



## 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.)



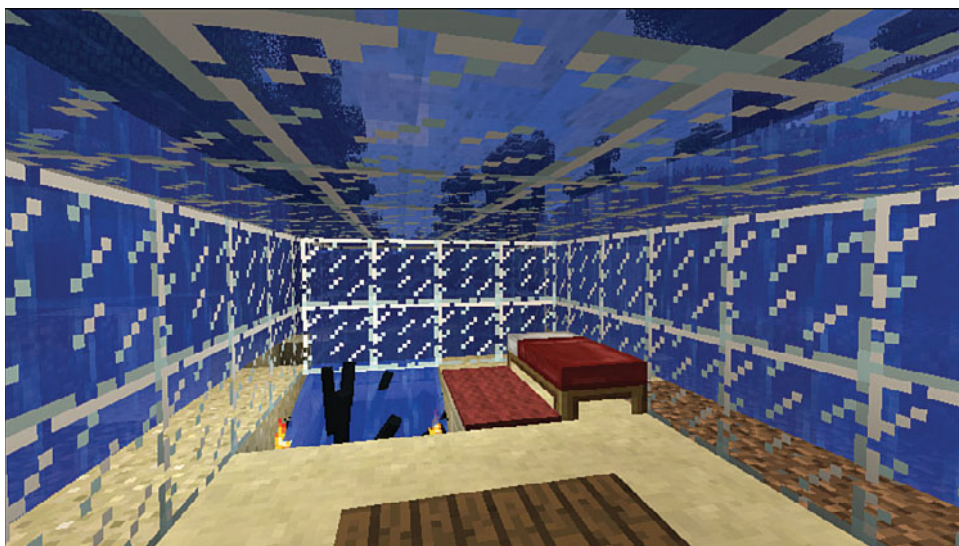
**FIGURE 3.1** The HUD provides key status indications. Health is all important, but low hunger also leads to low health, so keep a close eye on both.

- |                   |                           |
|-------------------|---------------------------|
| 1. Armor bar      | 4. Oxygen bar             |
| 2. Health bar     | 5. Hunger bar             |
| 3. Experience 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.

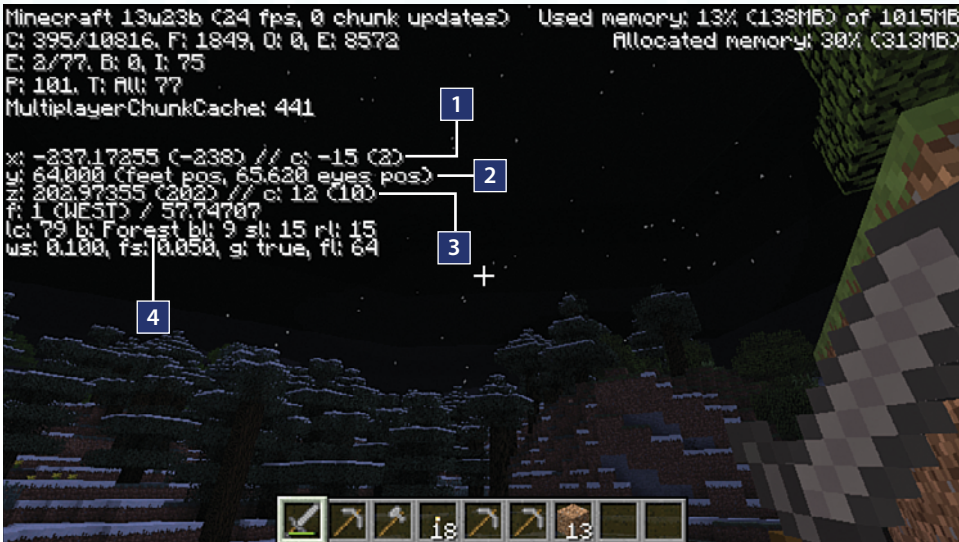
Toggle the entire HUD display off and on by pressing **F1**. Press **F3** with the HUD turned on to view a much more detailed HUD debug screen (see Figure 3.3.)

## 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.



- **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.



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



- 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.