



Activity type	classroom <input checked="" type="checkbox"/> homework <input checked="" type="checkbox"/> independent learning <input type="checkbox"/> other <input type="checkbox"/>		
Activity objectives(s)	Experience a variety of programming languages  Consider similarities between programming languages  Compare programming language environments with regard to ease of use, debugging tools etc.		
Activity resources(s)	You will need a selection of installed programming languages, though there are some online resources.		
Delivery mode	teacher led <input checked="" type="checkbox"/>  student led <input type="checkbox"/>	Collaboration type	individual <input checked="" type="checkbox"/>  pairs <input type="checkbox"/>  groups <input type="checkbox"/>
Task description	Students research programming languages for homework in advance of the lesson.  Unit 1 Topic 1.4 read and complete activity for homework.  Students complete a simple programming task using a variety of programming languages. and are asked to compare the programming environments and the languages used  Ask students to list the features of the environment which help the programmer such as; <ul style="list-style-type: none"> <li>• Colour coding of keywords, variables, text etc.</li> <li>• Predictive text</li> <li>• Automatic indentation</li> <li>• Helpful error messages</li> <li>• Whether the code needs to be compiled before it can be checked for syntax errors</li> <li>• Debugging tools</li> </ul> Ask the students to compare programming languages with regard to how “English like” the code is.		



# SCHOLAR Lesson Outline

Differentiation (Alternative use)	This activity could be used for both National 5 and Higher
Hints & Tips	<p>You will need a simple programming task which can be completed quickly in each language. If students are already familiar with the languages you wish to use then supplying them with the pseudocode for the problem you wish them to solve should be sufficient, otherwise it may be better to supply them with the code for each environment.</p> <p>Example problem pseudocode:</p> <pre>SEND ["What is the capital of France?" ] TO DISPLAY RECEIVE UserAnswer FROM (STRING) KEYBOARD IF UserAnswer = "Paris" THEN     SEND "Well done" TO DISPLAY ELSE SEND "Wrong, the correct answer is Paris" TO DISPLAY END IF</pre> <p>The emphasis here is not on the problem to be solved, but to compare the languages and environments.</p>
Notes	<p>Scholar link: Unit 1 Topic 1.4, 1.5, 1.6</p> <p>Web links:</p> <p><a href="http://www.compileonline.com/execute_python_online.php">http://www.compileonline.com/execute_python_online.php</a></p> <p><a href="http://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic">http://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic</a></p>