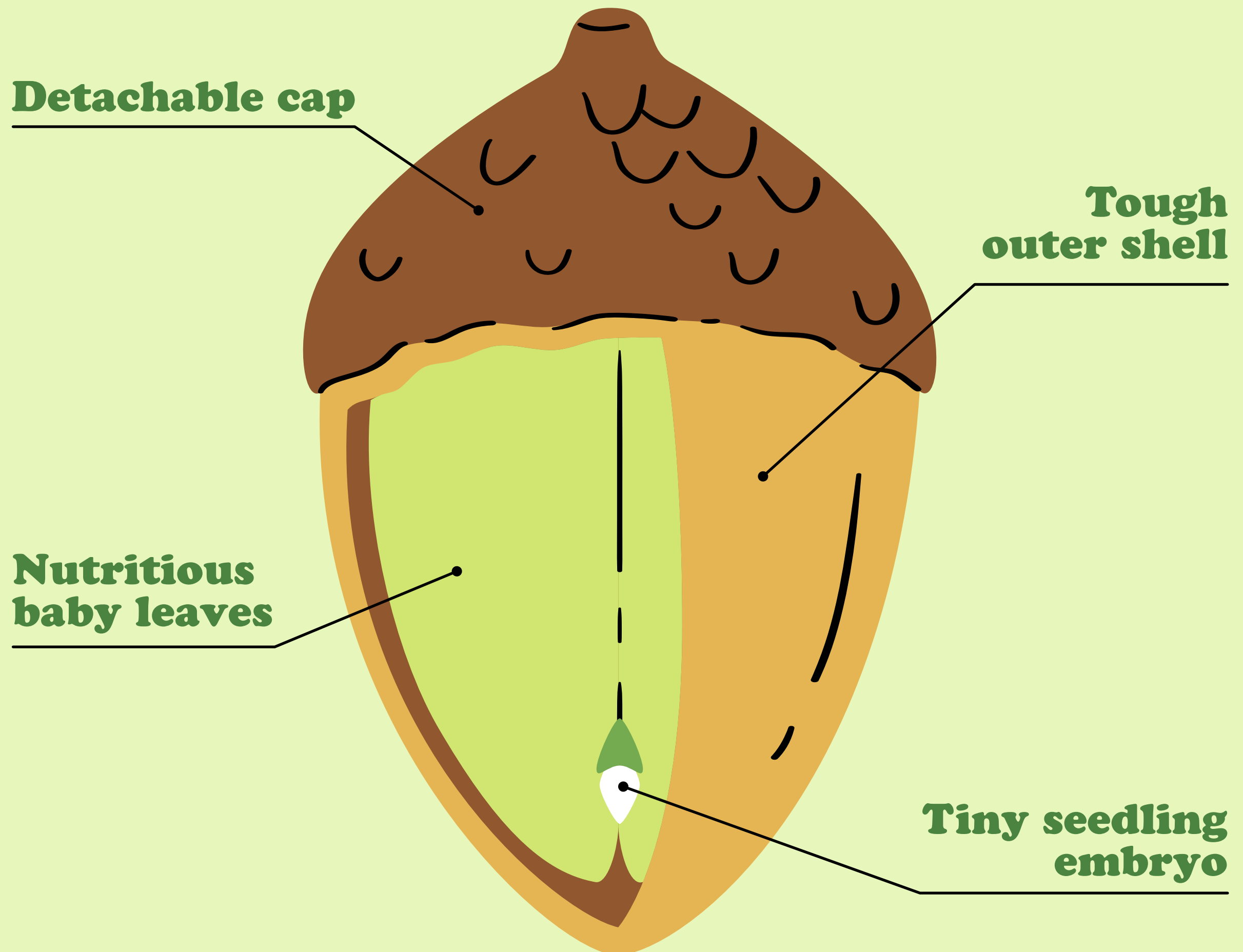


Anatomy of an Acorn



TreePeople

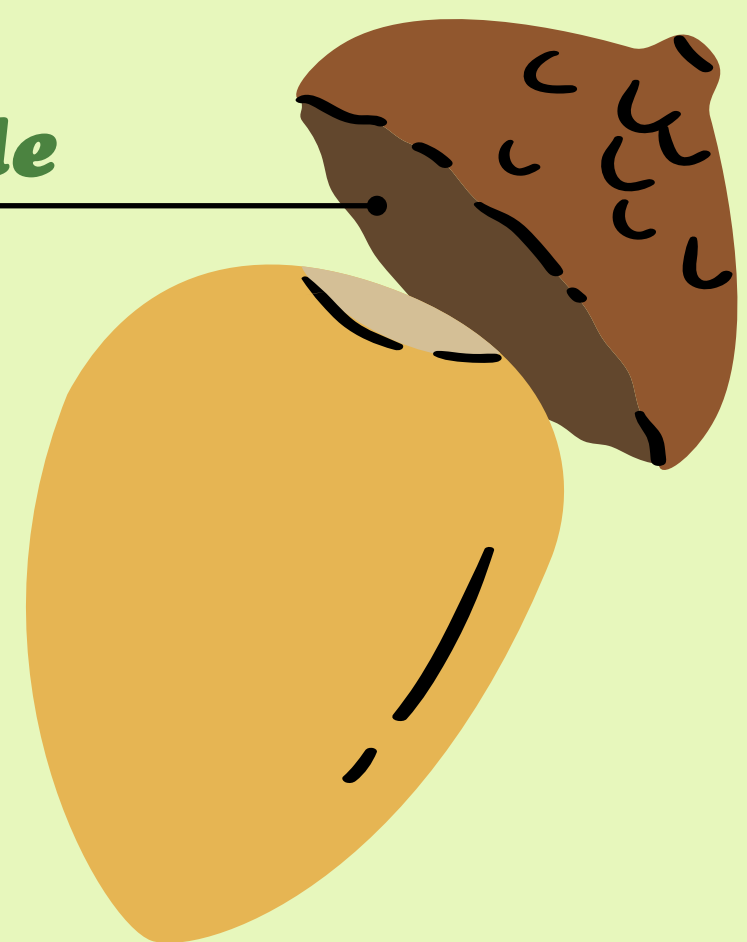


The Cap

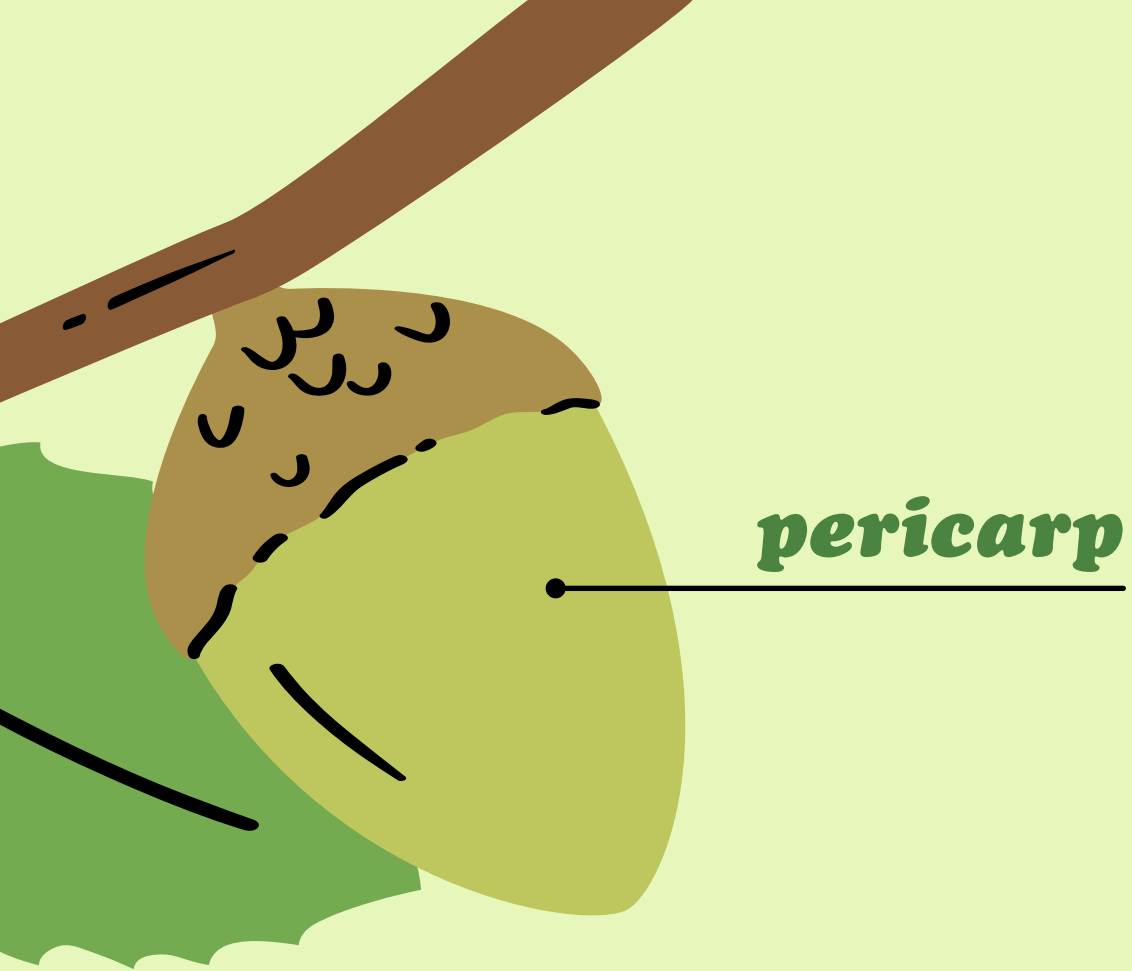
Like the oak trees they grow on, acorns come in a wide variety of shapes and sizes. But typically, one of their defining features is the detachable “cap”—or **cupule**—perched at the apex of the oblong seed. These tiny toppers connect green acorns to the tree’s branches as they develop throughout the summer and then release the seeds in late summer and fall as they ripen and turn brown.



cupule



TreePeople



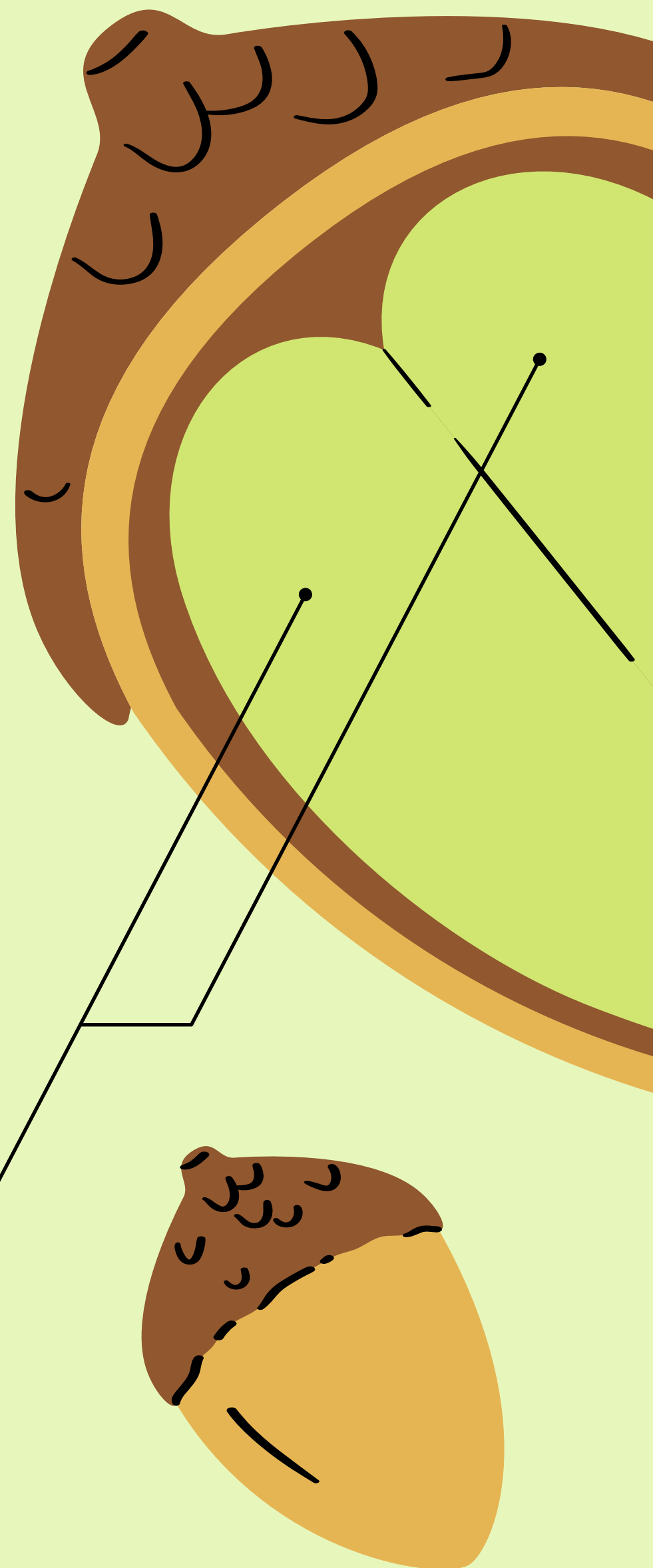
The Shell

Acorns have a hard outer shell—or **pericarp**—that protects the delicate oak embryo inside. However, that doesn't stop many birds and mammals from eating them. Thankfully, these critters pay the trees back by helping with seed dispersal. The pericarps of some acorns—especially those of red oaks like the coast live oak—have high levels of bitter tannins, which encourages animals to cache them away for the winter as the tannins decline. While some of those seeds are recovered and eaten, others are left to sprout.

The Food Source

Inside the acorn, two structures called **cotyledons**—or “seed leaves”—provide food for the tiny acorn embryo as it begins its life. These fatty energy reserves help the sapling send out its first roots, and continue to offer sustenance until it is able to grow several leaves and can create its own food via photosynthesis. The nutrient-packed cotyledons are also what makes these seeds such a treasured food source for wildlife.

cotyledons



TreePeople

The Embryo

At the very center of the acorn, the **radicle** and **plumule** lie in wait, ready to become the roots and leaves of a budding oak tree. Once the seed is in the soil, the **radicle**—or embryonic root—is the first part of the seedling to emerge from the pointed end of the acorn, anchoring the seedling in the ground and helping it to absorb water and nutrients. Once the root is established, the **plumule**—or embryonic shoot—emerges from the same point. Eventually, it will transform into the stem and leaves of the plant—and hopefully, one day, into a mighty oak.

