Old Major, the old boar on the Manor Farm, summons the animals on the farm together for a meeting, during which he refers to humans as "enemies" and teaches the animals a revolutionary song called "Beasts of England". When Major dies, two young pigs, Snowball and Napoleon, assume command and consider it a duty to prepare for the Rebellion. The animals revolt and drive the drunken and irresponsible farmer Mr. Jones from the farm, renaming it "Animal Farm". They adopt the Seven Commandments of Animalism, the most important of which is, "All animals are equal."

Snowball teaches the animals to read and write, while Napoleon educates young puppies on the principles of Animalism. Food is plentiful, and the farm runs smoothly. The pigs elevate themselves to positions of leadership and set aside special food items, ostensibly for their personal health.

Some time later, several men attack Animal Farm. Jones and his men are making an attempt to recapture the farm, aided by several other farmers who are terrified of similar animal revolts. Snowball and the animals, who are hiding in ambush, defeat the men by launching a surprise attack as soon as they enter the farmyard. Snowball's popularity soars, and this event is proclaimed "The Battle of the Cowshed". It is celebrated annually with the firing of a gun, on the anniversary of the Revolution.

Napoleon and Snowball vie for pre-eminence. When Snowball announces his plans to modernize the farm by building a windmill, Napoleon has his dogs chase Snowball away and declares himself leader.

Napoleon enacts changes to the governance structure of the farm, replacing meetings with a committee of pigs who will run the farm. Through a young pig named Squealer, Napoleon claims credit for the windmill idea. The animals work harder with the promise of easier lives with the windmill. When the animals find the windmill collapsed after a violent storm, Napoleon and Squealer convince the animals that Snowball is trying to sabotage their project. Once Snowball becomes a scapegoat, Napoleon begins to purge the farm with his dogs, killing animals he accuses of consorting with his old rival. When some animals recall the Battle of the Cowshed, Napoleon (who was nowhere to be found during the battle) frequently smears Snowball as a collaborator of Jones', while falsely representing himself as the hero of the battle. "Beasts of England" is replaced with an anthem glorifying Napoleon, who appears to be adopting the lifestyle of a man. The animals remain convinced that they are better off than they were under Mr. Jones.

Mr Frederick, one of the neighbouring farmers, attacks the farm, using blasting powder to blow up the restored windmill. Though the animals win the battle, they do so at great cost, as many, including Boxer the workhorse, are wounded. Despite his injuries, Boxer continues working harder and harder, until he collapses while working on the windmill. Napoleon sends for a van to take Boxer to the veterinary surgeon, explaining that better care can be given there. Benjamin, the cynical donkey who "could read as well as any pig",[9] notices that the van belongs to a knacker and attempts a futile rescue. Squealer quickly assures the animals that the van had been purchased from the knacker by an animal hospital, and the previous owner's signboard had not been repainted. In a subsequent report, Squealer reports sadly to the animals that Boxer died peacefully at the animal hospital; the pigs hold a festival one day after Boxer's death to further praise the glories of Animal Farm and have the animals work harder by taking on Boxer's ways. However, the truth was that Napoleon had engineered the sale of Boxer to the knacker, allowing him and his inner circle to acquire money to buy whisky for themselves. (In 1940s England, one way for farms to make money was to sell large animals to a knacker, who would kill the animal and boil its remains into animal glue.)

Years pass, and the windmill is rebuilt along with construction of another windmill, which makes the farm a good amount of income. However, the ideals which Snowball discussed, including stalls with electric lighting, heating and running water are forgotten, with Napoleon advocating that the happiest animals live simple lives. In addition to Boxer, many of the animals who participated in the Revolution are dead, as is Farmer Jones, who died in another part of England. The pigs start to resemble humans, as they walk upright, carry whips, and wear clothes. The Seven Commandments are abridged to a single phrase: "All animals are equal but some animals are more equal than others". Napoleon holds a dinner party for the pigs and local farmers, with whom he celebrates a new alliance. He abolishes the practice of the revolutionary traditions and restores the name "The Manor Farm". As the animals look from pigs to humans, they realise they can no longer distinguish between the two.