CACAO CAFÉ

Pages 2-3

Dark, towering clouds loom large and low over a small village near the edge of a tropical rainforest. A girl stops her chores, looks up at the sky, and smiles. It is May, and the rainy season is about to begin.

Drip, drop. Plink, plop. The rain starts slowly, but it soon picks up speed. As a heavy downpour showers the earth, the girl runs inside and waits for the storm to end.

Pages 4-5

Rain drops fall through the rainforest canopy and land on the leaves of a cacao tree. Caterpillars cling tightly to the tree's slender branches. They wait for the rain to stop, so they can go back to feeding.

Rain rolls along the edges of the tree's large, floppy leaves and slowly drips down. Before it soaks into the soil, it ricochets off old cacao pods scattered on the forest floor.

Pages 6-7

A few days later, a wave of pale blossoms gently unfolds. A beetle zooms in and nibbles at the flowers' delicate petals.

A hungry spider lies in wait just a few inches away. When the moment is right, it lunges forward and seizes its prey.

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Pages 8-9

A female midge darts up from an old cacao pod. Before she can lay her eggs, she needs a hearty meal of rich, nutritious pollen.

To find food, the midge crawls deep inside a cacao blossom. As she backs out, powdery pollen dusts her body. When she lands on another cacao flower, some of the pollen falls off.

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The next day, the cacao flowers wither and die. A stingless bee swoops in to steal the last bits of pollen.

Just as the bee finishes its meal, an Ameiva lizard skitters up the cacao tree's trunk. It snatches the bee and swallows it whole.

A curious girl spots the lizard. She picks it up gently and takes a closer look. Then she puts it down.

Pages 12-13

As sunlight softly filters through the canopy, tiny pods appear along the cacao's trunk. Above them, new red leaves sprout from the tree's branches.

A dozen leaf-cutter ants busily trim the tops of the leaves and sever the stems. Then they hoist the leaves high and begin the long march back to their nest.

A coffin fly lands on one of the ants and lays eggs on its head. When the eggs hatch, the larvae will burrow into the ant's head and eat its brain.

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As the months pass, the cacao pods slowly grow. By September, they look like small, lumpy footballs.

Aphids hatch from shiny, black eggs. They punch holes in the cacao's trunk and slurp the sugary juices.

A hoverfly larva grabs the aphids, one at a time. It lifts them into the air and sucks them dry.

An ant battles the hoverfly larva with all its might. Then it laps up the sweet, sticky treat that only aphids make.

Pages 16-17

Over the next few weeks, the cacao pods slowly turn deep red.

On a hot, humid morning, the leaves above the cacao tree quiver then shake. Suddenly, a large, lanky spider monkey drops down. It checks the pods to see when they will be ripe. Then it climbs back into the canopy and swings deeper into the forest.

Pages 18-19

On a warm October night, the harvest moon rises over a small village near the edge of a tropical rainforest.

As a girl finishes her evening chores, she looks up and spots a leaf-nosed bat. It flits across the sky and darts into the nearby woods.

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The bat quickly finds what it's been looking for—a small cluster of cacao trees. It lands on a branch and climbs down to the closest pod.

The bat patiently gnaws at a ripe red fruit until it breaks open. Then it slurps up the lemony pulp and spits out the bitter seeds.

Pages 22-23

As dawn's first rays stream down, the girl awakens. After breakfast, she and her family grab their tools and head for the forest. Like the bat, they are seeking cacao.

Thwack! A machete lobs a deep red pod off a cacao tree. Then another and another. After a busy morning, the family collects the pods and carries them home.

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Thud! A wooden mallet breaks a pod open. The girl scoops out the sticky insides and tosses them into a box. Soon the pulpy pile is as tall as she is.

As the pulp rots and drains away, the seeds go through many changes. They get harder and darker. They lose their bitterness and begin to smell wonderful.

The girl spreads the hard, dark seeds on trays so they can dry in the sun. In a few days, a truck will take the cocoa beans to a factory, and they will be made into chocolate.

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Back in the cacao grove, a few more pods have ripened.

A squirrel dashes up a tree and tugs a pod loose. It scurries to the ground, carrying its prize. Then it gnaws a hole in the pod and pulls out the pulp. As the squirrel dashes through the forest, it sucks on the gooey treat, spitting out seeds as it goes.

Pages 28-29

One of the seeds lands in a rich, moist pile of rotting leaf litter. Its shell cracks open, and a tiny root pushes down into the soil. Then a slender shoot stretches up toward the sun.

As time passes, the cacao tree will continue to grow. And one day, it will produce pods of its own.

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The Cacao Café

Like most plants, the cacao tree is at the base of a complex food chain. Caterpillars and leaf-cutter ants eat the tree's leaves, while beetles dine on its flowers. Midges and

stingless bees feed on cacao pollen, and aphids suck the sap. Spiders, hoverfly larva, lizards, and other predators come to cacao trees to hunt the plant eaters.

Cacao trees need animals just as much as animals need cacao trees. The trees can't make seeds or fruits unless midges carry pollen from flower to flower. And they depend on monkeys, squirrels, and bats to remove seeds from their pods and scatter them on the ground.

Humans are part of the food chain too. We remove the pods and use the beans to make one of our favorite treats—chocolate. So the next time you dive into a bowl of chocolate ice cream or take a bite of a brownie, think of all the creatures that make these delicious desserts possible.

The Secrets of Growing Cacao

Cacao trees grow naturally in tropical rainforests throughout Central and South America. But most of the chocolate we eat today comes from large plantations located in tropical areas around the world.

Cacao trees begin to produce flowers and fruit when they are 3 or 4 years old, and they may continue to be productive for 60 years. Cacao flowers and fruits grow from the trunk of the tree. The flowers can bloom any time of year, but the biggest burst comes at the beginning of the rainy season. After growing for 4 to 5 months, the pods take another month to ripen. Then they are ready to harvest. Each cacao pod contains 30 to 40 seeds, and 10 to 12 pods are needed to make a single pound of chocolate.

When cacao trees grow on plantations, only 3 of every 1,000 flowers produces a fruit. Planting cacao in neat rows with clean open spaces in between may make life easier for people, but not for midges. These little insects survive best in shady, humid rainforests full of damp leaf litter.

Recent experiments have shown that when cacao trees are planted in small groves near the edge of a rainforest, they produce many more pods. Saving rainforests may be the best way to protect the future of our favorite treat.

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