

Position vs. Time

For each short story below, draw a **distance vs. time graph** that matches the description. The distance is always measured from the starting point. Label axes clearly and indicate important points (rests, turns, slopes). No numerical calculations are needed — just accurate qualitative graphing.

1. A child walks steadily away from home at a constant speed for 10 minutes.
2. A runner stands still at the starting line for a short time, then jogs forward at a constant pace.
3. A bicyclist rides forward at a steady speed, stops to rest halfway, then continues at the same steady speed.
4. A dog walks forward at a uniform speed, then slows to a stop (gradual deceleration).
5. A car starts from rest, accelerates forward steadily, then keeps moving at the new constant speed.
6. A student walks quickly toward school, realizes they forgot their homework and stands still to think, then runs back home.
7. A sprinter accelerates quickly at the start, holds top speed for a while, then gradually slows down to a stop.
8. A bus drives steadily forward, waits at a stop, then continues at a slower constant speed.
9. A person hikes up a hill slowly (steep slope → small speed), rests at the top (flat), then runs down quickly (steeper slope).
10. A car pulls out of a driveway: it accelerates forward, brakes to a stop at a sign, waits, then accelerates again more gently.
11. A toy car is pushed forward: it speeds up at first, slows down on its own until it stops, then is pushed again faster than before.
12. A train starts from the station, accelerates steadily, cruises at high speed, brakes smoothly to a stop at the next station, and waits there.
13. A jogger runs forward at a constant speed, turns around after a rest, and jogs back toward the start at the same steady pace.
14. A roller coaster climbs slowly at first (shallow slope), accelerates steeply downhill (curved section), levels out and travels forward at constant speed, then brakes to a stop.
15. A person drives to a store: they accelerate away from home, travel at a steady speed, realize they forgot their wallet, stop, then drive back home at a faster steady speed.
16. A boat moves away from the dock at steady speed, slows gradually to a stop in mid-lake, drifts backward slowly (reverse motion), then accelerates back toward the dock.