

## 4. INTRODUCTION TO REPRODUCTION IN ANIMALS

### TEACHING TASK

#### Multiple Choice Questions

**1. Why is reproduction important to animals?**

- a) It helps them travel to new environments.
- b) It ensures their species doesn't disappear and allows them to pass on survival traits.
- c) It makes them stronger and faster.
- d) It helps them learn new skills.

**Answer:** (b) It ensures their species doesn't disappear and allows them to pass on survival traits.

**Explanation:** Reproduction maintains species continuity and passes beneficial adaptations to offspring.

**2. How do amphibian eggs typically develop?**

- a) Inside the mother's body
- b) Attached to the mother's back
- c) In a nest made of twigs and leaves
- d) In water, hatching into tadpoles

**Answer:** (d) In water, hatching into tadpoles

**Explanation:** Most amphibians lay jelly-like eggs in water that hatch into aquatic larvae (tadpoles).

**3. What is the name given to baby fish that hatch from eggs?**

- a) Tadpoles
- b) Fry
- c) Hatchlings
- d) Pups

**Answer:** (b) Fry

**Explanation:** Newly hatched fish are called fry until they develop scales and fins.

**4. Which is NOT a characteristic of viviparous animals?**

- a) Babies develop inside the mother's body
- b) Babies are born alive
- c) Mothers provide minimal care to the newborns
- d) Examples include humans, dogs, and cats

**Answer:** (c) Mothers provide minimal care to the newborns

**Explanation:** Viviparous animals typically show significant parental care (e.g., nursing mammals).

**5. What distinguishes egg-laying animals from live-bearing animals?**

- a) Egg-laying animals provide more direct care to their young
- b) Babies of egg-laying animals develop inside the mother's body
- c) Live-bearing animals protect their eggs
- d) Babies of egg-laying animals develop outside the mother's body

**Answer:** (d) Babies of egg-laying animals develop outside the mother's body

**Explanation:** Oviparous species lay eggs with external development, unlike viviparous internal development.

### **Advanced Level Questions**

#### **(i) More than One Answer Type**

##### **6. Which animals exhibit oviparous reproduction?**

a) Birds b) Reptiles c) Amphibians d) Fish

**Answer:** (a) Birds, (b) Reptiles, (c) Amphibians, (d) Fish

**Explanation:** All these groups include egg-laying species, though some exceptions exist (e.g., viviparous snakes).

##### **7. Which describe viviparous reproduction?**

- a) Babies develop inside the mother's body
- b) Babies are born alive
- c) Examples include humans, dogs, and cats
- d) Mothers provide direct care to newborns

**Answer:** (a), (b), (c), (d)

**Explanation:** All statements are true for viviparous animals.

#### **(ii) Fill In the Blanks**

##### **8. Amphibians like frogs and toads lay eggs in water.**

**Explanation:** Their eggs lack shells and require aquatic environments.

##### **9. In viviparous animals, babies develop inside the mother's body and are born alive.**

**Explanation:** Viviparity involves internal development and live birth.

#### **(iii) Matching Type**

##### **10. Match the animals with their method of egg laying:**

###### **Column I**

- 1. Birds
- 2. Reptiles
- 3. Amphibians
- 4. Fish

###### **Column II**

- D. Lay eggs and sit on them to keep them warm until hatching.
- C. Bury eggs in sand or soil.
- B. Lay eggs in water, often resembling a mass of jelly.
- A. Lay eggs in nests made of twigs and leaves.

##### **Explanation:**

Birds D: Birds typically incubate their eggs by sitting on them to keep them warm until they hatch.

Reptiles C: Many reptiles (like turtles) bury their eggs in sand or soil for protec-

tion and warmth.

Amphibians B: Amphibians (like frogs) often lay jelly-like eggs in water, forming floating masses.

Fish A: Some fish (like sticklebacks) build simple nests with twigs or plants and lay eggs there.

## **LEARNER'S TASK**

### **Multiple Choice Questions**

#### **1. How do animals reproduce?**

- a) By cloning themselves.
- b) By photosynthesis.
- c) By laying eggs or giving birth to babies.
- d) By splitting into two identical animals.

**Answer:** (c) By laying eggs or giving birth to babies.

**Explanation:** Most animals reproduce either oviparously (egg-laying) or viviparously (live birth).

#### **2. What is the primary method of reproduction for birds, reptiles, amphibians, and fish?**

- a) Live birth b) Laying eggs c) Budding d) Fission

**Answer:** (b) Laying eggs

**Explanation:** While exceptions exist, these groups are predominantly oviparous.

#### **3. Where do sea turtles typically lay their eggs?**

- a) In tree nests b) In underground burrows
- c) On sandy beaches d) In rocky crevices

**Answer:** (c) On sandy beaches

**Explanation:** Sea turtles dig nests in sand above the high tide line.

#### **4. Which is an example of a reptile that gives birth to live young?**

- a) Crocodile b) Turtle c) Snake d) Alligator

**Answer:** (c) Snake

**Explanation:** Some snakes (e.g., garter snakes, boas) are viviparous, unlike most reptiles.

#### **5. What is a unique reproductive trait observed in some sharks and reptiles?**

- a) They exclusively lay eggs
- b) They provide extensive care to their young after birth
- c) They can switch between laying eggs and giving birth to live young
- d) They carry their offspring in pouches

**Answer:** (c) They can switch between laying eggs and giving birth to live young

**Explanation:** Some species exhibit facultative viviparity (e.g., certain lizards and

sharks).

### **Advanced Level Questions**

#### **(i) More than One Answer Type**

##### **5. How do sea turtles and salmon differ in egg-laying behavior?**

- a) Sea turtles lay eggs on sandy beaches.
- b) Salmon bury their eggs in sand or soil.
- c) Sea turtle eggs hatch into tadpoles.
- d) Salmon lay thousands of eggs in riverbeds.

**Answers:** (a), (d)

##### **Explanation:**

- (a) True - Turtles nest on beaches
- (d) True - Salmon create "redds" (nests) in river gravel
- (b) Incorrect - Salmon bury eggs in gravel, not sand/soil
- (c) Incorrect - Turtle hatchlings resemble adults

##### **6. Key differences between egg-laying and live-bearing animals:**

- a) Babies develop outside the mother's body in egg-laying animals
- b) Mothers of egg-laying animals provide more direct care
- c) Live-bearing animals often provide more direct postnatal care

**Answers:** (a), (c)

##### **Explanation:**

- (a) True - Fundamental difference
- (c) True - Viviparous species typically show greater care
- (b) False - Egg-layers generally provide less direct care

#### **(ii) Fill In the Blanks**

##### **7. Frogs lay eggs in water, and their eggs often resemble a mass of jelly floating in ponds or streams.**

**Explanation:** Amphibian eggs lack shells and require aquatic environments.

##### **8. Some reptiles and sharks have the ability to lay eggs or give birth to live young.**

**Explanation:** These species exhibit ovoviviparity or facultative viviparity.

#### **(iii) Matching Type**

9. Match the terms with their descriptions:

**Column I****Column II**

- |               |  |
|---------------|--|
| 1. Viviparous | A. Immature form of insects like butterflies, preceding adult hood |
| 2. Reptiles   | C. Bury eggs in sand or soil                                       |
| 3. Amphibians | B. Lay eggs in water, often resembling a mass of jelly             |
| 4. Fish       | D. Lay eggs and sit on them to keep them warm until hatching       |

**Explanaton:**

1. Viviparous animals give birth to live young ones, whereas Option A talks about the larval stage of insects, which is unrelated — so this is an incorrect match.
2. Reptiles such as snakes and turtles lay eggs and bury them in sand or soil to protect them — making Option C the correct match.
3. Amphibians like frogs lay jelly-like eggs in water — this matches correctly with Option B.
4. Fish usually lay eggs in water but do not sit on them to keep them warm — Option D is incorrect for fish, as it applies to birds.