

## **Dragonflies: A Complete Insect Life Cycle**

### **Big World of Insects, Spiders & Bugs Series**

**Subject Areas:** Science, Life Science, Biology

**Synopsis:** A fierce dragonfly larva is seen in its aquatic environment as it hunts tadpoles. After about three years, the nymph emerges from the water and undergoes an amazing change to become an adult dragonfly. Many different species of adult dragonflies are seen as they fly and hunt prey. Female dragonflies are shown laying eggs for the next generation of dragonflies.

**Learning Objectives:**

- Objective 1)** Students will be able to describe and identify the characteristics of an insect, including the three body parts and six legs.
- Objective 2)** Students will be able to describe a dragonfly nymph and the change that happens when the nymph becomes an adult.
- Objective 3)** Students will be able to describe some of the different species of dragonfly.
- Objective 4)** Students will be able to discuss the life cycle of the dragonfly.

**Vocabulary:** Define and discuss the following key terms:

Nymph, larva, aquatic, vigilant, tadpole, predator, dragonfly, instinct, vulnerable, metamorphosis, reorganized, exoskeleton, emergence, transformation, commence, extracted, maiden flight, evaporates, species, carnivorous, opportunistic, prey, agile, miniscule

**Pre-Viewing Questions and Discussion:**

- 1) What insects can be found living near a pond? Describe these different insects.
- 2) How long do you think insects live?

**Post-Viewing Questions and Discussion:**

- 1) Describe the dragonfly nymph. What does it look like? What animals does it attack? Where does it live?
- 2) How long does the dragonfly nymph live?
- 3) Describe the change that takes place when the nymph becomes an adult.
- 4) How long does it take for the adult dragonfly to emerge? Why is the dragonfly so vulnerable during this phase of its life?
- 5) Once the dragonfly has emerged, what does it do?
- 6) Describe the adult dragonfly.

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- 7) How does the dragonfly sleep? What happens to the dragonfly in the morning?
- 8) Describe the different species of dragonflies.
- 9) What quality do all dragonflies have in common?
- 10) What creatures are considered prey for a dragonfly?
- 11) How long do adult dragonflies live?
- 12) Describe the different ways that dragonflies can fly.
- 13) What does the female dragonfly do to lay her eggs?
- 14) What animals are predators of dragonflies?

### **Additional Activities:**

- 1) Draw a detailed picture of a dragonfly. Label the head, thorax, abdomen, six legs, wings and antenna. Also include a drawing of some dragonflies in their natural habitat.
- 2) Write a fictional story about a dragonfly nymph that lives underwater and goes through metamorphosis to emerge as an adult.
- 3) Humans have used the dragonfly as a model when engineering aircraft. Research how dragonflies have impacted aircraft design.
- 4) Are dragonflies considered pests? Do they eat mosquitoes? Are dragonflies beneficial insects for humans?
- 5) Are dragonflies found all over the world? Choose 3-5 different species found in different areas and compare and contrast them.

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