Why is it cold in winter and dark so early?

Brrr! Why is winter so cold, and dark so early?



Why?

1. **The Earth leans.**
   The Earth does not stand straight up. It leans a little to one side, like a tipped spinning top. For part of the year, our half leans toward the Sun. That's summer. For the other part, our half leans away. That's winter!
2. **Low, slanted sunshine.**
   In winter, sunshine comes in low and slanted, like a tipped flashlight. The same sunshine spreads over more ground, so each spot gets less warmth.
3. **Short days.**
   The Sun comes up late and goes down early. So it gets dark before dinner, and there are fewer hours of sunshine to warm things up.

Color Sunny too!



Try it! The flashlight test

You need: a grown-up, a flashlight and paper

1. Shine a flashlight on paper, straight down.
2. Now tip it.
3. Which spot is brighter?

What happened? Straight down, you get a small, bright spot. Tipped, the same light spreads out into a big, dim spot.

Video + more questions:
whywhywhykids.com/winter

scan with a grown-up