

Lesson: 3. Complete the happiness app.		Comic: 2
Overview of Key Skills Concepts – happiness apps, positive affirmations, jokes and humour, mood improvement Skills and process – research skills, report/article-writing, programming skills		Cross-curricular links English: reading and writing PSHE: Health and Wellbeing
Learning Objectives:	<ul style="list-style-type: none"> • To understand the basics of .net programming including forms, classes, objects, subroutines, variables, arrays and loops. • To understand how to obtain the current date in Visual Basic. • To understand how to calculate the difference (in days of the year) between two dates • To understand how to use the result as index to an array of strings • To understand how to add speech and music to an app 	
Key Teaching Points / Research Opportunities	<p>Discuss some of the concepts and research that was carried out in the previous lesson.</p> <p>Now we need to show today's date on the button. How can we program this? (<code>Button1.Text = DateTime.Now.ToLongDateString</code>)</p> <p>How can we turn the result of this date into a unique number from 1 to 365? i.e.....</p> <pre>Dim firstdate As Date = "01/01/" + Now.Year.ToString Dim numberofdays = DateDiff(DateInterval.DayOfYear, firstdate, Now.Date)</pre> <p>How can we use this number to place the appropriate joke/affirmation on the textbox? i.e.</p> <pre>TextBox1.Text = affirmation(numberofdays)</pre> <p>Perhaps it's time to add some speech to our program.... Discuss using a speech class (with the appropriate MS Speech reference).</p> <p>How could we make this even better....upbeat music/tracks?</p>	
Independent Work	Use a given series of music track excerpts to create an array of music to add to the app.	
Plenary	<ul style="list-style-type: none"> • What have you learned this lesson that you didn't know before? • Discuss the key questions for this lesson (as shown below) • Test your program • Save your program. • Perhaps we could upload this as a free download on the school website!!! <p>Now let's try the End-Of-Lesson Assessment.</p>	

Resources, including ICT	Text file containing jokes and/or affirmations PC computers with screen magnification/speech Microsoft Visual Basic Set of music excerpts End-Of-Lesson Assessment Online quiz
Key Questions	<ul style="list-style-type: none"> ● How do we show today's date on a button (or other appropriate control)? ● How do we calculate the number of days from the start of the year to the current date? How do we use the result in our program? ● How do we use this to place the appropriate message on the textbox? ● How would we add speech to the app? ● How would we add music to the app?
Vocabulary	Apps, applications, positive affirmations, Visual Basic, C#, forms, classes, subroutines, objects, variables, arrays, loops, dates, date interval, index.
Success Criteria	<ul style="list-style-type: none"> ● Ability to understand the basics of .net programming including forms, classes, objects, subroutines, variables, arrays and loops. ● Ability to understand how to obtain the current date in Visual Basic. ● Ability to understand how to calculate the difference (in days of the year) between two dates ● Ability to understand how to use the result as index to an array of strings ● Ability to understand how to add speech and music to an app
Assessment Opportunities	<ul style="list-style-type: none"> ● Post-Lesson Assessment sheet and online quiz ● Completed app – Peer feedback