Peter Pan has taken to sitting on the window sill at the Darling family home in London, so that he can listen to Mrs. Darling telling bedtime stories to her children, Wendy, John and Michael. He is never usually seen, but one night, Mrs. Darling spots him and he has to make a quick exit. In his haste, he leaves his shadow behind. Peter returns to the house to try to find it, but Wendy catches him and helps him to re-attach the shadow. As they talk, Peter realizes that she knows almost as many bedtime stories by heart as her mother does and invites her back to his home in Never Land to take care of him and the Lost Boys, a group of orphan boys who are his companions. Wendy agrees to go on the condition that her brothers are allowed to go as well.

The trip to Never Land is eventful and the Darlings' arrival almost disastrous when Wendy is targeted by one of the Lost Boys who thinks she is a bird. Peter brings the other children to Mermaids' Lagoon, because they have learned that Princess Tiger Lily is being held captive there by Captain Hook, an evil pirate. They free Tiger Lily and overcome the pirate gang.

Although Wendy is enjoying their adventures, she also misses home and decides that she ought to take her brothers back to London. She also invites the Lost Boys, suggesting that the Darlings will surely adopt them. Before they can begin the return journey, however, Captain Hook and his pirates capture them, unbeknownst to Peter. Hook also tries to poison Peter by slipping poison into his medicine, but Tinker Bell, his fairy companion, tells him about the kidnapping, and takes the medicine herself to prevent him from drinking.

Peter goes to the pirate ship and mimics the ticking sound of the crocodile that ate Hook's hand. He sets the Lost Boys free, but the pirates hear them making a noise and come to investigate. Peter defeats them and has an epic battle with Hook. Hook falls into the mouth of the crocodile.

When they arrive at the Darling residence, Mr. and Mrs. Darling are overjoyed to see Wendy, Michael, and John, and happily agree to adopt the Lost Boys. When Peter comes, Mrs. Darling offers to adopt him too, but Peter wants to return to Never Land. He promises Wendy that every spring he will return to see her, and she will travel to Never Land for a week to help him with spring cleaning. He is left somewhat sad that each year she grows older, but he remains the same age forever.