Spec ref: 4.5.4

KEY FACTS

★ Auxin: produced in shoot tip, promotes cell elongation in shoots

★ Phototropism: light → auxin moves to shaded side → shaded side elongates more → shoot curves TO light

★ Gravitropism: auxin INHIBITS growth in roots (opposite to shoots) → root curves DOWN

★ Gibberellins: promote seed germination and stem elongation

★ Ethene: promotes fruit ripening — used commercially

★ Commercial auxin uses: rooting powder, selective weedkillers

KEY TERMS

Auxin	Plant hormone from shoot tip — promotes cell elongation in shoots, inhibits in roots
Phototropism	Growth response to light — positive = grows towards light
Gravitropism	Growth response to gravity — roots positively gravitropic
Ethene	Gaseous hormone promoting fruit ripening

■ EXAM TIP: Auxin in SHOOTS: promotes growth. Auxin in ROOTS: inhibits growth. This opposite effect causes both phototropism and gravitropism. Most students get the direction of auxin movement wrong — it moves AWAY from light.