The Butterfly — Nature's Great Transformer

Reading Worksheet — Level F | tahricteaches.com

Few **creature**s undergo a transformation as astonishing as the butterfly. These delicate insects begin life as tiny eggs, hatch into hungry caterpillars, and eventually emerge with brilliantly coloured wings. Found on every continent except Antarctica, butterflies have adapted to rainforests, mountains, deserts, and even busy city gardens, and scientists have identified around 20,000 different species worldwide.

A butterfly's life passes through four separate **stage**s: egg, caterpillar, chrysalis, and adult. During the chrysalis phase, the insect's body almost completely dissolves and then rebuilds itself. In a matter of weeks, simple cells **develop** into wings, legs, and eyes. This remarkable process, called metamorphosis, allows a slow-crawling caterpillar to become a flying adult able to travel far in search of food and mates.

Some butterflies are famous travellers. Each autumn, millions of monarch butterflies begin an incredible **journey** of up to 4,000 kilometres, flying from Canada to the warm forests of central Mexico. No single butterfly lives long enough to make the whole trip both ways, so the return is completed by several later generations. How they find the very same forests their great-grandparents once used remains one of nature's great mysteries.

To **survive**, butterflies use clever tricks to **escape** their enemies. Some have large eye-spots on their wings to frighten hungry birds. Others store a bitter **poison** in their bodies, taken from the plants they ate as caterpillars, and warn predators with bright colours that they taste terrible. A few harmless species even copy these warning patterns to **protect** themselves.

Butterflies also help nature. As they move between blossoms to feed, they carry pollen and help flowers **develop** into fruits and seeds. Their bright wings **attract** us to the beauty of the natural world. Sadly, many species are now **threaten**ed by the loss of wild habitats, the heavy use of chemical sprays, and a changing climate. Protecting butterflies means protecting the meadows, forests, and gardens they need to complete their extraordinary life cycle.

A. Vocabulary

1. creature ____	a. an act of travelling from one place to another, usually far
2. stage ____	b. a substance that can harm or kill a living thing
3. develop ____	c. to make someone or something come closer or take interest

4. journey ____	d. one separate step or period in a longer process
5. survive ____	e. to put in danger; to be likely to cause harm
6. escape ____	f. to continue to live, especially through danger or hardship
7. poison ____	g. to get away from something dangerous or unpleasant
8. protect ____	h. to keep something safe from harm or danger
9. attract ____	i. a living thing, especially an animal
10. threaten ____	j. to grow or change gradually into a more complete form

B. True or False

1. Butterflies are found on every continent except Antarctica. ____
2. A butterfly's life passes through four separate stages. ____
3. During the chrysalis stage, the caterpillar's body stays exactly the same. ____
4. Monarch butterflies can travel up to 4,000 kilometres. ____
5. A single monarch completes the whole round trip by itself. ____
6. Some butterflies use eye-spots to frighten birds. ____
7. Certain butterflies store poison from the plants they ate as caterpillars. ____
8. Butterflies play no part in helping flowers make seeds. ____
9. Loss of wild habitat is one of the threats facing butterflies. ____

C. Fill in the Blanks

Word Bank: stage, journey, poison, attract, threaten

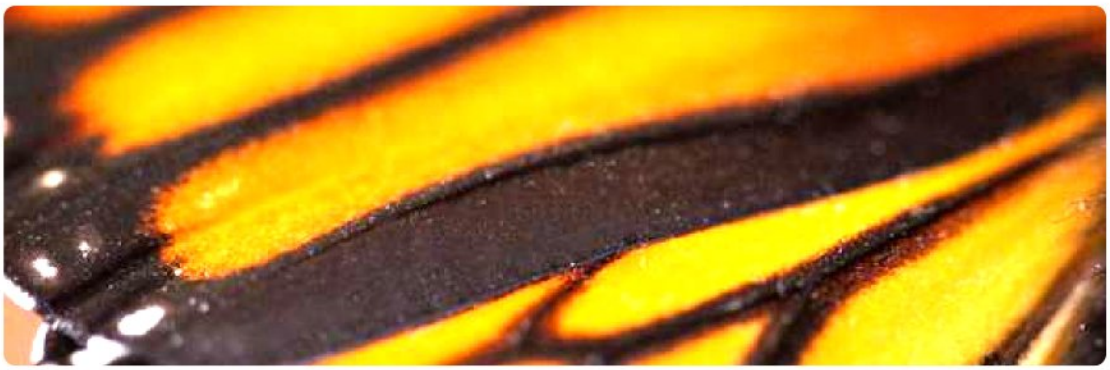
1. A butterfly's life passes through four separate _____s.
2. Each autumn, monarchs begin an incredible _____ to Mexico.
3. Some butterflies store a bitter _____ in their bodies to warn predators.
4. The bright wings of butterflies _____ us to nature's beauty.
5. Many butterfly species are now _____ed by the loss of wild habitats.

D. Comprehension Questions

1. Describe the four stages of a butterfly's life cycle.
2. What is unusual about how monarch butterflies complete their long migration?
3. Explain two ways butterflies protect themselves from predators.
4. How do butterflies help plants reproduce?
5. What threats are causing butterfly numbers to fall, and what does protecting them require?

E. Discussion Questions

1. Scientists still don't fully understand how monarchs find the same forests each year. Why is it valuable for people to keep studying mysteries like this?
2. Butterflies are often used as a symbol of change and new beginnings. Why do you think so many cultures connect them to this idea?
3. If you were designing a butterfly garden for your school, what plants or features would you include, and why?



Answer Key

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A. Vocabulary: 1-i, 2-d, 3-j, 4-a, 5-f, 6-g, 7-b, 8-h, 9-c, 10-e

B. True/False: 1-T, 2-T, 3-F, 4-T, 5-F, 6-T, 7-T, 8-F, 9-T

C. Fill Blanks: 1-stage, 2-journey, 3-poison, 4-attract, 5-threaten

D. Comprehension:

1. A butterfly passes through four stages: egg, caterpillar, chrysalis, and adult. The mother lays an egg; a caterpillar hatches and eats leaves; it forms a chrysalis in which its body dissolves and rebuilds; finally a winged adult emerges.
2. No single monarch lives long enough to make the entire round trip, so the journey south and back is completed across several generations. How later generations find the same Mexican forests their ancestors used is still a mystery.
3. Some butterflies have large eye-spots on their wings to frighten birds, and some store a bitter poison from the plants they ate as caterpillars, advertising it with bright warning colours. A few harmless species also mimic these warning patterns to fool predators.
4. As butterflies move between flowers to drink nectar, they carry pollen from bloom to bloom, helping flowers develop into fruits and seeds, which makes butterflies important pollinators.
5. Butterflies are threatened by the loss of wild habitats, heavy use of chemical sprays, and a changing climate. Protecting them means protecting the meadows, forests, and gardens they need to complete their life cycle.