

Name \_\_\_\_\_

## Beyond Beauty: The Purpose of Butterfly Wings

### Open-Ended Response Answer Key

1. Camouflage is crucial for butterfly survival as it allows them to evade predators by blending into their surroundings. An example of a butterfly species that uses camouflage is the dead leaf butterfly (*Kallima inachus*), which resembles a dried leaf when its wings are closed.
2. As a female butterfly evaluating potential mates, I might be attracted to males with brightly colored wings and intricate patterns, as these traits could indicate genetic quality and fitness for survival.
3. Warning colors in butterfly wings play a vital role in predator-prey interactions by signaling to predators that the butterfly is toxic or unpalatable, thereby deterring them from attacking. This reduces the likelihood of predation and increases the butterfly's chances of survival.
4. Climate change could affect the coloration and function of butterfly wings in several ways. Rising temperatures may influence the distribution of butterfly species, leading to shifts in wing coloration to adapt to new environments. Additionally, changes in temperature and precipitation patterns could impact the availability of food plants and alter the selective pressures on butterfly populations, potentially affecting the evolution of wing coloration.

