Biology A · Unit 8 · Level 2 (modified)

Final Review



TODAY'S PLAN

- 🧪 Science skills
- 🐋 Orcas
- ☀️ Photosynthesis + biofuel
- 🍎 Digestion, respiration, diabetes
- 🦴 Fossils

Review · 5 minutes

Quick Review



🏁 The final covers **all** units.

📖 Use your notes, vocabulary cards, and games to study.

❓ Which unit do you want to review most?

Words to Know

Words to Know



Goggles

Wear them any time there are chemicals, heat, or glass.



Hypothesis

A testable guess: If… then… because…



Orca

Southern Residents eat Chinook salmon and face food, toxin, and noise threats.



Biomagnification

Toxins get more concentrated up the food chain.

Words to Know

More Words to Know



☀️ **Photosynthesis**: CO2 + water + light → glucose + oxygen.

⛽ **Biofuel**: A renewable fuel made from living things, like algae oil.

🍞 **Carbohydrate**: Sugars and starches, made of glucose.

🫁 **Respiration**: Glucose + oxygen → CO2 + water + energy (ATP).

Learn

Science Skills

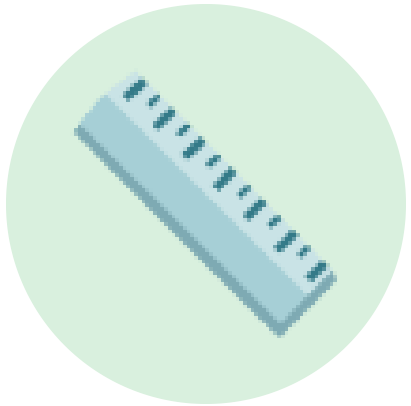


🥽 Goggles for chemicals, heat, glass. Report every accident.

🤔 Hypothesis: If… then… because…

🔀 Independent = what you change; dependent = what you measure.

🃏 Check 1 of 4



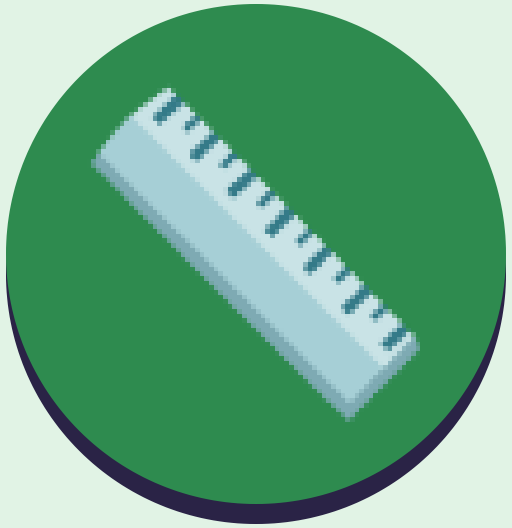
The dependent variable is…

Hold up 1, 2, or 3:

1️⃣ What you change

2️⃣ What you measure

3️⃣ What stays the same



What you measure

You measure the dependent variable.

Learn

Orcas & the Salish Sea

🐋 Southern Residents (J, K, L pods) eat Chinook salmon.

☠️ PCBs biomagnify and are stored in blubber.

🚤 Noise blocks echolocation.



🃏 Check 2 of 4



Biomagnification means…

Hold up 1, 2, or 3:

1️⃣ Toxins disappear

2️⃣ Only plants get toxins

3️⃣ Toxins concentrate up the food chain



Toxins concentrate up the food chain

Top predators carry the most.

Compare

Photosynthesis vs Respiration



Photosynthesis



CO_2 + water + light
→ glucose + oxygen
In chloroplasts

Respiration



Glucose + oxygen
→ CO_2 + water + ATP
In mitochondria

Learn

Biofuel & Energy



⛽ Algae make oil (lipids) → biodiesel, a **renewable** fuel.

🔥 Exothermic reactions release heat; ❄️ endothermic absorb heat.

🔄 The carbon cycle moves carbon between air, living things, and fuels.

🃏 Check 3 of 4



Which fuel is renewable?

Hold up 1, 2, or 3:

1️⃣ Biodiesel from algae

2️⃣ Coal

3️⃣ Oil from the ground



Biodiesel from algae

Algae can be regrown.

Learn

Food, Breathing & Diabetes



🍞 Carbs → glucose; 🍗 proteins → amino acids; 🧈 lipids → fatty acids + glycerol.

🔑 **Insulin** lets glucose into cells (homeostasis).

🩸 Type 1: body makes no insulin. Type 2: cells don't respond well.

Learn

Fossils & Deep Time

🟫 Fast burial in fine sediment → fossil.

⬇️ Deeper layers are older.

🌍 Earth ≈ 4.6 billion years; humans are very recent.



🃏 Check 4 of 4



Insulin…

Hold up 1, 2, or 3:

1️⃣ Breaks bones

2️⃣ Makes oxygen

3️⃣ Lets glucose into cells

✅ Answer · Card 4 of 4



Lets glucose into cells

Insulin is the key.

Wrap-Up

Recap



Skills

safety + variables



Orcas

food, toxins, noise



Energy

photosynthesis ↔ respiration



Fossils

deeper = older

Wrap-Up

Exit Ticket



1️⃣ Write one fact from each unit.

2️⃣ Which unit needs more study?

3️⃣ Make one flash card for that unit.