

Scope and Sequence

Chapter 1: Getting Started	
Lesson	Overview
1	What You Already Know
2	Types of Computer Games
3	What You Will Learn and Do In This Course
Your Turn! Activity	<i>Install the Visual Basic Express Edition software on your computer.</i>

Chapter 2: Game Design	
Lesson	Overview
1	Game Proposal
2	Game Engine
3	Events and Timers
4	Blinking Rectangles
Your Turn! Activity	<i>Clock Application</i>

Chapter 3: Drawing On The Screen	
Lesson	Overview
1	Screen Coordinates
2	Arrays
3	Structures
4	Drawing Simple Shapes
5	Bouncing Lines
Your Turn! Activity:	<i>Bouncing Lines</i>
Your Turn! Activity:	<i>Lines of Color</i>

Chapter 4: User Input	
Lesson	Overview
1	Mouse Events
2	Keyboard Events
3	The Select Statement
Your Turn! Activity	<i>Dancing Squares</i>
Your Turn! Activity	<i>Dancing Circles</i>

Chapter 5: Graphics in Visual Basic	
Lesson	Overview
1	The Graphics Object
2	Pens, Brushes, and Shapes
3	My Paint Program
Your Turn! Activity	<i>Create Your Own Shapes</i>

Chapter 6: Images and Animation	
Lesson	Overview
1	Animation Concepts
2	Loading and Displaying From Files
3	Animation With Timers
Your Turn! Activity	<i>Your Own Animation</i>

Chapter 7: Sprites	
Lesson	Overview
1	Sprite Concepts
2	Introducing Bubble Blaster
Your Turn! Activity	<i>Starting Bubble Blaster</i>
3	Sprite Movement
Your Turn! Activity	<i>Blowing Bubbles</i>
4	Combining Sprites with Data Structures
Your Turn! Activity	<i>Initialize the Spaceship</i>

Chapter 8: Game Logic	
Lesson	Overview
1	Controlling The Ship
Your Turn! Activity	<i>Ship Movement</i>
2	Sprite Life-spans
Your Turn! Activity	<i>Ready, Aim, Fire!</i>
3	Collision Detection
Your Turn! Activity	<i>Damage Control</i>
4	Winning the Game
Your Turn! Activity	<i>Victory at Last</i>

Chapter 9: Sound	
Lesson	Overview
1	Simple Sounds
Your Turn! Activity	<i>Mary Had a Little Lamb</i>
2	Loading and Playing Sound Files
3	Adding Sound to Bubble Blaster
Your Turn! Activity	<i>Finish Bubble Blaster Sounds</i>

Chapter 10: Artificial Intelligence	
Lesson	Overview
1	Understanding AI
2	Learning How to Fish
Your Turn! Activity	<i>Completing the DoAI() Function</i>
3	Smarter Fisherman
Your Turn! Activity	<i>Completing the Smarter Fisherman</i>

Chapter 11: Saving Your Games	
Lesson	Overview
1	File Input and Output
2	SaveFileDialog and OpenFileDialog
3	Saving and Loading the Game State
Your Turn! Activity	<i>Freezing and Thawing Fish</i>

Chapter 12: Game Physics	
Lesson	Overview
1	Reflection
2	Gravity and Projectiles
Your Turn! Activity	<i>The Ice Cream Toss Game</i>
3	Wind Acceleration
Your Turn! Activity	<i>Huff and Puff</i>

Chapter 13: Drawing Text and Printing	
Lesson	Overview
1	Printing Text on the Screen
Your Turn! Activity	<i>Word Search</i>
2	Using the Printer
Your Turn! Activity	<i>Printing Word Search</i>

Chapter 14: Final Project	
Lesson	Overview
1	Chain Reaction
2	Creating the Game Board
Your Turn! Activity	<i>Starting the Game</i>
3	Putting Your Mark on the Board
Your Turn! Activity	<i>Making Your Mark</i>
4	Blowing Things Up
Your Turn! Activity	<i>Exploding Cells</i>
5	Last Link in the Chain
Your Turn! Activity	<i>Final Touches</i>
6	Extra Credit

Chapter Notes, Tests, and Activity Solutions

The next chapters contain teaching notes, activity solutions and tests with answer keys for each student textbook chapter. The teaching notes contain a brief paragraph about each lesson. The tests and answer keys are arranged on separate pages so you can duplicate or extract just the test page for your student. The activity solutions are briefly described and you will find the complete solution code on the Teacher's CD. You can open the Visual Studio solution provided within Visual Studio to let you easily browse through the solution source files. This is how your student will be managing his or her source code, so you should be familiar with the basic development environment.

Test questions are free-form answers, not multiple-choice. In most cases the answers are derived from the student text and our answers are listed in the answer key. However some questions may ask the student to be creative and you may use your judgment evaluating the answer.