check that the menu works.

Challenge: edit the code so that the menu offers your own choice of links, at least one of which should be a page in your own website folder.

Digital Clock:

Start a new web page and click on the code tab.. Put this code into the **head** section of your page

```
<SCRIPT LANGUAGE="JavaScript">

var timerID = null
var timerRunning = false

function showtime(){
    var now = new Date()
    var hours = now.getHours()
    var minutes = now.getMinutes()
    var seconds = now.getSeconds()
    var timeValue = "" + ((hours > 12) ? hours - 12 : hours)
    timeValue += ((minutes < 10) ? ":0" : ":") + minutes
    timeValue += ((seconds < 10) ? ":0" : ":") + seconds
    timeValue += (hours >= 12) ? " P.M." : " A.M."
    document.clock.face.value = timeValue
    timerID = setTimeout("showtime()",1000)
    timerRunning = true
}

</SCRIPT>
```

Now put this script into the **body** section of the page. (You will need to edit the first body tag)

```
<body onLoad="showtime()">
<form name="clock" onSubmit="0">
<INPUT TYPE="text" NAME="face" SIZE=11>
</form>
```

Save the page, then open it in a browser and check that the clock works.

Challenge : Try adding the script to one of your saved web pages

Rollover Images:

This script makes an image change when you move the mouse over it. You will need two images in the same place as your page. One called **square.gif**, the other called **circle.gif** You can copy these from the S2 Javascript folder in shared documents

Start a new web page and click on the code tab.. Put this code into the **head** section of your page

```
<SCRIPT LANGUAGE = "Javascript">

function swap(){
document.images[0].src='square.gif'
}
function swap2(){
document.images[0].src='circle.gif'
}
</SCRIPT>
```

Now put this script into the **body** section of the page.

```
<h1> Is it a square or is it a circle? </h1>
<p>
<IMG SRC = 'circle.gif' onMouseOver = "swap()"
onMouseOut="swap2()">
</p>
```

Challenge: Can you find two other images and make them swap around instead of the circle and the square.

Simple Quiz page:

Start a new web page and click on the code tab.. Put this code into the **head** section of your page

```
<script language="vbscript">

    sub check_answer_OnClick()
    dim value_to_check
    value_to_check= useranswer.value

    if value_to_check = "42" then
        alert "Well done"

    else
        alert "sorry the answer was 42"

    end if
end sub

</script>
```

Now put this script into the **body** section of the page.

```
What is the answer to life the universe and
everything? <p>

<input TYPE="text" NAME="useranswer">

<input TYPE="button" NAME = "check_answer"
VALUE="Type the answer in the box then click here">
```

Challenge:

Adapt the script to ask your own question

See if you can add a second question of your own

Hint: you will need to make another copy of the script in the head section, but rename the **check_answer**, **value_to_check** and **useranswer** variables

Web Authoring project:

Create a home page with links to the pages you have created which illustrate the various tasks in this unit. Ideally you should use a javascript menu system to link to your other pages as well as conventional links.