THE ULTIMATE PLAYER'S GUIDE TO
MINECRAFT

The most in-depth full-color Minecraft guide available!

FREE SAMPLE CHAPTER
SHARE WITH OTHERS
The Ultimate Player’s Guide to
MINECRAFT

Stephen O’Brien
The Ultimate Player's Guide to Minecraft

Copyright © 2014 by Que Publishing

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.


Library of Congress Control Number: 2013946682
Printed in the United States of America
Sixth Printing February 2014

Trademarks
All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Que Publishing cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

Minecraft is a trademark of Notch Development AB.

Warning and Disclaimer
Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided is on an “as is” basis. The author and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book.

Bulk Sales
Que Publishing offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales. For more information, please contact

U.S. Corporate and Government Sales
1-800-382-3419
corpsales@pearsontechgroup.com

For sales outside of the U.S., please contact

International Sales
international@pearsoned.com
Contents at a Glance

Introduction 1

CHAPTER 1 Getting Started 7
CHAPTER 2 First-Night Survival 23
CHAPTER 3 Gathering Resources 47
CHAPTER 4 Mining 69
CHAPTER 5 Combat School 83
CHAPTER 6 Crop Farming 103
CHAPTER 7 Taming Mobs 125
CHAPTER 8 Creative Construction 137
CHAPTER 9 Redstone, Rails, and More 159
CHAPTER 10 Enchanting, Anvils, and Brewing 195
CHAPTER 11 Villages and Other Structures 217
CHAPTER 12 Playing Through: The Nether and The End 231
CHAPTER 13 Mods and Multiplayer 251
APPENDIX A Crafting Recipes (Online)
Index 273
# Table of Contents

**Introduction** 1
- What’s in This Book 2
- How to Use This Book 4
  - Crafting Recipes 4
- There’s More Online... 5

**Chapter 1 Getting Started** 7
- Registering and Downloading 7
  - Registering a Mojang Account 8
  - Purchasing Minecraft 10
- Launching Minecraft 12
- Starting a New Game 14
  - Choosing a World Generation Style 16
- Singleplayer Game Modes 16
- Seeding Your World 18
- Controls 19
- The Bottom Line 20

**Chapter 2 First-Night Survival** 23
- Survive and Thrive 23
- Head for the Trees 25
- Using Your Inventory 27
- Build a Crafting Table 29
  - Let’s Build Some Tools 30
  - Creating a Shelter 33
  - The Furnace Is Your Friend 38
  - Let There Be Light 39
  - Slumber with Lumber 41
- The Bottom Line 44

**Chapter 3 Gathering Resources** 47
- Introducing the HUD 47
- Improving Your Tools 51
- Chests: Safely Stash Your Stuff 54
<table>
<thead>
<tr>
<th>Chapter 4</th>
<th>Mining 69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dig Deep, My Friend 69</td>
<td></td>
</tr>
<tr>
<td>The Mining Layer Cake Guide 71</td>
<td></td>
</tr>
<tr>
<td>Lava Lakes and Other Pitfalls 73</td>
<td></td>
</tr>
<tr>
<td>Descending to Layer 11 74</td>
<td></td>
</tr>
<tr>
<td>The 2x1 Ladder Descent 74</td>
<td></td>
</tr>
<tr>
<td>The Straight Staircase 76</td>
<td></td>
</tr>
<tr>
<td>The Spiral Staircase 77</td>
<td></td>
</tr>
<tr>
<td>Layouts for Fast, Efficient Mining 78</td>
<td></td>
</tr>
<tr>
<td>Staying Safe While You Mine 81</td>
<td></td>
</tr>
<tr>
<td>The Bottom Line 82</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 5</th>
<th>Combat School 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducing the Menagerie 83</td>
<td></td>
</tr>
<tr>
<td>Zombies 84</td>
<td></td>
</tr>
<tr>
<td>Spiders 86</td>
<td></td>
</tr>
<tr>
<td>Skeletons 87</td>
<td></td>
</tr>
<tr>
<td>Cave Spiders 88</td>
<td></td>
</tr>
<tr>
<td>Spider Jockeys 89</td>
<td></td>
</tr>
<tr>
<td>Creepers 89</td>
<td></td>
</tr>
<tr>
<td>Slimes 90</td>
<td></td>
</tr>
<tr>
<td>Endermen 91</td>
<td></td>
</tr>
<tr>
<td>Zombie Pigmen 91</td>
<td></td>
</tr>
<tr>
<td>Defensive Mobs 92</td>
<td></td>
</tr>
<tr>
<td>Snow Golems 92</td>
<td></td>
</tr>
<tr>
<td>Iron Golems 93</td>
<td></td>
</tr>
</tbody>
</table>
Weapons and Armor 94
  Swordcraft 95
  Bows and Arrows 95
  Armor-All 98
  Color Coordinate Your Leather 100

The Bottom Line 101

Chapter 6 Crop Farming 103

Choosing a Crop 103
  Establishing a Farm 106
  Automated Farms 113
  Creating a Piston Harvester 117
  Sticky Piston Harvesting 119
  Creating a Water Harvester 119
  Harvesting Other Crops 122

The Bottom Line 123

Chapter 7 Taming Mobs 125

Farming and Working with Friendly Mobs 125
  Using Leads 128
  Breeding Animals 129

Taming and Riding Horses, Donkeys, and More 130
  Armoring Your Horse 132
  Loading Up the Pack 133
  Riding Pigs 134

Fishing 134

The Bottom Line 135

Chapter 8 Creative Construction 137

Leaving the Cave 137

Unleashing Your Interior Decorator 140

Building Underwater 147

Protecting Your Perimeter 153
  Become a Ditch Witch 153

Mob Pitfalls 155
  Thick as a Brick 157

The Bottom Line 157
# Chapter 9  Redstone, Rails, and More  159

*Seeing Red: A Beginner’s Guide*  160
- Power Sources  160
- Redstone Wiring  164
- Powered Blocks  166
- Modifiers  167
- *Repeaters*  168
- *Comparators*  170
- Output Devices  171

*Automatic Doors*  173
- Vertical Currents  178

*Advanced Circuits*  180
- NOT Gates, aka Inverters  180
- OR Gates, or Any Input Will Do  181
- AND Gates, Two True  182
- Repeater Loops  184

*Rail Transport*  185
- Have Minecart, Will Travel  186
- Rolling on Rails  188
- Making Tracks and Stations  190
- T-Junctions  191
- Halfway Stations  192

*A Word About Hoppers*  193

*The Bottom Line*  194

# Chapter 10  Enchanting, Anvils, and Brewing  195

*Enchanting Wiles*  195
- Creating and Mining Obsidian  197
- Crafting Books  200
- Casting Enchantments  200
- Improving Enchantment Chances with Bookshelves  202
- Earning and Managing Experience  203
- Spruce Up Your Weapons  204
- Enhance Your Armor  205
- Improve Your Tools  206
Chapter 11 Villages and Other Structures  217

Village Life  217
Emerald City: Your Ticket to Trade  220
Hidden Temples and Other Structures  222
  Desert Temples  223
  Jungle Temples  224
  Witch Huts  224
  Dungeons  225
  Abandoned Mineshafts  226
  Strongholds  226
  Nether Fortresses  227
Mapping, or There and Back Again  227
Crafting a Clock  229
The Bottom Line  230

Chapter 12 Playing Through: The Nether and The End  231

Alternate Dimensions  231
Getting to The Nether  234
  Portal Magic  236
Surviving the Nether Fortress  239
Nether Mobs  240
The End Game  242
  Finding a Stronghold  244
  Defeating the Ender Dragon  246
The Bottom Line  250
Chapter 13 Mods and Multiplayer 251

Customizing Your Experience 251
  Changing the Skin You're In 252
Minecraft Skin Editors 253
  Skincraft 253
  Minecraftskins 253
  Novaskin 254

Resource Packs: Change Your World 255
  Mind My Mods 258
  Installing Forge Mods 259
  Too Many Items 261
  More Explosives 262
  Super Heroes 262
  REI's MiniMap 263
  Legendary Beasts 263
  More Mobs 264

Multiplayer Madness 265
  Sharing and Joining on LAN 266
  Joining a Multiplayer Server 267
  Hosting a Multiplayer Server 269

The Bottom Line 272

Appendix A Crafting Recipes (Online)

Index 273
About the Author

Stephen O’Brien is an Australian-born writer and entrepreneur currently residing in Sydney after too many years in Silicon Valley. He has previously written 27 books across multiple editions with publishers such as Prentice-Hall and Que, including several best-selling titles. He also founded Typefi, the world’s leading automated publishing system, and in his spare time he invented a new type of espresso machine called mypressi. He has been playing Minecraft since its earliest days and remains astounded at the unparalleled creativity it engenders.
Dedication

To Mika, who at age nine taught his dad to laugh hysterically at the sight of a pig riding up a mountain in a minecart. Laughs and love always, dear boy.

Acknowledgments

It’s an author’s dream to work with a talented team, and I feel like I’m having a better dream than most. After 12 years away from Que working on entrepreneurial projects, I was incredibly fortunate to step straight back into the fold of a fantastic group. I’d like to thank Rick Kughen for his outstanding project direction, polished editorial efforts, and always gentle prompting even as I started to run behind schedule. Rick, it’s such a true pleasure to work with you again. Seth Kerney, thank you for so smoothly shepherding this book through the numerous stages of the publishing process. Karen Gill, I appreciate your thorough, precise copyediting and constantly joyful feedback. Mark Shirar, you created a fantastic cover and page design. And Tim Warner, thanks for a technical edit that truly left no block uncovered, no cobblestone unturned.

Writing a book always feels a long leap into the dark, with the only light often being close family and friends. I thank you all, in particular my dad, Tony; my siblings, Justin, Adele, and Siobhan; my dear friend Laura; and everyone else who gave me no end of encouragement, best wishes, and a chorus of variations on the very Australian “goodonya.”

Last, but by no means least, thank you, Amy, for your constant love, support, and encouragement.
We Want to Hear from You!

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we’re doing right, what we could do better, what areas you’d like to see us publish in, and any other words of wisdom you’re willing to pass our way.

We welcome your comments. You can email or write to let us know what you did or didn’t like about this book—as well as what we can do to make our books better.

Please note that we cannot help you with technical problems related to the topic of this book.

When you write, please be sure to include this book’s title and author as well as your name and email address. We will carefully review your comments and share them with the author and editors who worked on the book.

Email: feedback@quepublishing.com
Mail: Que Publishing
      ATTN: Reader Feedback
      800 East 96th Street
      Indianapolis, IN 46240 USA

Reader Services

Visit our website and register this book at quepublishing.com/register for convenient access to any updates, downloads, or errata that might be available for this book.
Imagine waking one morning thrust from your soft, cozy bed into a strange new world. A square sun crosses the sky. You have no tools or weapons—nothing but your bare, knobby hands. You briefly survey the landscape. Hills and forests surround you. A cow lows in the distance.

On a hunch you look for a Horn of Plenty—anything that may deliver something useful. Every other RPG you’ve played has plenty of stuff lying around. But it’s a fruitless search with no cache in sight. Curiously, though, one of your random clicks does dig a hole in the ground. Interesting. But how does it help? You try again. Another hole. Hmmm.

You continue your reconnaissance, admiring the varied terrain, soaring cliffs, verdant forests, and clear blue lakes. It certainly is pleasing to the eye, but this universe seems to work by unfamiliar rules. The sun is moving far too briskly across the sky, and nightfall now looks like it’s mere minutes away.

That can’t be good.

You start a kind of random flail, clicking everything in sight. The trunk of a tree looks promising. Aha! A block of wood falls to the ground. But what to do with it? You have to figure that out later. Darkness descends, and with it comes an unearthly groan. Strange figures appear in the distant gloom, lurching toward you. A slithering slurp shrieks into your senses from behind. A cold finger of fear trips down your spine.

You run for the base of the nearest cliff. If your back’s against the wall, it might as well be a sturdy one. Wait a moment. Is that the mouth of a cave? Perfect! A final quick dash sees you safely inside. The darkness turns to an inky black. You stumble down a ledge putting more distance between you and the horrifying creatures outside. Stop, breathe, look around.

You hear the briefest hiss, like a burning fuse. Frantically spinning to find the source, you catch a glimpse of a ghastly green face. It’s the last you’ll see before a gigantic explosion claims your life.

Welcome to Minecraft and a typical experience for the millions of players who buy this game in ever-increasing numbers on every major platform. Minecraft is, without doubt, one of the most interesting open-ended games ever produced. It’s also one of the most vexatious.

From the first moment I started playing this game, back in the beta, to today’s extraordinary experience, Minecraft has developed into a tour de force of absolutely splendid gameplay, but one that is not easily accessible.
Before I even thought about writing this book I found it popping up more and more frequently in random conversations among all age levels—everyone from my nine-year old’s best friends going on up...way up. Minecraft’s unique open-endedness offers an equally open-ended fascination to people of all ages. Fifty million of them, and counting.

Clearly, Minecraft was enjoying unparalleled success for an independent production, but there was something strange going on. The game still lacked an in-depth tutorial or documentation of any sort. And while there is no paucity of online resources, how do you explain a game where every block bends to your will; where the terrain can dance to your tune; where an electrical system can do a crazy range of things including simulating its own computer; and where other elements such as casting enchantments, brewing potions, and finding a way to get to and defeat the final boss require some curiously specific, obtuse steps and strategies?

The online community has stepped into that breach admirably, going to the point of decompiling the code to understand and document specific game mechanics, but the essentials are often buried among hundreds of thousands of random Minecraft videos or tucked in with other encyclopedically detailed documentation. And, among all that, there are literally thousands of junk sites trying to trick you into clicking on ads or installing malware.

This book fills the gap, bringing together all the key information you need in a single place. Written from the player’s perspective, it takes you through the essentials and then far beyond with all the background information, crafting recipes, strategies, and ideas you need to make your Minecraft world truly your own. It covers everything from first-night survival to hosting your own Multiplayer server.

If you are a parent wondering if Minecraft is suitable for your own kids, consider it to be as far from a consumption-only experience as old-school rote learning is from an active education filled with exploration and discovery. Minecraft will inspire great feats of imagination and a thirst for understanding how its many facets enmesh and evolve. Best of all, it’s like one of those great movies or books that are marketed toward kids but entertain adults on a whole other level. Play it together—even turn off the monsters through its creative or peaceful modes—and enjoy your time playing together with kids as young as four or five. But I warn you, it’s addictive. Please remember to give them a go now and then.

No matter who you are or how you play, you’ll find Minecraft to be an endlessly fascinating, wonderful, enjoyable world. It’s going to be quite the journey!

What’s in This Book

Survive and thrive in Minecraft with 13 chapters of detailed step-by-step guides, tips, tricks, and strategies. Each chapter in this book focuses on a key aspect of the game, from initial survival to building an empire. Make the most of your Minecraft world today:

- Chapter 1, “Getting Started,” will walk you through the steps needed to download and install Minecraft, and start a new game, optionally using seeds to control the world generation.
Chapter 2, “First-Night Survival,” is an essential strategy guide to one of the most challenging times in Minecraft. You’ll learn to craft essential tools and build your first mob-proof shelter, all in less than 10 minutes of gameplay.

Chapter 3, “Gathering Resources,” will fill out the skills you need to build a permanent base of operations, create better tools, store resources, and find food to stave off hunger. I also show you how to use the built-in GPS so you can always find your way home, even after extended forays into the wilds.

Chapter 4, “Mining,” unlocks some of Minecraft’s deepest secrets. I’ll show you the best tunneling plan to uncover the most resources in the shortest possible time, the essential tools required, and the layers you should dig to uncover everything from basic iron ore to diamonds.

Chapter 5, “Combat School,” will get you ready to tackle any mob, including the creeper. From sword-fighting techniques to armor, this chapter has you covered. You’ll also learn the essential perimeter protection techniques for your home.

Chapter 6, “Crop Farming,” will help you become completely self-sufficient, ensuring the hunger bar stays full, constantly boosting your health. Learn to hydrate 80 blocks of farm land with a single water block, and automate your harvests at the touch of a button.

Chapter 7, “Taming Mobs,” is all about Minecraft’s passive animals, the chickens, pigs, cows, horses, and more that populate its world and provide you with valuable resources. Learn to breed animals, tame Ocelots to scare off creepers, and gallop across the world on horseback.

Chapter 8, “Creative Construction,” will help you unleash your inner architect. From grand constructions to inventive interiors, learn about the decorative ways you can use Minecraft’s blocks and items to build the perfect abode.

Chapter 9, “Redstone, Rails, and More,” empowers your world with a host of automated devices. Control redstone power, automated doors, send minecarts on missions, and build stations, stopovers and more.

Chapter 10, “Enchanting, Anvils, and Brewing,” will have you brewing up a storm. Cast spells, improve your weapons and armor, and fall from great heights with grace.

Chapter 11, “Villages and Other Structures,” is your key to interacting with the other non-playing characters. Trade your way to better goods, and learn the secrets of the game’s temples.

Chapter 12, “Playing Through: The Nether and The End,” is the strategy guide you’ll need to get through these tricky sections of the game. Find a fortress fast, get what you need, and then prepare for the Ender Dragon. It’s easy when you know how.
Chapter 13, “Mods and Multiplayer,” will show you how to customize the game, from new character skins to mods that add a host of functionality. And along the way you’ll also learn how to access multiplayer games and set up a permanent world on your own server for family and friends.

How to Use This Book
Throughout this book, you’ll see that I have called out some items as Notes, Tips, and Cautions—all of which are explained here.

NOTE
Notes point out ancillary bits of information that are helpful but not crucial. They often make for an interesting meander.

TIP
Tips point out a useful bit of information to help you solve a problem. They’re useful in a tight spot.

CAUTION
Cautions alert you to potential disasters and pitfalls. Don’t ignore these!

Crafting Recipes
You’ll also see that I’ve included crafting recipes throughout this book. I’ve included the actual ingredients in the text, so just match the pattern you see to create the item, as shown here for a wooden pickaxe. It’s easy, and you’ll be surprised how quickly you can whip them up after just a few uses.
There’s More Online…

In addition to the information packed between the covers of this book, I’ve put together a complete guide to all the crafting recipes online. Feel free to download! Visit http://www.quepublishing.com/register to register your book and download your free PDF copy.
This page intentionally left blank
Gathering Resources

In This Chapter

- Never get lost. Learn the secrets of the HUD and its hidden GPS.
- Improve your tools with more durable materials.
- Safely store your hard-earned resources.
- Learn the easy way to manage hunger.
- Build your first outdoor shelter and enjoy the view.
- Access the full Creative mode inventory.

Minecraft is filled to the brim with all manner of resources, and gathering them is the first step toward getting the most out of the game. In Chapter 2, “First-Night Survival,” you put together a pack of essentials sufficient to last the first night, but this is really just the smallest prequel to the real game, and describing how to find, create, and use other types of resources forms much of this book. This chapter is about building the foundation you can use to launch into the rest of the game. Your focus is on a few key points: build an outdoor shelter, find food to stave off hunger, improve your collection of tools, and build a chest to safely store items. This solidifies your position, making your base more impervious to attack, allows you to do all sorts of Minecrafty things more efficiently, and sets yourself up for longer excursions both above and below ground.

The good news is that you already have a base, so you can explore during the day, try not to lose your way, and head back at night. However, you still need to avoid at least some of the hostile mobs that persist during the day.

Introducing the HUD

Before we start, let’s take a look at the Heads-Up Display (HUD)—that collection of icons and status bars at the bottom of the screen. Figure 3.1 shows the HUD as it appears in Survival mode with all possible indicators displayed. (The Creative mode HUD only shows the Inventory bar.)
FIGURE 3.1 The HUD provides key status indications. Health is all important, but low hunger also leads to low health, so keep a close eye on both.

1. Armor bar
2. Health bar
3. Experience bar
4. Oxygen bar
5. Hunger bar
6. Inventory quick access

Each section of the HUD provides a key nugget of information about the health or status of your avatar:

- **Armor bar**—The armor bar appears when you’ve equipped your avatar with any type of armor and shows the current damage absorption level. Each armor icon represents an 8% reduction in the damage you’ll take, so a 10/10 suit of armor reduces the damage you take by 80%, whereas a 1/10 suit absorbs only 8%. Armor becomes less effective the more damage it absorbs, although the rate at which it deteriorates also depends on its material—leather being the weakest and diamond the strongest.

- **Health bar**—You have up to 20 points of health available, represented by the 10 hearts shown. Each heart disappears in two ticks. Health and hunger have a complicated relationship. You can read more below starting at “Hunger Management.”

- **Experience bar**—The experience bar increases the more you mine, smelt, cook, kill, and fish. Your current level is shown in the middle of the bar. When it’s full, you move to the next experience level. Experience isn’t generally important until you start enchanting and giving additional powers to items such as swords (see Chapter 10, “Enchantments, Anvils, and Brewing”). Unlike other role-playing games, experience in Minecraft is more like a currency that you spend on enchantments, so it waxes and wanes. But all experience gained counts toward the final score shown on the screen when you die. Killing a mob drops experience orbs that either fly directly toward you or float to the ground waiting for you to collect them, and you can also gain experience by smelting certain items in the furnace and carrying out other activities such as finding rare ores. Dying causes a substantial drop in your current experience level.

- **Oxygen bar**—The oxygen bar appears whenever you go underwater and it quickly starts to drop. You can probably hold your own breath for longer! As soon as your oxygen level hits zero, your health starts taking a two-point hit every second, but it resurfaces for just an instant if you hold down the jump key until you’ve reached air once more. Diving isn’t that big of a deal in Minecraft, at least not for completing the core game,
but you can use the ability to do interesting things like building an underwater base. An example is shown in Figure 3.2, and I’ll show you how to build your own in Chapter 8, “Creative Construction,” as well as sharing with you some other underwater breathing techniques.

**FIGURE 3.2** Underwater bases are impervious to mob attacks, even when built from glass, but you’ll need to watch your oxygen bar carefully to ensure you don’t run out of air while building this type of structure. By the way, the only mob that spawns underwater is the friendly, curious squid. Can you make out the one shown here? He’s now part of Elysia’s first private aquarium. Say hello to “Ceph.”

- **Hunger bar**—You also have 20 points of hunger available, as well as a hidden value called Saturation. Like health, each hunger bar icon holds two points and can reduce by half an icon (that icon is, incidentally, a “shank,” or the lower part of a leg of meat) at a time.

- **Inventory quick access**—These nine slots, also known as the Hotbar, represent items you can select with the mouse scroll wheel or by pressing the 1–9 keys. Press E to access your full inventory and to change the items in these slots. The white number next to some shows that slot’s count of stacked identical items. A durability bar also appears under each tool’s icon in green, gradually reducing as you use them until the tool actually breaks and disappears from your inventory. You’ll have some warning of this because the bar turns red when it’s close to zero. See “Improving Your Tools” later in the chapter to learn more about the durability of different materials.
TIP

Showing Durability Stats in the HUD

Press F3+H (or fn+F3+H on OS X) to display the current and maximum durability value of all the tools in your inventory. The value appears in a tool tip when you hover your mouse over that item.

NOTE

HUD Changes When Mounted

The HUD changes when you ride a horse, showing the horse’s health in place of your own. The experience bar also changes to the jump bar. You can learn more about horses and other mountable mobs in Chapter 7, “Taming Mobs,” on page 125.

In multiplayer, your HUD also displays a chat window in the bottom-left corner. Press T to expand the chat window.

Toggle the entire HUD display off and on by pressing F1. Press F3 with the HUD turned on to view a much more detailed HUD debug screen (see Figure 3.3.)

NOTE

Hiding the HUD in the Xbox Editions

You cannot hide the HUD in Minecraft Pocket Edition but there is an option for doing so on the Xbox edition. Press the Start key and open the Help & Options menu. Scroll down to Settings→User Interface and deselect Display HUD. Unfortunately there isn’t a quicker way to do this at present.

The coordinates shown in the debug screen are based on the world’s origin where x=0 and z=0. (y shows your current level above bedrock.) Take a note of the current values. If you become lost before you have had the chance to build a bed and reset your spawn point, you can always find your way back to your original spawn and, presumably, your first shelter, by facing in a direction that will bring both x and z back to those noted values. If you do sleep in a bed and reset your spawn, turn on the debug screen and write down the coordinates shown before you head out.
FIGURE 3.3 The Debug HUD provides a lot of cryptic information but can also help you navigate home.

1. Your location in blocks east of your original spawn point. Blocks west are shown as a negative.
2. Your current vertical height in layers above bedrock.
3. Your location in blocks south of your original spawn point. Blocks north are shown as a negative.
4. The current biome type.

When you need to return, and I should warn you that this can take some experimentation and a little practice, turn and take a few steps while noting the change in values of your current coordinates. Shift those x and z values back toward the coordinates you originally recorded. You’ll probably wander around a bit, but eventually you’ll get there.

Improving Your Tools

Wooden tools wear out fast, so it’s best to upgrade your kit as quickly as possible.

Each type of material has a different level of durability. Think of durability as the number of useful actions the tool can perform before wearing out completely and disappearing from the inventory. I’ve included the durability in parentheses after each material’s description:

- **Gold (33)**—Although this is the least durable material, a gold pickaxe can break blocks out of most softer materials in the blink of an eye, and it happens to be the most enchantable material, so you can imbue it with superpowers (see Chapter 10). But given that gold is about 5 times as rare as iron and can be used to craft many other useful items, I wouldn’t recommend using it for tools.
CHAPTER 3: Gathering Resources

- **Wood (60)**—It’s easy to obtain, especially in an emergency aboveground, but think of wood as just a means of getting to cobblestone because, unlike the latter, wooden tools can’t mine the more valuable ores such as iron, gold, diamond, and redstone. You will at least need a wooden pickaxe to mine stone because doing so with your bare hands will just break the stone down into unusable dust, but after that, switch to stone.

- **Stone (132)**—With just a touch over twice the longevity of wood, stone makes a great starting point for more serious mining and other activities. Stone tools are built from cobblestone blocks, which in turn come from stone. That may seem a little confusing, but it will seem natural enough after a while.

- **Iron (251)**—Iron will become your go-to material. It is found most commonly all the way from bedrock, the lowest layer of the Minecraft world, up to about 20 levels below sea level. Iron is used for building all kinds of tools, implements, and devices including armor, buckets (for carrying water, lava, and milk), compasses, minecarts, and minecart tracks. All these require at least iron ingots obtained by smelting the ore in a furnace, with each block of ore producing one ingot. Ingots and many other items are found scattered throughout the world in village chests, mine shafts, dungeons, and strongholds. You might also find them as drops from killed zombies and iron golems (if you dare tackle them!).

- **Diamond (1562)**—It’s the strongest material of all, but also the most expensive given that diamonds are relatively rare. (You will enjoy the moment you do find your first diamond, but it’s found only in the first 16 layers above bedrock, the lowest layer in the Minecraft world, and even then it’s about 25 times as scarce as iron.) A diamond pickaxe is the only material that can successfully mine obsidian, a material required for creating the portal to reach The Nether region. Given diamond ore is much scarcer than iron but only 6 times as durable, you should use iron pickaxes as much as possible and only switch to diamond when you need to mine obsidian to reach The Nether. You’re better off saving any diamonds you find for weapons (a diamond sword does more damage, and that combined with its increased durability will ensure it lasts much longer than any other material), armor, and enchantment tables.

### NOTE

#### Different Materials for Different Items

Durability applies to all tools, weapons, and armor, although there are differences in the materials that can be used in each case. For example, you can craft leather armor and make stone tools, but not vice versa.
CAUTION

Don’t Let Tools Wear Down to Nothing!

Try not to let a tool become so worn it actually breaks down completely and disappears. Instead, place two of the same type of worn tools in the crafting grid to combine their remaining strength into another and give it a second shot at life, or busting blocks.

The recipes for crafting tools from all materials are identical, save for the replacement of the head of the implement with the material of choice.

- To make a stone pick, you need two wooden sticks for the handle and three cobblestone blocks.

![Crafting](image1)

- Replace in the same way for the axe and the sword.

![Crafting](image2)

![Crafting](image3)

- You might also want to add a shovel to your collection, because it’s about four times faster than using hands to harvest softer materials such as dirt, gravel, sand, clay, and snow, and helps some of those blocks deliver resources rather than just breaking down.

As you craft more items, you need to find somewhere to store those you don’t need to use right away. You should also store other resources and food you come across on your travels. That comes next.
Chests: Safely Stash Your Stuff
Whenever you head away from your secure shelter, there is always a reasonably high risk of death. Creepers, lava pits, long falls— they can all do you in. Respawning is only a moment away, but the real danger here is that any items you’ve collected and carry in your character’s inventory drop at the location of your untimely death and may prove impossible to retrieve in the 5 minutes you have to get back to them before they disappear forever.
Chests act as an insurance policy. Put everything you don’t need in a chest before you embark on a mission, and those things will be there when you get back or after you respawn.
The natural place to leave chests is in your shelter, but you can also leave them elsewhere, perhaps as a staging point as you work away in a mine, or even outside. Mobs will leave them alone, and the only real risk you face is leaving them out in the open on a multiplayer server or getting blown up from behind by a creeper in singleplayer mode while you’re rummaging around inside.
Chests come in two sizes: single and double. A single chest can store 27 stacks of items. Create a double chest by placing two single chests side by side. The double chest stores up to 54 stacks of items. Given that a stack can be up to 64 items high, that’s an astonishing potential total of 3,510 blocks in a crate that takes just 2×1 blocks of floor space. If you’ve ever followed the Doctor Who TV series, consider chests the Tardis of storage!
Create a chest at your crafting table with eight blocks of wooden planks arranged around the outside, leaving a space in the middle.

Place and then right-click the chest to open. You can then move items back and forth between your inventory and the chest. In Figure 3.4, I’ve transferred all the items I don’t need for the next expedition.
Before you head out, there are two other things you should know: how to avoid monsters and how to deal with hunger. Read on.
FIGURE 3.4 Chests act as an insurance policy for your items so they aren’t lost if you die. Use the inventory shortcuts you learned earlier to quickly move items between your active inventory and the chest’s storage slots.

THE CONNECTED CHEST

Chests are undoubtedly useful; it’s difficult to survive without them. But you can’t transport a chest’s contents with you. Need to shift your stash of diamonds? That can make for a fairly fraught journey.

Enter the Ender chest, which is like storage in the cloud. An Ender chest isn’t cheap to make. You’ll need eight Obsidian blocks obtained by combining lava with water, or through regular mining and caving, and one Eye of Ender, collected from a downed enderman. So what’s so good about Ender chests? All of them access the same virtual chest, sharing all contents between them. So let’s say you’ve built multiple dwellings across your vast world, and you have some items—a few favorites—that you’d like to be able to access anywhere you go. Place an Ender chest in each of your dwellings; any items that you place in any of the chests become available in all others. It’s like quantum travel without all that entanglement business.

Avoiding Monsters

There’s a key difference between the Minecraft world on the first and second days. In a word, mobs: hostile ones to be specific. Mobs only spawn in dark areas, and some only during the night, so if you are outside during your first day and stay in well-lit areas, you’ll be reasonably safe. By the second day, however, mobs have had a chance to build their numbers and wander about. It’s not that likely you’ll encounter them on day 2, but it’s best to be prepared.
There are 14 types of hostile mobs in the Overworld. These are the ones you might meet on your second day outside:

- **Zombies**—Zombies burn up in sunlight but can still survive in shadows or rain, or when wearing a helmet, and, of course, in dark caves all hours of the day or night. They are relatively easy to defeat, and if any come after you, just head to a well-lit area and keep your distance while they burn up in the sun.

- **Skeletons**—Skeletons also burn up in sunlight unless they are wearing a helmet, and they can survive at any time in lower light conditions. They’re quite deadly with a bow and arrow and best avoided until you have an iron sword and sufficient cover to avoid their line of fire.

- **Spiders**—Spiders come in two variants: large or blue. You’ll probably only see the larger spiders at this stage. They are passive during the day but become hostile in shadow and can attack at any time if provoked. They’ll climb, they’ll jump, and they are pretty darn fast. Fortunately, they’re also easy to kill with some swift sword attacks. The blue spiders are a smaller, poisonous variant called cave spiders. They live only in abandoned mine shafts underground, but in substantial numbers. If you suffer from arachnophobia, I don’t have much good news for you, except that with a little time you’ll get used to them and they won’t seem quite so nasty.

- **Creepers**—Creepers have a well-earned reputation as the Minecraft bad guys. They are packed to their green gills with gunpowder, and they’ll start their very short 1.5-second fuse as soon as they are within three blocks of you. Their explosion can cause a lot of real damage to you, nearby structures, and the environment in general. If you hear a creeper’s fuse—a soft hissing noise—but can’t see it, run like heck in the direction you’re facing. Remember to sprint by double-tapping and holding your \textbf{W} key. With a little luck, you’ll get three blocks away and the creeper’s fuse will reset. Creepers are usually best dealt with using a ranged attack from a bow and arrow, but if you sprint at them with an iron or diamond sword and take a swipe at just the right moment, you can send them flying back out of their suicidal detonation range, causing the fuse to reset. Most creepers despawn around noon, leaving the afternoon generally free of their particular brand of terror.

- **Slimes**—Slimes appear in the swamp biome and in some places underground. They initially spawn as quite large Jello-like green blocks and are more than capable of causing damage. Attacking eventually breaks them up into 2–4 new medium-sized slimes. These can still attack but are relatively easily killed, only to spawn a further 2–4 tiny slimes each! These last don’t cause any attack damage, but may still push you into peril if you’re unlucky.

If you come across a lone spider, a zombie, or even a slime, now is as good a time as any to get in some sword practice. Just point your crosshairs at the creature and strike with the left
Avoiding Monsters

Avoiding Monsters

Mouse button. Keep clicking as fast as you can, and you’ve got a very good chance of killing the mob and picking up any items it drops before it lands too many blows. Try to avoid the other mobs for now.

TIP

Switch to Peaceful Mode to Get a Break

Getting mobbed by mobs? Click Esc to open the Options window and change your difficulty level to Peaceful. This despawns all hostile mobs and allows your health to regenerate. But do try to switch the level back to Normal as soon as you can.

So how do you avoid mobs? Use these tips to survive:

- Stay in the open as much as you can, avoiding heavily wooded areas if possible.
- Most mobs have a 16-block detection radar. If they can also draw a line of sight to your position, they will enter pursuit mode. (Spiders can always detect you, even through other blocks.) At that point they’ll relentlessly plot and follow a path to your position, tracking you through other blocks without requiring a line of sight. Pursuit mode stays engaged much farther than 16 blocks.
- Keep your sound turned up because you’ll also hear mobs within 16 blocks, although creepers, befitting their name, are creepily quiet.
- Avoid skirting along the edges of hilly terrain. Creepers can drop on you from above with their fuse already ticking. Try to head directly up and down hills so you have a good view of the terrain ahead.
- Mobs are quite slow, so you can easily put some distance between them and yourself by keeping up a steady pace and circling around to get back to your shelter. Sprint mode will leave them far behind.

CAUTION

Sprinting Makes You Hungry

Sprint mode burns up hunger points, so try to use it only in emergencies.
Hunger Management

Hunger plays a permanent role in Minecraft, much as in real life. While it’s only possible to starve to death on Hard difficulty, hunger does affect your character in other ways, so it’s always important to ensure you have the equivalent of a couple of sandwiches packed before heading deep into a mine or on a long trek.

Hunger is a combination of two values: the one shown in the HUD’s hunger bar, as well as a hidden value called saturation. The latter provides a buffer to the hunger bar, decreasing first. In fact, your hunger bar doesn’t decrease at all until saturation reaches 0. At that point, you see the hunger bar start to jitter, and after a short while it takes its first hit. Saturation cannot exceed the value of the hunger bar, so with a full hunger bar of 20 points, it’s possible to have up to 20 points of saturation. However, a hunger level of 6 points also only provides a maximum of 6 points of saturation, and that makes you vulnerable.

You’ll find some key information about the hunger system here:

- On Easy and Normal Survival modes, there is no need to worry too much about hunger because your character won’t drop dead from it. If you’re close to home and pottering around in your farm or constructing some building extensions, you’re fairly safe, but your health starts to drop. Eat something as soon as you can to fill your hunger bar, and rebuild your health.

- Sprinting isn’t possible when the hunger bar drops below 6 hunger points, or 3 shanks, as shown in the HUD.

- Keeping a relatively full stomach at 18 hunger points (9 shanks in the HUD) allows health to regenerate at 1 point (half a heart) every 4 seconds.

- Health depletes if the hunger bar drops to 0, increasing the risk of dying from one of the many imaginative ways Minecraft has on offer (see Figure 3.5).

- There are some limits to the amount health can drop according to the difficulty level. On Easy, health cannot deplete from hunger further than 10 points, or half the full quotient. On Normal, it drops to 1 point, which is an extreme level of vulnerability. On Hard difficulty, there are no limits; don’t ignore the hunger bar, or death from starvation could be just moments away. See “Food on the Run” later in this chapter to help avoid this.
Your Mission: Food, Resources, and Reconnaissance

Your second day is the perfect opportunity to gather food and other resources and to take a quick survey of the landscape surrounding your first shelter, in particular to find somewhere suitable for your first outdoor abode. Keep an eye out for any of the following:

- **Passive mobs**—Chickens, pigs, and cows all provide a ready source of food, or at least raw protein that can be cooked on the furnace and made more nutritious. Cows also drop leather that you can use for your first armor, and when you have an iron bucket, cows can be milked, giving you an instant cure for food poisoning. Chickens also lay eggs, so gather any that you find.

- **Natural harvest**—The harvest includes cocoa pods, apples, cactus, sugar cane, carrots and potatoes (found in villages), and seeds. Knock down tall grass to find seeds. When you plant the seeds, they mature into wheat within 5–8 day/night cycles. From wheat, it’s easy to bake bread, one of the simplest but most effective sources of food, especially if there are no passive mobs nearby. See Chapter 6, “Crop Farming,” for more on agricultural techniques.
Construction resources—You can mine plenty of cobblestone quite safely by expanding your original shelter, digging into the terrain. But some other resources will definitely come in handy. Wood is always useful. If you see any sand, mine it so you can smelt it into glass blocks to let light into your shelter, and provide a view. (There’s no point moving from your first cave into the outdoor equivalent of another!) Also keep an eye out for coal. You can often see it in veins on the surface of the walls of small caves or on the sides of cliffs. If you can safely get to it, make like a miner and dig it out. Use the coal to make torches and to smelt other ores.

TIP

Making Use of Bones

The morning sun burns up skeletons, leaving behind bones that you can craft into bone meal. Bone meal acts as a fertilizer, helping your crops grow faster. You can also use bone to tame wolves, providing you with an extra level of protection. Chapter 7, “Taming Mobs,” has a lot more information on breeding and taming Minecraft’s many friendly creatures.

Start early, heading out with a stone sword at the ready, just in case. If you are low on wood, swing an axe at a few nearby trees.
Move carefully so you don’t lose your bearings. The sun rises in the east and sets in the west, and the clouds always travel from east to west, so you can always at least get your bearings. Following a compass cardinal point (north, south, east, or west) using the sun and clouds as a reference can lead you away and reasonably accurately back home again.

**TIP**

**Finding Your Way**

It’s easy to become lost in Minecraft. Run helter-skelter from your base, chase a herd of livestock, discover a natural cave system, or take a shot across the sea like that famed Norseman, Leif Eriksson. It’s all part of the Minecraft charm. But don’t become Columbus in the process.

A few quick tips:

- When you are able, craft a compass. It takes some redstone and iron, and both are relatively easy to obtain with some assiduous mining. The only problem with a compass is that it always points to your original world spawn point. Think of that point as the magnetic north pole—it’s not a GPS. Sleeping in a bed resets your spawn point but not your compass, so this method falls out of date as soon as you move to new dwellings and update your spawn point.

- A compass is actually more useful when crafted into a map, see Chapter 10, “Enchanting, Anvils, and Brewing” page 195.

- Don’t forget that you can always use the built-in GPS available through the debug screen (mentioned under the “Introducing the HUD” section earlier in this chapter).

**Food on the Run**

If you are getting dangerously hungry, head to the nearest equivalent of a fast food outlet—a passive mob—sword at the ready. Your best bet is to look for cows and pigs because they each can drop up to three pieces of raw meat, with each piece restoring 3 hunger units and 1.8 in saturation. They’re an excellent target of opportunity. You can also eat raw chicken, although with a 30% chance of developing food poisoning, or you can try rotten meat harvested from zombies, which is guaranteed to give you a taste of the stomach aches. But you can also cure any type of food poisoning by drinking milk obtained with a bucket clicked on a cow, and you can eat any amount of poisoned meat, gaining the restorative benefits, and curing the whole lot with one serving of milk. So keep that rotten flesh the zombies drop around! And the bucket o’ milk.
That said, unless you are desperate, it is actually much better to take the time to cook all your meat first. In fact, the secondary processing of foods makes them all healthier, restoring more hunger and saturation points. It’s therefore quite handy to always carry a furnace in your inventory, along with fuel. When you’ve finished cooking, break the furnace down with a pickaxe, and it floats back into your inventory. If you don’t mind seeming like a crazed pyromaniac, you can also both kill and cook pigs, chickens, and cows in one blazing swoop by setting the ground beneath them on fire with a flint and steel (right-click on the ground, not the animal), or a little more chaotically by pouring lava from a bucket. Just take caution that you don’t do this anywhere it could pose a risk, such as near that fantastic wood cabin you just spent the last three weeks building; there’s no Undo key in Minecraft.

**NOTE**

**Fishing in the Sea of Plenty**

Mobs such as chicken, cows, and pigs spawn quite rarely compared to hostile mobs, so consider them a nonrenewable resource if you kill them in the wild. You’re better off breeding them in a farm so they can’t wander off and can be readily replaced. Fish, on the other hand, are unlimited in quantity and very plentiful. You can even fish in waterfalls! By the way, your hunger bar never decreases when travelling by boat, making it the perfect opportunity to get in a spot of fishing. And you can never get food poisoning from raw fish. Sushi anyone? See Chapter 7 for more information.

**TIP**

**Let Them Eat Cake**

What’s the quickest way to fill your hunger bar? Eat cake. Unlike another well-known game, Minecraft’s cake is not a lie. Cake has a quite a complicated recipe, but each full cake provides up to 6 slices, each worth 1.5 hunger points, or 9 in total, and it’s less resource intensive than creating golden apples. Minecraft rewards calories, so eat as much as you like without penalty, quickly building back your full hunger bar but, as in the real world, the nutrients are lacking, so cake doesn’t provide any saturation benefit. Make sure you eat some more nutritional foods such as protein as your hunger bar starts to top out to ensure you also get that extra boost. If only they added pizza!

Finally, if you simply cannot find mobs, your hunger bar has dropped to 0, and your health has plummeted to half a point, consider at least planting a wheat field and waiting it out in your shelter for three blocks of wheat to grow so you can harvest them and bake bread.
There’s one final alternative, and this is a pretty neat trick. Assuming you have reset your spawn point to a bed or are still near origin, head to your shelter, place everything you carry in a chest, and then head outside and either jump off a cliff, drown in a lake, or wait for a mob to kill you. You respawn back in your shelter with full health, a full hunger bar, and all your possessions waiting for you. Get dressed, fully equipped, and head out there to try again.

Finding a Building Site

As you scout around, keep in mind that you are also looking for a new building site. This doesn’t have to be fancy or even particularly large. A 6×5 space manages just fine, and even 6×4 can squeeze in the basics. You can also level ground and break down a few trees to clear space. I did this in Figure 3.7. The site is located just up the hill from the first dugout, overlooking the same lake and river system.

![Figure 3.7](image.png)

**FIGURE 3.7** A nice, flat, elevated building site after clearing some trees and filling some holes in the ground with dirt.

I usually prefer space that’s a little elevated because it provides a better view of the surroundings, but it’s perfectly possible to create a protected space just about anywhere. You may even decide to go a little hybrid, building a house that’s both tunneled into a hill and extending outside.
TIP

Light Those Caves

Check for any caves or tunnels close to your site’s location. If they aren’t too big, light them up with torches to prevent mobs spawning inside and wandering out during the day, or just block their entrance for now.

So what can we build on this site? Let me show you a basic structure. It takes 34 cobblestone blocks dug out of the first shelter and 12 wood blocks for the roof obtained by cutting down the 3 trees that were occupying the site.

FIGURE 3.8 The layout for a small cobblestone cabin using a total of 46 blocks, roof not shown. The sharp-eyed will notice it can be reduced in width one space further, but for the sake of four blocks, that would feel a little claustrophobic.

You can build the roof from almost any handy material, including dirt, cobblestone, and wood. Avoid blocks that fall down, such as gravel and sand. A two-block high wall keeps out all mobs except for spiders, because they can climb walls. An overhang on the wall keeps spiders out because they can’t climb upside-down, but it’s easier to just add a roof, especially if there are trees nearby the spiders can climb up and use as an arachnid’s springboard to jump straight into your dwelling. (Yes, it’s happened to me. Sent shivers up my spine.) Figure 3.9 shows the finished hut with a few torches on the outside to keep things well lit.
FIGURE 3.9  The finished hut—basic but serviceable. And it’s spider proof. Although there is a large gap above the door, in Minecraft’s geometry the door fills the entire space. Spiders are also two blocks wide, so they can’t fit through a one-block-wide gap. You could actually leave the door wide open, and spiders will just gather outside and make horrible noises, but don’t do that because it’s an invitation for other mobs to enter.

TIP

No Housing Codes in Minecraft

The roof in Figure 3.9 rests right on the lip of the inner wall. You can’t directly build a roof like this from scratch. First place a block on top of the wall, and then attach the inner block for the roof. Remove the first block, and the inner block floats. Attach new blocks to that to build out the roof structure. It won’t pass a building inspection, but it certainly works in Minecraft.

Building a wall even two blocks high can take a little bit of fancy footwork. Some basic techniques help:

- Place your walls one layer at a time. Put down the first layer, and then jump on top to place the second.
- If you fall off, place a temporary block on the inside of your structure against the wall, and use this to climb back up. You can remove it when you’re finished.
- Use pillar jumping if you need to go higher. While looking directly down, press the
spacebar to jump and then right-click to place a block underneath you. You land on that block instead of the one below. Repeat as often as necessary. Dig the blocks out from directly underneath you to go back down.

- Hold down the Shift key as you work around the top of tall walls so you don’t fall off. You can even use this technique to place blocks on the side of your current layer that are normally beyond sight.

See Chapter 8 for more building techniques and ideas.

**A Resourceful Guide to the Creative Mode Inventory**

Minecraft’s resources fall into several primary categories. Some of them are a natural early focus as you improve your position from those gathered for first-night survival; others become more important as you get further through the game, gear up for your exploration of The Nether and The End regions, and become more creative with all that Minecraft has to offer. Here’s a quick summary of the different categories. You can view all possible tools and resources by opening your inventory in Creative mode, as shown in Figure 3.10. The categories that follow correspond to the tabs running across the upper and lower sections of the Creative mode inventory.

![Creative mode inventory](image)

**FIGURE 3.10** Creative mode inventory provides access to the full set of resources and tools.
**TIP**

Turn On Cheats

Turn on Cheats when you start a new world to quickly jump between different gameplay modes. Type `/gamemmode creative` and `/gamemode survival` to move between the main types.

- **Building Blocks**—Building blocks are used, as you might expect, for construction, including housing and almost anything else. Build a bridge for your redstone rail. Construct a dam. Elevate a farm above a level that won’t get trampled by mobs, or put up a fence. Build a skyscraper or reconstruct a monument. Minecraft provides a large number of primary blocks—such as cobblestone, gravel, wood, and dirt—that can be harvested directly, but things definitely become more interesting once you start creating secondary types of blocks from primary materials. You can store many items more efficiently (for example, by converting nine gold ingots into a single gold block), and climb more efficiently by crafting stairs instead of jumping up and down blocks on well-travelled routes. Building blocks are, without being too punny, the building blocks of creativity.

- **Decoration Blocks**—Decoration blocks are something of a catchall category. Generally, they are things you can use to make your constructions more interesting. Some of those are just visual, such as carpet, whereas others such as crafting tables, chests, and the bed that keeps you safe at night provide vital functions.

- **Redstone**—Redstone is an almost magical resource. You can use it to build powered circuits, quite complex ones, and then activate pistons to automatically harvest a farm plot, set up traps, open and close doors, and a huge amount more. The limits are set only by your imagination. Redstone is also used to craft powered rail tracks and a range of other useful items such as a compass and clock. See Chapter 9, “Redstone, Rails, and More,” for more information.

- **Transportation**—Transportation is a small category, but one that’s a lot of fun and very useful. It includes powered and unpowered rails, minecarts, a saddle, a boat, and anything else related to moving yourself and other items around. There are enough options there to enable you to build everything from massive transportation systems to incredible roller coasters.

- **Miscellaneous**—Miscellaneous contains a range of useful and obscure items. You’ll find the buckets quite handy for setting up new water and lava sources, and you can use the eggs to spawn most of the mobs, populating a farm and more.

- **Foodstuffs**—Foodstuffs contains the full range of edibles, including the enchanted form of the golden apple, the rarest edible in the game. Take a few of these with you the next
time you think you’ll be in a tight spot, and you may just be able to make it through that moaning zombie horde.

- **Tools**—Tools can be wielded as weapons, but not very effectively. They are, however, great at digging, chopping, hoeing, and setting Nether Portals on fire with the flint and steel. You’ll also find shears for stripping the wool from sheep, a fishing rod, and a few enchanted books that can add special powers to your tools.

- **Combat**—Combat provides your weapons and armor, as well as the remaining enchanted books that relate to combat items.

- **Brewing**—The Brewing tab contains all possible potions and a number of the rarer ingredients required that don’t fit into other categories. Potions are incredibly handy. Caught outside at night? The Potion of Night Vision triples the brightness to almost daylight conditions. You can learn more about brewing in Chapter 10.

- **Materials**—Materials is the final catchall category, along with the miscellaneous and decoration blocks. It differs because it is composed of secondary items that are derived from another action. For example, killing a chicken can drop feathers, and you’ll need those for the fletching on arrows unless you gather them from skeletons. Grow wheat to get bushels that can be used to tame horses, donkeys, and mules.

There are two other tabs on the Creative inventory. In the upper-right corner is a compass icon. This is the search bar. Just click on it and type in the item’s name.

In the lower-right corner is a chest. This is your Survival mode inventory containing any items you were carrying when you switched to Creative mode. (This is empty if you started your world in Creative mode.) You can shift items between the Creative mode inventory and your Survival inventory. Any items you drag down to the quick access bar are common across both inventories. Remove items from your Survival inventory by dragging them down to the square filled with an X.

**The Bottom Line**

Congratulations! You’ve now learned everything you need to know to understand how your character is doing, improve your tools for better longevity, hopefully not get lost on your travels, and create your first mob-proof outdoor shelter.

These are the keys to Minecraft. Just remember to head back to your chest often to store the valuables you’ve gathered, or build other chests further afield.

You might also want to consider building a pillar and platform on top of your new shelter. It can help you survey your terrain and acts as an easy-to-see landmark when you’re out and about. Put some torches on top because mobs can spawn on any platform, no matter how small, and you don’t want to poke your head up through the platform only to discover a creeper on a short fuse.

The next chapter is all downhill—deep into your first mine.
NUMBERS

2x1 ladder descent, mining and, 74

A

A key, 25
activator rails, 189
ads (pop-up), downloading resource packs, 258
Adventure mode, 17
airlocks, building, 36
Allow Cheats setting (Create New World screen), 14
anchor blocks, 166
AND gates, 182-183
animals, 125
  breeding, 126-130
cats, 127
chickens, 127
crafting arrows, 97
  fences, 126
cooking, 61
cows, 127
donkeys, 127, 130-133
farms, 125-128
fences, 126
fish, 62
fishing, 134
food poisoning, 61
herding, 128
horses, 127
  armor and, 132
  jumping with, 132
  leading, 129
  riding, 130-132
  taming, 130-132
hostile mobs and safety, 128
jumping with, 132
leading, 127-129
leather, obtaining, 99
mooshrooms, 127
mules, 127, 130-133
ocelots, 127
pack animals, 133
pigs, 127, 134
raw, eating, 61
resources, animals as, 59, 62
riding, 130-134
sheep and wool, 42-43, 127, 130
squid, 135
taming, 127, 130-132
wolves, 127
anvils
  combining two items with, 209
crafting, 207
enchantments, 209
placement of, 208
renaming items, 209
repairing items, 209
Aqua Affinity enchantment, 206
architectural plans, finding, 140
armor, 94
armor bar (HUD), 48
Armor slots (inventory), 27
crafting
  color, 100
  leather, 99
  recipes, 99-100
  requirements, 98-99
critical hits, 94
damage absorption, 99
enchantments, 205-206
End survival checklist, The, 243
horses and, 132
Nether survival checklist, The, 234
arrows and bows
  arrow slits, building, 157
crafting, 96
End survival checklist, The, 243
fighting, 98
Nether survival checklist, The, 235
skeletons, 88, 96
target practice, 98
attacking. See combat
automated farms, 113
crop selection, 116
harvesting, 115
piston harvesters, 117-118
sticky piston harvesters, 119
sugar cane, 122
water harvesters, 119-122
automatic doors, building, 173-176
awkward potion, 212-213
axes, crafting, 32

B
Bane of Arthropods enchantment, 204
barbeques, building, 146
barricades, building in The Nether, 239
bases
  mining bases, setting up, 81
  underwater bases, mob attacks, 49
basins, 222
BeastsMC multiplayer server, 269
beds
  building, 41-43, 142
  End, The, 242-243
  Nether, The, 242
  spider string, 42
  taking with you, 44
  villages and, 219
  wool, 42-43
bedside tables, building, 142
biomes
  changing, 26
  choosing, 16
  Far Lands or Bust, 16
  islands, first-night survival, 26
  Large Biomes option, 217
  oceans, first-night survival, 26
  pocket edition, 16
  resetting, 26
trees
  first-night survival, 25
  lumberjacking, 26
Xbox 360 Edition, 16
blacksmiths, 220
Blast Protection enchantment, 206
blaze rods
  finding, 234
  Nether, The, 234, 239
  potions, brewing, 210
blazes in The Nether, 241
blaze spawners, 239
blocking
  areas off (mining), 73
  attacks, 95
blocks
  anchor blocks, 166
  building blocks, 67
  cobblestone, 60
    furnace, crafting, 38-39
    huts, building, 64
    Nether survival checklist, The, 234
    powered blocks, 166
  Command Block, 267
  decoration blocks, 67
  diamonds, 52
  floating blocks, 140
  glowstones
    glowstone dust potion, 214
    Nether, The, 238
    underwater, building, 148-150
gold (material type), 51
golden blocks
  Nether survival checklist, The, 235
  planks, crafting, 29
  wood buttons, 162, 166, 173
boats, building, 134
bobbers (fishing), 134
bones
  as resources, 60
  farming, 110
Bonus Chest setting (Create New World screen), 15
books
  crafting, 200
  enchantment tables, 200
  storing enchantments, 202
bookshelves
  building, 145
  casting enchantments, 202
bottles, crafting, 212
bottles, crafting, 212
bows and arrows

arrow slits, building, 157

crafting, 96

End survival checklist, The, 243

fighting, 98

Nether survival checklist, The, 235

skeletons, 88, 96

target practice, 98

branch mines, 79-80

bread, 62

breaking your fall, 75-76

breeding animals, 126-130

brewing. See also building; crafting;
growing

bottles, crafting, 212

brewing stands, building, 212

Creative mode inventory, 68

potions

blaze rods, 210

Nether wart, 209-212

soul sand, 209-211

testing potions, 210

buckets and mining, 70

building, 137-138. See also brewing;
crafting; growing

airlocks, 36

arrow slits, 157

automatic doors, 173-176

barbeques, building, 146

barricades, building in The Nether, 239

beds, 41-43, 142

bedside tables, 142

boats, 134

bookshelves, 145

brewing stands, 212

building blocks, 67

chairs, 141

clocks (wall), 144

crafting tables, 29-30, 35

decoration blocks, 67

dining tables, 142

enchantment tables, 197-201

fireplaces, 146

floors (raised/lowered), 145

fountains, 144

frames (item), 144

grieving, 140

huts, 64-65

item frames, 144

lighting, 64

location, determining, 139, 149

maps (wall), 144

multiplayer rules, 140

Nether Portals, 236

netting, 145

overhangs and spiders, 64

paintings, 144

perimeters

arrow slits, 157

ditches, 153-154

lighting, 155

mobs, 155-157

towers, 155

walls, 157

pits, 155-157

plans, finding, 140

planter boxes, 143

ponds, 144

pools, 144

pressure plates, 156

redstone, 67, 162

resource packs, 138

scale of, 138

security

arrow slits, 157

ditches, 153-154
lighting, 155
mobs, 155-157
perimeters, 153-157
pits, 155-157
pressure plates, 156
towers, 155
walls, 157
shelter, 33-34
doors, 36-37
emergency shelters, 38
heat sources, 37-38
light sources, 37-41
signs, placement of, 141
sites
finding, 63
housing codes, 65
walls, 65
sliding doors, 177-179
tables
bedside tables, 142
crafting tables, 29-30, 35
enchantment tables, 197-201
dining tables, 142
tennis courts, 145
tool enchantments, 206-207
tracks
halfway stations, 192
mobs, protecting tracks from, 192
powered rails, 190
T-junctions, 191
zig zags, 190
trees (fantasy), growing, 144
underwater, 139, 147, 151
Creative mode, 147
doors, 150
enchantments, 153
floating blocks, 140
flooding, 152
island spawn points, 149
ladders, 150
lighting, 148-150
location, 149
oxygen, 150
required equipment, 148-149
security, 153
signs, 150
soft blocks, 148, 152
Survival mode, 148
vandalism, 140
villages, building next to, 139
wall clocks, 144
wall maps, 144
walls, 86, 157
water, building on, 139
butchers, 220
buttons, 162. See also pressure plates
automatic doors, 173
powered blocks, 166
buying Minecraft, 10-11
C
cake, 62
carrots, 105
carts (mine), 185-186
destroying and reusing, 188
hopper minecarts, 187
powered minecarts, 187-188
rails, building, 159
activated rails, 189
detector rails, 164, 189
halfway stations, 192
mobs, protecting tracks from, 192
normal rails, 188
powered rails, 189-190
T-junctions, 191
zig zags, 190
storage minecarts, 187
TNT minecarts, 187-189
trains, minecarts as, 188
underground rails, 188
cats, 127
caves, 222
cave spiders, 88-89
doors, importance of, 85
lighting, 64
mining
creating caves, 69
existing caves, 69
shelter, building, 34
chairs, building, 141
character skins, 251
changing, 252, 255
skin editor websites
Minecraftskins, 253
Novaskin, 254
Skincraft, 253
superhero skins, 262
Steve, 252
charcoal
crafting, 37
furnaces, fueling, 40
chat window (HUD), 50
cheats, 15
Allow Cheats setting (Create New World screen), 14
seeding, 19
spawning, 42
turning on, 67
chests
Bonus Chests setting (Create New World screen), 15
Chest icon (Creative mode inventory), 68
crafting, 54-55
Ender chests, 55, 232, 235
minecarts with chests (storage minecarts), 187
mining and, 81
Nether survival checklist, The, 235
opening, 54
sizes of, 54
trapped chests, 163
chickens, 127
arrows, crafting, 97
fences, 126
children in villages, 218, 221
chopping down trees, 26
circuits
AND gates, 182-183
NOR gates, 182
NOT gates (inverters), 180
OR gates, 181
repeater loops, 184
cliffs
Nether, The, 238
shelter, building, 34
clocks, crafting, 144, 229
closing doors, 36
clothing, dyeing wool, 130
coal
charcoal, crafting, 37
furnaces, fueling, 40
cobblestone, 60
furnace, crafting, 38-39
huts, building, 64
Nether survival checklist, The, 234
powered blocks, 166
cobwebs as netting, 145
cocoa beans, 104-105
color
armor, crafting, 100
dyeing and, 130
combat. See also defenses

armor
  crafting, 98-100
critical hits, 94
damage absorption, 99
arrows and bows
  arrow slits, 157
crafting, 96
End survival checklist, The, 243
fighting, 98
Nether survival checklist, The, 235
skeletons, 88, 96
target practice, 98

combat category (Creative mode inventory), 68
critical hits, 94
creepers, 89-90, 102
critical hits, 94
enchantments, 204-205
Ender Dragon, 246-249
Endermen, 91
hostile mobs, 84
iron golems, 93-94
Peaceful mode, resting via, 57
skeletons, 87-89
slimes, 90-91
snow golems, 92-93
spiders, 86-87
cave spiders, 88-89
spider jockeys, 89
sprinting and, 95
swords
  blocking attacks, 95
crafting, 32, 95
damage, dealing, 95
End survival checklist, The, 243
fighting with, 56
Nether survival checklist, The, 234
zombies, 84-85
zombie pigmen, 91-92
combining items and enchantments with an anvil, 209
Command Block, 267
compare mode (comparators), 170
compasses
  Compass icon (Creative mode inventory), 68
crafting, 61, 227
construction. See building
controls
  A key, 25
directional keys, 25
  D key, 25
  E key, 27
  Esc key, 25
  FN key (Mac OS X), 20
  left-handed options, 21
  list of controls, 19-20
  Q key, 29
  Shift key
    pausing on ladders, 74
    sneaking around hazards, 81
  S key, 25
  W key, 25, 56
cooking, 61
cows, 127
crafting. See also brewing; building; growing
  anvils, 207
  armor
    color, 100
    leather, 99
    recipes, 99-100
    requirements, 98-99
arrows and bows, 96
axes, 32
books, 200
bottles, 212
bowls, 124
bows and arrows, 96
chests, 54-55
clocks, 229
compasses, 61, 227
Crafting grid (inventory), 27
crafting tables, 29-30, 35
furnaces, 38-39
heat sources, 37-38
light sources, 37-41
Minecraft: Xbox 360 edition, 31
multicrafting, 36
pickaxes, 32
planks, 29
shortcuts, 35
shovels, 33
swords, 32, 95
tools
durability, 53
handles, 30-31
torches, 39-41
wool, 42, 43
Create New World screen
Allow Cheats setting, 14
Bonus Chest setting, 15
Generate Structures setting, 14
World Type setting, 14
Creative mode, 17
compass icon, 68
inventory, 66
brewing, 68
building blocks, 67
Chest icon, 68
combat, 68
decoration blocks, 67
foodstuffs, 67
materials, 68
miscellaneous, 67
moving items to Survival mode inventory, 68
redstone, 67
tools, 68
transportation, 67
search bar, 68
underwater, building, 147
creeper, 56
defending against, 102
fighting, 89-90
gunpowder and, 90
swimming and, 90
critical hits (combat), 94
crop farming, 103
automated farms, 113
crop selection, 116
harvesting, 115
piston harvesters, 117-118
sticky piston harvesters, 119
sugar cane, 122
water harvesters, 119-122
bones and, 110
carrots, 105
choosing crops, 103-106
cocoa beans, 104-105
establishing farms
block to crop ratios, 107
bone meal, 110
difficult terrain, 106
fences, 109, 112
growth cycles, 110
harvesting, 112
lighting, 110
location, 106-107
planting, 108
raised beds, 111-112
saving crops, 111
water, 107-108, 112
fences, 104, 109, 112
growth cycles, 110
harvesting, 110-112, 115
lighting and, 104, 110
melons, 105
Minecraft updates and, 107
piston farms, 113
crop selection, 116
harvesting, 115
piston harvesters, 117-118
sticky piston harvesters, 119
sugar cane, 122
water harvesters, 119-122
potatoes, 105
pumpkins, 105
raised beds, 104, 111-112
saving crops, 111
seeds, 103, 108
self-sufficiency, 104
sneaking and, 111
soil, 104
sugar cane, 104-106
automated farms, 122
piston farms, 122
tending farms, 104
underground farms, 104, 123
wheat, 103, 106, 110-112
crosshairs (bows and arrows), targeting with, 98
current (vertical), 178-180
customizing Minecraft
Minecraft launchers, 11
mods, 251
defining, 258
finding, 265
Forge mods, 259-260
installing, 259-260
jar files, 261
Legendary Beasts website, 263
More Explosives website, 262
More Mobs website, 264
multiple mods, using, 258
permanent effects of, 259
REI’s MiniMap website, 263
removing, 260
restoring games, 259
superheroes website, 262
Too Many Items website, 261
zip files, 261
resource packs, 251, 255
Dokucraft, 256-257
downloading and pop-ups, 258
Faithful 32, 257
functionality, 256
installing, 256-257
Ovo2s Rustif, 257
pixels per texture, 257
skins, 251
changing, 255
Minecraftskins website, 253
Novaskin website, 254
Skincraft website, 253
Steve, 252
superheroes, 262
D
D key, 25
damage
absorbing, 99
dealing, swords, 95
dandelions, dyeing with, 130
Dante’s influence on Minecraft, 242
debug screen (HUD), 50-51
decoration blocks, 67
defenses. See also combat
arrow slits, 157
barricades, 239
caves, 85
creeper attacks, 102
detection systems
detector rails, 163-164, 189
pressure plates, 156
tripwires, 163
ditches, 153-154
doors, importance of, 85
emergency shelters, 38
enchantments, 205-206
Ender Dragon, defeating, 246-249
perimeters, 153-157
pits, 155-157
pressure plates, 156
spiders, 86
towers, 155
trapdoors, 172
tunnels, 85
walls, 86, 157
defensive mobs
iron golems, 93-94
snow golems, 92-93
demo version
time span, 7
troubleshooting, 8
desert temples, 223-224
destroying and reusing carts, 188
detection systems
detector rails, 163-164, 189
pressure plates, 156
tripwires, 163
diamonds, 52
difficulty levels, 57
dining tables, building, 142
directional keys, 25
discarding inventory items, 29
ditches, building, 153-155
Dokucraft resource pack, 256-257
donkeys, 127
HUD changes while riding, 50
jumping with, 132
packing, 133
riding, 130-132
taming, 130-132
doors
airlocks, building, 36
as output devices, 172
automatic doors, building, 173-176
caves, 85
installing, 37
iron doors, 36, 235
opening/closing, 36
sliding doors, building, 177-179
trapdoors, 172
tunnels, 85
underwater, building, 150
down, digging straight down, 73
downloading
Minecraft, 10-11
resource packs and pop-ups, 258
dungeons, 225-226
durability
diamond, 52
gold, 51
HUD, viewing stats in, 50
iron, 52
stone, 52
tools

crafting, 53
improving, 51-52
wearing down, 53
wood, 52
dyeing
color, choosing, 130
dandelions and, 130
Lapis Lazuli ore and, 130
squid ink and, 135
wool, 130

E

easy mode and hunger, 58
Easy option (Survival mode), 18
Efficiency enchantment, 207
emeralds, farming, 222
emergencies, 38
enchantments, 195
anvils, crafting enchantments and, 207-209
Aqua Affinity enchantment, 206
armor, 205-206
Bane of Arthropods enchantment, 204
benefits of, 195
Blast Protection enchantment, 206
books, 200-202
bookshelves, 202
casting, 200-202
combining, 209
Efficiency enchantment, 207
enchantment tables
books, 200
casting enchantments, 200-201
obsidian, 197-199
Feather Falling enchantment, 206
Fire Aspect enchantment, 206
Fire Protection enchantment, 206
Flame enchantment, 205
Fortune enchantment, 207
Infinity enchantment, 205
Knockback enchantment, 204
Looting enchantment, 205
methods of gaining, 196
Power enchantment, 205
Projectile Protection enchantment, 206
Protection enchantments, 205-206
Punch enchantment, 205
repairing enchanted items, 201
Respiration enchantment, 153, 206
Sharpness enchantment, 204
Silk Touch enchantment, 207
Smite enchantment, 204
storing, 202
Thorns enchantment, 206
tools, 206-207
Unbreaking enchantment, 207
water affinity, building underwater, 153
weapons, 204-205

End, The, 24, 231
Dante’s influence on, 242
Ender chests, 55, 232, 235
Ender Dragon, 233, 245
defeating, 246-249
egg collecting, 250
Endermen, 91, 246, 249
Ender pearls, 91, 234
End Poem, 250
End Portals, 245
Eyes of Ender, 233-234, 243-245
navigating, 233
silverfish spawners, 245
sleeping in, 242-243
strongholds, finding, 244-245
survival checklist, 243
trading versus fighting, 234
enemies
avoiding, 57
creepers, 56
defending against, 102
fighting, 89-90
gunpowder and, 90
swimming and, 90
Endermen, 91, 246, 249
iron golems, 93-94
Legendary Beasts mod website, 263
More Mobs mod website, 264
Peaceful mode, 57
pursuit mode, 57
skeletons, 56
arrows and, 88, 96
as resources, 60
bones, farming benefits, 110
fighting, 87-88
potions, 215
spider jockeys, 89
wither skeletons, 241
slimes, 56, 90-91
snow golems, 92-93
spawners
blaze spawners, 239
disabling, 223
silverfish spawners, 245
spiders, 56
cave spiders, 88-89
defending against, 86
ditches, crossing, 153
eyes as food, 86
fermented spider eye potions, 214
fighting, 86-87
overhangs and, 64
spider jockeys, 89
string, 42, 86
uses for, 86
walls as defense, 86
zombies, 56
crafting arrows, 97
fighting, 84-85
reinforcements, 85
rotten meat, 85
zombie pigmen, 91-92
equipment
End survival checklist, The, 243
Nether survival checklist, The, 234-235
Esc key, 25
experience bar (HUD), 48
experience points (XP)
earning, 203-204
enchantments, 195, 200
managing, 203-204
exploding minecarts, 187-189
explosives
exploding minecarts, 187-189
More Explosives carts, 262
Eyes of Ender, 91, 233-234, 243-245

F
Faithful 32 resource pack, 257
falling while mining, 73, 75-76
fantasy trees, growing, 144
Far Lands or Bust, 16
farmers, 220
farming, 103
animals
breeding, 126-130
cats, 127
chickens, 126-127

cows, 127

donkeys, 127, 130-133

fences, 126

fish, 62

herding, 128

horses, 127-132

jumping with, 132

leading, 127-129

mobs and safety, 128

mooshrooms, 127

mules, 127, 130-133

ocelots, 127

pack animals, 133

pigs, 127, 134

riding, 130-134

sheep and wool, 42-43, 127, 130

taming, 127, 130-132

wolves, 127

automated farms, 113

crop selection, 116

harvesting, 115

piston harvesters, 117-118

sticky piston harvesters, 119

sugar cane, 122

water harvesters, 119-122

bones and, 110

carrots, 105

choosing crops, 103-106

cocoa beans, 104-105

cooking, 61

establishing farms

animals, 125-128

block to crop ratios, 107

bone meal, 110

difficult terrain, 106

fences, 109, 112

growth cycles, 110

harvesting, 112

lighting, 110

location, 106-107

planting, 108

raised beds, 111-112

saving crops, 111

water, 107-108, 112

fences, 104, 109, 112, 126

growth cycles, 110

harvesting, 110-112, 115

leather, obtaining, 99

lighting and, 104, 110

melons, 105

Minecraft updates and, 107

piston farms, 113

crop selection, 116

harvesting, 115

piston harvesters, 117-118

sticky piston harvesters, 119

sugar cane, 122

water harvesters, 119-122

potatos, 105

pumpkins, 105

raised beds, 104, 111-112

saving crops, 111

seeds, 103, 108

self-sufficiency, 104

sneaking and, 111

soil, 104

sugar cane, 104-106, 122

tending farms, 104

underground farms, 104, 123

wheat, 103, 106, 110-112

Feather Falling enchantment, 206

fences

animals, 126

farming, 104, 109, 112

gates, 172
fermented spider eye potion, 214

fighting

armor

crafting, 98-100
critical hits, 94
damage absorption, 99
arrows and bows

arrow slits, 157
crafting, 96
End survival checklist, The, 243
fighting, 98
Nether survival checklist, The, 235
skeletons, 88, 96
target practice, 98

combat category (Creative mode inventory), 68
critical hits, 94
creepers, 89-90, 102
critical hits, 94
enchantments, 204-205
Ender Dragon, 246-249
Endermen, 91
hostile mobs, 84
iron golems, 93-94
Peaceful mode, resting via, 57
skeletons, 87-89
slimes, 90-91
snow golems, 92-93
spiders, 86-87
cave spiders, 88-89
spider jockeys, 89
sprinting and, 95
swords

blocking attacks, 95
crafting, 32, 95
damage, dealing, 95
End survival checklist, The, 243

fighting with, 56
Nether survival checklist, The, 234
zombies, 84-85
zombie pigmen, 91-92

finding

blaze rods, 234
building sites, 63
End strongholds, The, 244-245
mods, 265
Nether strongholds, 238
villages, 219
Fire Aspect enchantment, 205
fireplaces, building, 146
Fire Protection enchantment, 206
Fire Resistance potion, 213
first night, surviving

building

beds, 41-43
crafting tables, 29-30, 35
furnaces, 38-39
shelter, 33-38

crafting

axes, 32
crafting table, 29-30, 35
heat sources, 37-38
light sources, 37-41
pickaxes, 32
shovels, 33
swords, 32
tool handles, 30-31
torches, 39-41

first-day tasks, 23-24
inventory, checking, 27-29
island biomes, 26
ocean biomes, 26
perimeter structures as protection, 36
trees, 25-26
wood, gathering, 25-26
fishing, 62, 134
Flame enchantment, 205
flint and steel
  mining flint, quick mining tips, 97
  Nether Portals, 236
  Nether survival checklist, The, 235
floating blocks, 140
flooding, building underwater, 152
floors (raised/lowered), building, 145
flying while leading animals, 129
FN key, 20
food
  animals, 59, 62
  bowls, crafting, 124
  bread, 62
  brewing, 68
  cake, 62
  cooking, 61
  End survival checklist, The, 243
  fishing, 62, 134
foodstuffs category (Creative mode inventory), 67
harvesting, 59, 62
health and, 58
hunger, 49, 58
meat (rotten) and zombies, 85
mining and, 70
mushroom stew, creating, 124
Nether survival checklist, The, 235
poisoning, 61
raw, eating, 61
spider eyes as food, 86
vegetables, 59
Forge mods, 259-260
fortresses (Nether), 227
  finding, 238
  survival tips, 239-240
  Fortune enchantment, 207
  fountains, building, 144
  frames (item), building, 144
  free Minecraft demo version
  time span, 7
  troubleshooting, 8
  furnaces
  crafting, 38-39
  fueling, 40
  minecarts with furnaces (powered minecarts), 187-188

G

games (new)
  biomes
    choosing, 16
    Far Lands or Bust, 16
  game modes
    Adventure mode, 17
    Creative mode, 17
    Hardcore mode, 17
    selecting, 14
    Survival mode, 16-18
  Nether options, configuring, The, 238
  pausing, 25
  setup, configuring, 14-15
  worlds
    choosing world generation style, 16
    creating, 14-15
    naming, 14
  gates
    AND gates, 182-183
    as output devices, 172
    NOR gates, 182
    NOT gates (inverters), 180
    OR gates, 181
Generate Structures setting

Create New World screen, 14
More World Options, 217
ghasts, 237-240
gifting Minecraft, 11
glowstones
glowstone dust potion, 214
Nether, The, 238
underwater, building, 148-150
gold (material type), 51
golems
iron golems, 93-94
snow golems, 92-93
villages and, 219
gravel
arrows, crafting, 97
mining, 97
Nether survival checklist, The, 234
griefing, 140
growing plants. See also brewing; building;
crafting
establishing farms, 108
fantasy trees, 144
hedges, 143
indoor plants, 142
planter boxes, building, 143
trees (fantasy), 144
growth cycles (farming), 110
gunpowder
creepers and, 90
potions, 214

Hard option (Survival mode), 18
Harming potion, 215
harvesting, 59, 110-112
piston farms, 115
wheat, 62
Healing potion, 213
health
food and, 58
health bar (HUD), 48
hunger and, 58
heat sources, crafting, 37-38
hedges, growing, 143
herding animals, 128
Herobrine, 252
hills, crafting shelter from, 34
Hive multiplayer server, The, 268
hoppers, 193-194
as output devices, 173
hopper minecarts, 187
horses, 127
armor and, 132
Horse Update edition. See PC edition
HUD changes while riding, 50
jumping with, 132
leading, 129
leather, obtaining, 99
riding, 130-132
taming, 130-132
hostile mobs. See mobs
hosting
LAN parties, 265-266
multiplayer servers, 265, 269-271
houses, building
building blocks, 67
decoration blocks, 67
housing codes, 65

halfway stations, 192
handles (tool), crafting, 30-31
Hardcore mode, 17
huts, 64-65
overhangs and spiders, 64
redstone, 67
HUD (Heads Up Display), 47
armor bar, 48
chat window, 50
debug screen, 50-51
durability stats, viewing, 50
experience bar, 48
health bar, 48
hiding, 50
hunger bar, 49, 58
inventory quick access, 49
oxygen bar, 48
riding animals, HUD changes while riding, 50
hunger
dying from, 63
Easy mode, 58
food
  bread, 62
  cake, 62
  cooking, 61
  food poisoning, 61
health and, 58
hunger bar (HUD), 49, 58
Normal difficulty and, 58
raw meat, eating, 61
saturation, 58
sprinting and, 57-58
Survival mode, 58
huts, 224
building, 64-65
overhangs and spiders, 64
witch huts, 224

hydration
  farming, 107-108, 112
  permanent watering holes, digging, 109
  water harvesters, 119-122

indoor plants, growing, 142
Infinity enchantment, 205
ink (squid), 135
installing
doors, 37
mods, 259-260
resource packs, 256-257
inventory
  Armor slots, 27
  Crafting grid, 27
  Creative mode, 66
  brewing, 68
  building blocks, 67
  Chest icon, 68
  combat, 68
  compass icon, 68
  decoration blocks, 67
  foodstuffs, 67
  materials, 68
  miscellaneous, 67
  moving items to Survival mode inventory, 68
  redstone, 67
  search bar, 68
  tools, 68
  transportation, 67
discarding items from, 29
evenly distributing items, 29
first-night survival, 27-29
inventory quick access (HUD), 49
Inventory slots, 28
main storage, moving quick access grid items to, 29
opening, 27, 30
picking up items, 29
placing items in inventory, 29
quick access grid (inventory), 28-29, 73, 235
removing items from, 29
stacking items, 28
storage area, 28
Survival mode, moving items to Creative mode, 68
inverters (NOT gates), 180
Invisibility potion, 213-215
iron, 52
    anvils, crafting, 207
    Nether survival checklist, The, 235
iron doors, 36, 235
iron golems
    fighting, 93-94
    villages and, 219
islands
    first-night survival, 26
    spawn points, building underwater, 149
item frames, building, 144

J - K
jack-o’-lanterns, 235-237
.jar files, modes as, 261
joining
    LAN parties, 265-266
    Minecraft Realms, 268
    multiplayer servers, 265-268
jumping, 132
jungle temples, 224-225

Knockback enchantments, 204

L
ladders
    2x1 ladder descent, mining and, 74
End survival checklist, The, 243
pausing on, 74
underwater, building, 150
lamps
    bedside tables and, 142
    redstone lamps, 171
LAN parties (multiplayer games), 265-266
lanterns
    Nether, The, 235-237
    perimeters, 155
    underwater, building, 150
Lapis Lazuli and dyeing, 130
Large Biomes option (structures), 217
launching Minecraft
    custom launchers, 11
    logins, 13
    passwords, 12
    usernames, 12
lava pools
    furnaces, fueling, 40
    mining and, 73, 79
    Nether, The, 238
    obsidian, mining, 197-199
leading animals, 127-129
leather, obtaining, 99
left-handed control options, 21
Legendary Beasts mod website, 263
levers, 162, 166
librarians, 220
lighting
    bedside tables and, 142
caves and tunnels, 64
crafting, 39-41
farming and, 104, 110
light sources, crafting, 37-41
mining, 70, 73
Nether, The, 235-239
perimeters, 155
redstone torches, 161, 167, 178-180
underwater, building, 148-150
Linux, downloading Minecraft, 11
logins, 13
loops (repeater), 184
Looting enchantment, 205
lost, avoid getting
compasses, crafting, 61, 227
debug screen (HUD), 50
maps
numbering maps, 229
REI’s MiniMap mod website, 263
villages, 219
wall maps, 144
zooming in/out maps, 229
lowered floors, building, 145
lumberjacking, 26

M

Mac OSX
downloading Minecraft, 11
FN key, 20
magma cubes, 241
main storage (inventory), moving quick access grid Items to, 29
maps
compasses, crafting, 227
numbering maps, 229
REI’s MiniMap mod website, 263
villages, 219
wall maps, 144
zooming in/out maps, 229
materials category (Creative mode inventory), 68
material strength. See durability
meat (rotten) and zombies, 85
melons, 105
minecarts, 185-186
destroying and reusing, 188
hopper minecarts, 187
powered minecarts, 187-188
rails, building, 159
activated rails, 189
detector rails, 164, 189
halfway stations, 192
mobs, protecting tracks from, 192
normal rails, 188
powered rails, 189-190
T-junctions, 191
zig zags, 190
storage minecarts, 187
TNT minecarts, 187-189
trains, minecarts as, 188
underground rails, 188
Minecraft
cheats, 15
controls
A key, 25
directional keys, 25
D key, 25
E key, 27
Esc key, 25
FN key (Mac OSX), 20
left-handed options, 21
list of controls, 19-20
Q key, 29
Shift key, 74, 81
S key, 25
W key, 25, 56
Minecraft demo version
time span, 7
troubleshooting, 8
downloading, 10-11
game modes
Adventure mode, 17
Creative mode, 17
Hardcore mode, 17
selecting, 14
Survival mode, 16-18
gifting, 11
launching
custom launchers, 11
logins, 13
passwords, 12
usernames, 12
logins, 13
Nether options, configuring, The, 238
new games
choosing biomes, 16
choosing world generation style, 16
configuring setup, 14-15
creating worlds, 14-15
naming worlds, 14
selecting game mode, 14
pausing, 25, 74
PC edition, 8, 11
Pocket edition, 8
biomes, 16
crafting in, 31
hiding HUD, 50
purchasing, 10-11
Raspberry Pi edition, 8
updates, 107
Xbox 360 Edition, 8
biomes, 16
crafting in, 31
hiding HUD, 50
Xbox One Edition, 8
Minecraft Realms, joining, 268
mining
2x1 ladder descent, 74
abandoned mineshafts, 226-227
bases, setting up, 81
branch mines, 79-80
breaking your fall, 75-76
buckets, 70
caves
cave spiders, 88-89
creating caves, 69
existing caves, 69
chests, placing in mines, 81
chunks, 82
cobblestone, 60
do’s and don’ts, 73-74
down, digging straight down, 73
falling and, 73-76
farming underground, 104, 123
flint, quick mining tips, 97
food, 70
gravel, quick mining tips, 97
ladders, 74
lava pools, 73, 79
lighting, 73
mobs and, 81
netherrack, 237
obsidian, 70, 197-199
ore layers, 71-72
pickaxes, 70
quick access bar, keeping blocks in, 73
safety and, 81
sleep, 81
sneaking around hazards, 81
staging points, 81
staircases
  spiral staircases, 77-78
  straight staircases, 76-77
strategies for starting, 69
tools, required equipment list, 70
torches, 70, 73
unlit areas, 73
up, digging straight up, 73
way out, knowing, 73
wood blocks and, 70
miscellaneous category (Creative mode
inventory), 67
mobs
  avoiding, 57
  character vulnerability and inventory
  checks, 30
creepers, 56
    defending against, 102
    fighting, 89-90
    gunpowder and, 90
    swimming and, 90
defining, 18
ditches, crossing, 153-155
employing, 155-157
Endermen, 91, 246, 249
farming and animals, 128
inventory checks and character vulner-
ability, 30
iron golems, 93-94
Legendary Beasts mod website, 263
mining, 81
More Mobs mod website, 264
Nether, The, 236-241
passive mobs
  animals as, 59-62
  squid, 135
Peaceful mode, 57
pursuit mode, 57
security
  ditches, 155
  pits, 155-157
  tunnels, 155
  water, 154
skeletons, 56
  arrows and, 88, 96
  fighting, 87-88
  spider jockeys, 89
sleep, 81
slimes, 56, 90-91
snow golems, 92-93
spawners
  blaze spawners, 239
  disabling, 223
  silverfish spawners, 245
spiders, 56
  cave spiders, 88-89
  crossing ditches, 153
  defending against, 86
  eyes as food, 86
  fermented spider eye potions, 214
  fighting, 86-87
  overhangs and, 64
  spider jockeys, 89
  string, 42, 86
  uses for, 86
  walls as defense, 86
tracks, protecting from attack, 192
tunnels, 155
types of, 18
underwater bases, 49
water, 154
zombies, 56
  arrows, crafting, 97
  fighting, 84-85
  reinforcements, 85
  rotten meat, 85
  zombie pigmen, 91-92
mods, 251
  defining, 258
  finding, 265
Forge mods, 259-260
installing, 259-260
.jar files, 261
Legendary Beasts website, 263
More Explosives website, 262
More Mobs website, 264
multiple mods, using, 258
permanent effects of, 259
REI’s MiniMap website, 263
removing, 260
restoring games, 259
superheroes website, 262
Too Many Items website, 261
.zip files, 261
Mojang accounts
  passwords, 10
  registering, 8-10
  security, 9
monsters
  avoiding, 57
blaze spawners, 239
creepers, 56
  defending against, 102
  fighting, 89-90
gunpowder and, 90
  swimming and, 90
Endermen, 91, 246, 249
iron golems, 93-94
Legendary Beasts mod website, 263
More Mobs mod website, 264
Peaceful mode, 57
pursuit mode, 57
  skeletons, 56
  arrows and, 88, 96
  as resources, 60
bones, farming benefits, 110
fighting, 87-88
potions, 215
spider jockeys, 89
wither skeletons, 241
slimes, 56, 90-91
snow golems, 92-93
spiders, 56
cave spiders, 88-89
defending against, 86
eyes as food, 86
fighting, 86-87
overhangs and, 64
spider jockeys, 89
string, 86
uses for, 86
walls as defense, 86
zombies, 56
crafting arrows, 97
fighting, 84-85
reinforcements, 85
rotten meat, 85
zombie pigmen, 91-92
mooshrooms, 127
More Explosives mod website, 262
More Mobs mod website, 264
moving inventory items between main storage and quick access grid, 29
mules, 127
jumping with, 132
packing, 133
riding, 130-132
taming, 130-132
multicrafting, 36
multiplayer games
  Command Block, 267
LAN parties, 265-266
Minecraft Realms, joining, 268
multiplayer servers
  BeastsMC, 269
  Hive, The, 268
  hosting, 265, 269-271
  joining, 265-268
  Phanatic, 269
  Shotbow, 268
  Supercraft Brothers, 268
  superheroes mod website, 262
singleplayer games versus, 13
whitelisted (trusted) players, 140
mushrooms
  mushroom stew, 124
  Nether, The, 238
music, creating via note blocks, 173

navigating
  compasses, crafting, 61, 227
debug screen (HUD), 50
End, The, 233
maps
  numbering maps, 229
  REI's MiniMap mod website, 263
  villages, 219
  wall maps, 144
  zooming in/out maps, 229
Minecraft controls
  FN key (Mac OSX), 20
  left-handed options, 21
  list of controls, 19-20
  Nether, The, 233
negative effect potions, 214-215
negative structures, 222
Nether, The, 24, 231
  barricades, building, 239
  blaze rods, 234, 239
blazes, 241
blaze spawners, 239
cliffs, 238
Dante’s influence on, 242
Ender chests, 232
Ender pearls, 234
fortresses
  finding, 238
  survival tips, 239-240
game options, configuring, 238
ghasts, 237-240
glowstone, 238
jack-o'-lanterns, 237
lanterns, 237
lava pools, 238
lighting, 237-239
magma cubes, 241
mobs, 236-241
mushrooms, 238
navigating, 233
netherbrick, 238-239
Nether Portal, 236-237
Nether quartz, 238
Nether wart, 209-212, 239
Overworld size comparison to, 242
sleeping in, 242
Sneak key (Left Shift), 238
soul sand, 238
stairs, 237
survival checklist, 234-235
torches, 237-239
tunnels, 237
water, 235
wither skeletons, 241
netting, 145
new games

biomes
  choosing, 16
  Far Lands or Bust, 16

game modes
  Adventure mode, 17
  Creative mode, 17
  Hardcore mode, 17
  selecting, 14
  Survival mode, 16-18

Nether options, configuring, The, 238
pausing, 25
setup, configuring, 14-15
worlds
  choosing world generation style, 16
  creating, 14-15
  naming, 14

night (first), surviving
building
  beds, 41-43
  crafting table, 29-30, 35
  furnaces, 38-39
  shelter, 33-38
crafting
  axes, 32
  crafting table, 29-30, 35
  heat sources, 37-38
  light sources, 37-41
  pickaxes, 32
  shovels, 33
  swords, 32
  tool handles, 30-31
  torches, 39-41
first-day tasks, 23-24
inventory, checking, 27-29
island biomes, 26
ocean biomes, 26
perimeter structures as protection, 36

trees
  gathering wood, 25-26
  lumberjacking, 26

Night Vision potion, 213
NOR gates, 182
Normal difficulty and hunger, 58
Normal option (Survival mode), 18
note blocks, creating music, 173
NOT gates (inverters), 180

O

obsidian
  enchantment tables, 197-199
  End survival checklist, The, 243
  mining, 70, 197-199
  Nether Portals, building, 236
  Nether survival checklist, The, 235
  oceans, first-night survival, 26
  ocelots (cats), 127
online resources, Far Lands or Bust, 16
opening
  doors, 36
  inventory, 27, 30
OR gates, 181
OSX (Mac)
  FN key, 20
  Minecraft, downloading, 11
overhangs and spiders, 64
Overworld, 24, 242
Ovo’s Rustic resource pack, 257
oxygen bar (HUD), 48
oxygen, building underwater, 150

P

pack animals, 133
paintings, 144
passive mobs
  animals as, 59-62
  squid, 135
passwords, 12
pausing games, 25, 74
PC edition (Minecraft), 8, 11
Peaceful mode, 57
Peaceful option (Survival mode), 17
pearls (Ender), 91, 234
perimeters, building, 36
  arrow slits, 157
ditches, 153-154
fences, 104, 109, 112, 126
lighting, 155
mobs, 155-157
towers, 155
walls, 157
Phanatic multiplayer server, 269
pickaxes
  crafting, 32
  mining and, 70
  Nether survival checklist, The, 234
picking-up items in inventory, 29
pigmen (zombie), 91-92, 236-237, 240
pigs, 127, 134
pillar jumping, 38, 65
piston farms, 113
  crop selection, 116
  harvesting, 115
  piston harvesters, 117-118
  sticky piston harvesters, 119
  sugar cane, 122
  water harvesters, 119-122
pistons
  as output devices, 172
  sliding doors, 178
pits, building, 155-157
pixels per texture (resource packs), 257
planks (wood), crafting, 29
plants, growing
  establishing farms, 108
  fantasy trees, 144
  hedges, 143
  indoor plants, 142
  planter boxes, building, 143
  trees (fantasy), 144
Pocket edition (Minecraft), 8
  biomes, 16
  crafting in, 31
  hiding HUD, 50
poison
  food poisoning, 61
  Poison potion, 215
  rotting meat and zombies, 85
  spider eyes, 86
ponds, 144
pools, 144
pop-ups, downloading resource packs, 258
portals
  End Portals, 245
  Nether Portal, 236, 237
positive effect potions, 213-215
potatios, 105
potions
  awkward potion, 212-213
  brewing, 209
    blaze rossa, 210
    building brewing stands, 212
    Nether wart, 209-212
    soul sand, 209-211
    testing potions, 210
  End survival checklist, The, 243
  enhancing, 214-215
fermented spider eye potion, 214
Fire Resistance potion, 21
glowstone dust potion, 214
gunpowder, 214
Harming potion, 215
Healing potion, 213
Invisibility potion, 213-215
negative effect potions, 214-215
Night Vision potion, 213
Poison potion, 215
positive effect potions, 213-215
redstone dust potion, 214
Regeneration potion, 213
skeletons, 215
Slowness potion, 215
Splash potion, 214
Swiftness potion, 213
testing, 210
Weakness potion, 215
zombies, 215
powered blocks, 166-167
powered minecarts, 187-188
powered rails, 172, 189-190
Power enchantment, 205
power sources, 160, 170
powered blocks, 166-167
redstone, 162
powered rails, 189-190
redstone wire, properties of, 164
repeaters, 168-169
torches, 161, 167
repeaters, 168-169
pressure plates, 162. See also buttons
automatic doors, 176
detector rails, 189
minecart rails, 163
pits, 156
priests, 220
Projectile Protection enchantment, 206
Protection enchantments, 205-206
pumpkins, 105
Punch enchantment, 205
purchasing Minecraft, 10-11
pursuit mode, mobs and, 57
PvP (player versus player). See multiplayer games
Q - R
Q key, 29
quick access grid (inventory), 28-29, 73, 235
rails, 159
activated rails, 189
detector rails, 163-164, 189
halfway stations, 192
minecarts, 185-186
destroying and reusing, 188
hopper minecarts, 187
powered minecarts, 187-188
storage minecarts, 187
TNT minecarts, 187-189
trains, 188
mobs, protecting rails from, 192
normal rails, 188
powered rails, 172, 189-190
pressure plates, 163
T-junctions, 191
trains, minecarts as, 188
underground rails, 188
zig zags, 190
rain, fishing in, 134
raised beds (farming), 104, 111-112
raised floors, building, 145
Raspberry Pi Edition (Minecraft), 8
ravines, 222
Realms (Minecraft), joining, 268
redstone, 67, 159-160, 170
automated farms, building, 116
piston farms, creating, 116
powered rails, 189-190
redstone blocks, 162
redstone dust potion, 214
redstone lamps, 171
redstone torches, 161, 167, 178-180
redstone wire, 164
repeaters, 168-169, 174
sticky piston harvesters, building, 119
Regeneration potion, 213
registering Mojang accounts, 8
  passwords, 10
  security questions, 9
REI’s MiniMap mod website, 263
removing
  inventory items, 29
  mods, 260
renaming items, anvils and, 209
repairing
  anvils and, 209
  enchantment items, 201
repeater loops, 184
repeaters, 168-169, 174
resetting biomes, 26
resource packs, 138, 251, 255
  Dokucraft, 256-257
downloading and pop-ups, 258
Faithful 32, 257
functionality, 256
installing, 256-257
Ovo2s Rustic, 257
pixels per texture, 257
respawning, 18, 63
  cheats, 42
  spawn points, building underwater, 149
Respiration enchantment, 153, 206
resting, Peaceful mode, 57
restoring games, 259
reusing destroyed minecarts, 188
riding animals, 50, 130-132
rotten meat and zombies, 85
running, 56
  combat and, 95
effects of, 57-58
  hunger and, 57-58
S
S key, 25
safety, mining and, 81
saturation, hunger and, 58
saving crops, 111
search bar (Creative mode inventory), 68
security
  arrow slits, building, 157
ditches, building, 153-154
Minecraft passwords, 12
mobs
  ditches, 155
tunnels, 155
water, 154
Mojang accounts
  passwords, 10
  security questions, 9
perimeters, building
  arrow slits, 157
ditches, 153-154
lighting, 155
mobs, 155-157

towers, 155

towers, building, 155

der under Building, 153

walls, building, 157

walls, building, 157

water, 154

seeds

farming, 103

planting, 108

servers (multiplayer)

BeastsMC, 269

Hive, The, 268

hosting, 265, 269-271

joining, 265-268

Phanatic, 269

Shotbow, 268

Supercraft Brothers, 268

whitelisted (trusted) players, 140

setup

Mojang accounts, 8-10

new games, 14-15

Sharpness enchantment, 204

sheep and wool, 42-43, 127, 130

shelter

building, 33-34

building blocks, 67

caves, 34

cliffs, 34

decoration blocks, 67

doors, 36-37

emergency shelters, 38

heat sources, crafting, 37-38

hills, 34

housing codes, 65

huts, building, 64-65

light sources, crafting, 37-41

overhangs and spiders, 64

pillar jumping, 38

redstone, 67

tunneling, 34

Shift key

ladders, pausing on, 74

sneaking around hazards, 81

Shotbow multiplayer server, 268

shovels, 33, 234

signals, 160

buttons, 162

automatic doors, 173

powered blocks, 166

detector rails, 164, 189

levers, 162, 166

pressure plates

automatic doors, 176

detector rails, 189

minecart rails, 163

weighted pressure plates, 162

redstone torches, 161, 167

tripwires, 163

signs

placement of, 141

underwater, building, 150

Silk Touch enchantment, 207

silverfish spawners, 245

singleplayer games

Adventure mode, 17

Creative mode, 17

Hardcore mode, 17

multiplayer games versus, 13
sprinting, 56
around hazards, 81
farming and, 111
Sneak key (Left Shift), 238
snow blocks, 235
snow golems, 92-93
soft blocks, building underwater, 148, 152
soil, farming, 104
soul sand
brewing potions, 209-211
Nether, The, 238
spawners
blaze spawners, 239
disabling, 223
silverfish spawners, 245
spawning, 18, 63
cheats, 42
spawn points, building underwater, 149
spiders, 56
cave spiders, 88-89
defending against, 86
ditches, crossing, 153
eyes
as food, 86
fermented spider eye potions, 214
fighting, 86-87
overhangs and, 64
spider jockeys, 89
string, 42, 86
uses for, 86
walls as defense, 86
spiral staircases and mining, 77-78
Splash potion, 214
sprinting, 56
combat and, 95
effects of, 57-58
hunger and, 57-58

Survival mode, 16

Easy option, 18
Hard option, 18
Normal option, 18
Peaceful option, 17

skeletons, 56
arrows and, 88, 96
as resources, 60
bones, farming benefits, 110
fighting, 87-88
potions, 215
spider jockeys, 89
wither skeletons, 241

skins, 251
changing, 252-255
skin editor websites
Minecraftskins, 253
Novaskin, 254
Skincraft, 253
superhero skins, 262
Steve, 252

sleep
beds
building, 41-43
taking with you, 44
End, The, 242-243
mining and, 81
mobs and, 81
Nether, The, 242
time and, 42
villages and, 219
sliding doors, building, 177-179
slimes, 56, 90-91
Slowness potion, 215
Smite enchantment, 204
squid, 135
stacking inventory items, 28
staging points, mining and, 81
staircases and mining
  Nether, The, 237
  spiral staircases, 77-78
  straight staircases, mining and, 76-77
stations (halfway), 192
steel and flint
  Nether Portals, 236
  Nether survival checklist, The, 235
Steve (character skin), 252
stew, 124
sticky piston harvesters, 119
stone buttons, 162
  automatic doors, 173
  powered blocks, 166
stone (material type), 52
storage
  storage area (inventory), 28
  chests, 54-55
  enchantments, storing in books, 202
  storage minecarts, 187
straight staircases and mining, 76-77
Strength potion, 213
string (spiders), 42, 86
strongholds, 226, 244-245
structures
  basins, 222
caverns, 222
desert temples, 223-224
dungeons, 225-226
End strongholds, The, 244-245
Generate Structures setting
  Create New World screen, 14
  More World Options, 217
jungle temples, 224-225
Large Biomes option, 217
mineshafts (abandoned), 226-227
negative structures, 222
Nether fortresses, 227
  finding, 238
  survival tips, 239-240
ravines, 222
spawners, disabling, 223
strongholds, 226
villages
  appearances of, 218
  beds, 219
  blacksmiths, 220
  butchers, 220
  children, 218, 221
  commonality of, 217
  farmers, 220
  finding, 219
  interacting with inhabitants, 218-221
  iron golems and, 219
  librarians, 220
  priests, 220
  sleeping in, 219
  trading with inhabitants, 219-221
  uses of, 218
  zombies and, 218-219, 222
witch huts, 224
subscription services, 268
subtract mode (comparators), 170
sugar cane, 106
  automated farms, 122
  growing, 104
  piston farms, 122
Supercraft Brothers multiplayer server, 268
superhero mods website, 262
survival

first night survival
axes, 32
beds, 41-43
crafting tables, 29-30, 35
first-day tasks, 23-24
furnaces, 38-39
heat sources, 37-38
inventory, checking, 27-29
island biomes, 26
light sources, 37-41
ocean biomes, 26
perimeter structures as protection, 36
pickaxes, 32
shelter, 33-38
shovels, 33
swords, 32
torch, 39-41
trees, 25-26
wood, gathering, 25-26
Survival mode, 16
Easy option, 18
Hard option, 18
hunger, 58
moving items to Creative mode inventory, 68
Normal option, 18
Peaceful option, 17
underwater, building, 148
Swiftness potion, 213
swimming
creepers and, 90
swimming pools, 144
switches, 114, 142, 161-162
swords
blocking attacks, 95
crafting, 32, 95
damage, dealing, 95
End survival checklist, The, 243
fighting with, 56
Nether survival checklist, The, 234

T

tables
bedside tables, 142
crafting tables, 29-30, 35
dining tables, 142
enchantment tables, 197
books, 200
casting enchantments, 200-201
obsidian, 197-199
taming animals, 127, 130-132
teleporting players into LAN parties, 266
temperatures

desert temples, 223-224
jungle temples, 224-225
tennis courts, building, 145
testing potions, 210
texture packs. See resource packs
textures, pixels per (resource packs), 257
Thorns enchantment, 206
time, sleeping and, 42
T-junctions, building tracks, 191
TNT minecarts, 187, 189
tools
axes, 32
durability, 53
enchantments, 206-207
End survival checklist, The, 243
handles, 30-31
improving, 51-52
mining, required equipment list, 70
Nether survival checklist, The, 234
pickaxes, 32, 70
shovels, 33
tools category (Creative mode inventory), 68
wearing down, 53
Too Many Items mod website, 261
torches
bedside tables and, 142
crafting, 39-41
farming and lighting, 104, 110
mining, 70, 73
Nether survival checklist, The, 235
Nether, The, 237-239
perimeters, 155
redstone torches, 161
powered blocks, 167
vertical current, 178-180
underwater, building, 148-150
towers, building, 155
tracks, 159
activated rails, 189
detector rails, 163-164, 189
halfway stations, 192
minecarts, 185-186
destroying and reusing, 188
hopper minecarts, 187
powered minecarts, 187-188
storage minecarts, 187
TNT minecarts, 187-189
trains, 188
mobs, protecting rails from, 192
normal rails, 188
powered rails, 172, 189-190
pressure plates, 163
T-junctions, 191
trains, minecarts as, 188
underground rails, 188
zig zags, 190
trapdoors, 172
trapped chests, 163
treasure
abandoned mineshafts, 226-227
desert temples, 223-224
dungeons, 225-226
emeralds, farming, 222
Ender pearls, 234
jungle temples, 224-225
Nether fortresses, 227
spawners, disabling, 223
strongholds, 226
witch huts, 224
trees
biomes, 25
fantasy trees, growing, 144
first-night survival, 25
lumberjacking, 26
tripwires, 163
trusted (whitelisted) players, 140
walls

abandoned mineshafts, 226-227
ditches and, 155
doors, 85
lighting, 64
Nether, The, 237
underground rails, 188

unbreaking enchantment, 207
underground
  abandoned mineshafts, 226-227
dungeons, 225-226
rails, 188
strongholds, 226
underwater, building, 151
  Creative mode, 147
doors, 150
enchancements, 153
flooding, 152
island spawn points, 149
ladders, 150
lighting, 148-150
location, 149
mob attacks, 49
oxygen, 150
required equipment, 148-149
security, 153
signs, 150
soft blocks, 148, 152
Survival mode, 148
up, digging straight down, 73
usernames (Minecraft), 12

vandalism, 140
vegetables, harvesting, 59
vertical current, 178-180
video cards (Minecraft PC edition), 8
Video Settings menu (game options),
  configuring The Nether options, 238
villages
  appearances of, 218
  beds, 219
  blacksmiths, 220
  building next to, 139
  butchers, 220
  children, 218, 221
  commonality of, 217
  farmers, 220
  finding, 219
  interacting with inhabitants, 218-221
  iron golems and, 219
  librarians, 220
  priests, 220
  sleeping in, 219
  trading with inhabitants, 219-221
  uses of, 218
  wells, 222
  zombies and, 218-219, 222

W

W key, 25, 56
walls
  building, 65, 157
  clocks, 144
  maps, 144
  spider-proof walls, 86
water

Aqua Affinity enchantment, 206
boats, building, 134
farming, 107-108, 112
fishing, 134
fountains, 144
Nether, The, 235
obsidian, mining, 197-199
permanent watering holes, digging, 109
ponds, 144
pools, 144
security, 154
underwater, building, 151
Creative mode, 147
doors, 150
enchantments, 153
floating blocks, 139-140
flooding, 152
island spawn points, 149
ladders, 150
lighting, 148-150
location, 149
oxygen, 150
required equipment, 148-149
security, 153
signs, 150
soft blocks, 148, 152
Survival mode, 148
water harvesters, 119-122
wells, 222
Weakness potion, 215
weapons, 94
arrows and bows
arrow slits, 157
crafting, 96
End survival checklist, The, 243
fighting, 98

Nether survival checklist, The, 235
skeletons, 88, 96
target practice, 98
critical hits, 94
enchantments, 204-205
Ender Dragon, defeating, 246-249
End survival checklist, The, 243
Nether survival checklist, The, 234-235
Peaceful mode, resting via, 57
swords
blocking attacks, 95
crafting, 32, 95
damage, 95
End survival checklist, The, 243
fighting with, 56
Nether survival checklist, The, 234
web resources
Far Lands or Bust, 16
mods
finding, 265
Legendary Beasts website, 263
More Explosives website, 262
More Mobs website, 264
REI’s MiniMap website, 263
superheroes website, 262
Too Many Items website, 261
multiplayer server websites
BeastsMC, 269
Hive, The, 268
Phanatic, 269
Shotbow, 268
Supercraft Brothers, 268
skin editors
Minecraftskins, 253
Novaskin, 254
Skincraft, 253
superheroes, 262
weighted pressure plates, 162
wells, 222
wheat, 106, 222
farming, 103
growth cycles, 110
harvesting, 62, 110-112
whitelisted (trusted) players, 140
wither huts, 224
wither skeletons, 241
wolves, 127
wood blocks, 52
gathering, first-night survival, 25-26
mining and, 70
Nether survival checklist, The, 235
planks, crafting, 29
wood buttons, 162
  automatic doors, 173
  powered blocks, 166
wool
crafting, 42-43
dyeing, 130
spider string instead of, 42
worlds
biomes
  choosing, 16
  Far Lands or Bust, 16
  pocket edition, 16
  Xbox 360 Edition, 16
creating, 14-15
naming, 14
Overworld, 24
world generation style, choosing, 16
World Type setting (Create New World screen), 14

X

Xbox 360 Edition (Minecraft), 8
  biomes, 16
crafting in, 31
  HUD, hiding, 50
Xbox One Edition (Minecraft), 8
XP (experience points)
  earning, 203-204
  enchantments, 195, 200
  managing, 203-204

Y - Z

YouTube, finding architectural plans, 140

zig-zag tracks, building, 190
.zip files, mods as, 261
zombies, 56
  arrows, crafting, 97
  fighting, 84-85
  potions, 215
  reinforcements, 85
  rotten meat, 85
  villages and, 218-219, 222
  wells, 222
  zombie pigmen
    fighting, 91-92
    Nether, The, 236-237, 240
zooming in/out maps, 229