📿 Pop Bead Photosynthesis

Biology A · Unit 2 · Level 2



Name: _____

A4 Pop bead photosynthesis: build CO2 and water from beads, split water in the light reactions, build glucose in the Calvin cycle.

🧺 Bead kit

- ☐ ⚫ **black** carbon (C)
- ☐ 🔴 **red** oxygen (O)
- ☐ ⚪ **white** hydrogen (H)
- ☐ 🃏 **4 cards** water, atmosphere, light reactions, Calvin cycle

🌱 Steps: check each box when you finish

1. 📿 **Build** 6 water (H2O) on the water card and 6 CO2 on the atmosphere card. ☐
2. ☀️ **Light reactions**: move water to the light card, shake it (light energy), split into H and O. ☐
3. 🫧 **Join** the O atoms into O2. Put them on the atmosphere card. ☐
4. 🔄 **Calvin cycle**: move the H atoms and the 6 CO2 to the Calvin cycle card. ☐
5. 🍬 **Build** one glucose (6 C, 12 H, 6 O) and the leftover O into O2. ☐
6. 🧮 **Count**: same atoms at the start and end? ☐

🔄 System diagram

Energy input	Matter inputs	Matter outputs	Energy output

Word bank: **light** · **carbon dioxide** · **water** · **glucose** · **oxygen** · **chemical energy**