

Insect Metamorphosis

Chrysalis Conservatory with Hatchling

Learning target

Compare complete and incomplete insect metamorphosis.



Before you begin

Use the reference page and discussion prompts on their own, or open the optional browser adventure. No earlier lesson or physical kit is required.

For online play: use an internet-connected current browser with local storage enabled. Read the three-part Gemling briefing, answer the quick check, and apply the evidence at three checkpoints. Retry feedback supports review; results are not a secure test or gradebook.

Use for teacher-led review, science centers or partner practice. Independent readers may need support with the vocabulary below. The design target is grades 3-5; choose support based on the learner.

Vocabulary and concepts to discuss

Egg-larva-pupa-adult; egg-nymph-adult; different insect pathways

Open Chrysalis Conservatory - direct lesson link

Scan the QR code or use the clickable link. This guide is usable offline; the adventure runs on an external educational website.



Insect Metamorphosis - key ideas

1. The first clues

Complete metamorphosis in insects includes egg, larva, pupa and adult. A butterfly follows this pattern.

2. How the clues connect

Incomplete metamorphosis in insects includes egg, nymph and adult, without a pupal stage. A grasshopper follows this pattern.

3. Our evidence record

Our two records both begin with eggs and end with adults. The butterfly record includes a pupa; the grasshopper record does not. These labels are for the insect comparison here.

Keep the science accurate

A life cycle continues through generations, not an individual returning from death. Complete/incomplete metamorphosis labels apply to insect comparisons here.

Apply the evidence

Use a specific observation from this lesson to explain one choice. Point to a clue, then connect that clue to a scientific idea.

Curriculum reference: <https://www.nextgenscience.org/dci-arrangement/3-Is1-molecules-organisms-structures-and-processes>

Talk through the evidence

1. Which stage is in the butterfly sequence?

Expected answer: Pupa

Reasoning: Incomplete metamorphosis in insects includes egg, nymph and adult, without a pupal stage. A grasshopper follows this pattern.

2. Which sequence fits a grasshopper?

Expected answer: Egg, nymph, adult

Reasoning: Incomplete metamorphosis in insects includes egg, nymph and adult, without a pupal stage. A grasshopper follows this pattern.

3. What is a key difference?

Expected answer: Presence or absence of a pupal stage

Reasoning: Incomplete metamorphosis in insects includes egg, nymph and adult, without a pupal stage. A grasshopper follows this pattern.

4. Do both records include adult insects?

Expected answer: Yes

Reasoning: Our two records both begin with eggs and end with adults. The butterfly record includes a pupa; the grasshopper record does not. These labels are for the insect comparison here.

Guide the discussion

Ask learners to name the evidence that supports their answer. If an answer differs, revisit the matching key idea on page 2 and invite a revised explanation.

Online rewards: this lesson grants one fixed digital Expedition Discovery. Five saved digital Gemling friends become available only after all six distinct subject lessons are complete, in any order. Digital rewards do not establish physical ownership.