

MAIN CHARACTERISTICS/ INTERNAL PARTS OF THE VERTEBRATES CLASS REPTILIA

Material:

- A set of pictures, labels, and definitions illustrating the main characteristics/ internal parts of the reptile
- A booklet of the main characteristics / internal parts of the reptile
- A wall chart of the reptile
- A live reptile, both a snake and lizard are preferred
- A preserved lizard for dissection / model or transparencies

Presentation 1: Main Characteristics of the Reptile

1. Bring a live snake and/or lizard before the children and observe them. Note the differences between the snake and lizard if both are represented.
2. Allow the children to discuss what they observe. Ask how the snake and/or lizard moves about. Ask how the snake and/or lizard breathes.
3. Review the booklet of the Zoology Classified Nomenclature for reptiles.
4. While observing the live snake and/or lizard ask how the animal moves about.
5. While observing the live snake and/or lizard ask how they breathe.
6. Place the live snake and/or lizard to the side. Present the preserved lizard on a tray or the model/transparencies. Pass the tray or model around so that the children may feel the lizard. Have the children verbally describe their observations.

7. Dissect the lizard or bring the model or transparencies before the children. Note the heart first. Examine the three chambers of the heart. Discuss why a three-chambered heart is required in the blood circulation of the reptile. Review the vocabulary: circulation.
8. Note the lungs. Discuss the fact that even if a reptile lives in or near the water, it still breathes with lungs. Review the vocabulary: respiration.
9. Examine the spinal column and ribs of the lizard. Discuss why the skeleton is inside. Review the vocabulary: skeleton.
10. The lizard may have eggs. Note that they have a firm, leathery coat, though not a brittle shell. They produce less eggs than the fish or amphibians. Discuss why this difference exists. Review the vocabulary: reproduction.
11. Lay out the pictures of the main characteristics / internal parts of the reptile. Distribute the labels for the children to read and match to the appropriate pictures. Read the definitions and allow the children to match the definitions to the pictures and labels.
12. Present the booklet and display the wall chart.

Activities:

1. Allow the children to sit and observe the reptile.
2. Allow the children to dissect or examine the model of the reptile.
3. The children should make their own booklets, tracing or drawing the pictures, and writing the definitions.
4. Visit a zoo or museum that specializes in reptiles.

NOTE: It is advised that this presentation be divided over several days:

Days 1-6 Observe the live reptile

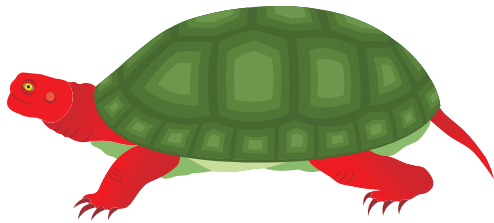
 Observe the preserved reptile

Days 7-10 Dissect the reptile / view model and transparencies

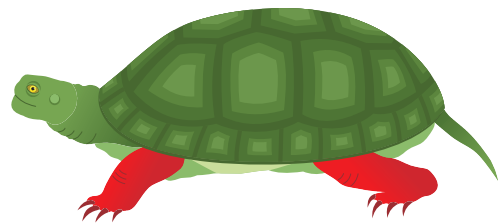
Days 11-12 Introduce the pictures and labels, the booklet and wall chart

MAIN CHARACTERISTICS

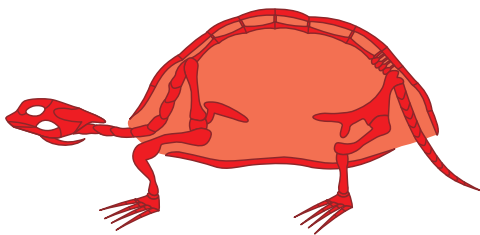
Vital Functions of the Reptiles



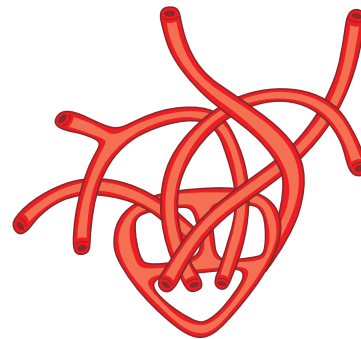
Reptile: Skin



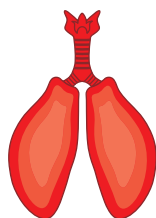
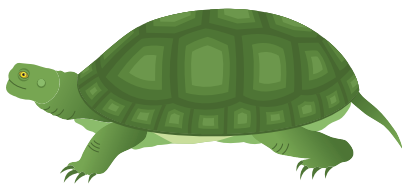
Reptile: Movement



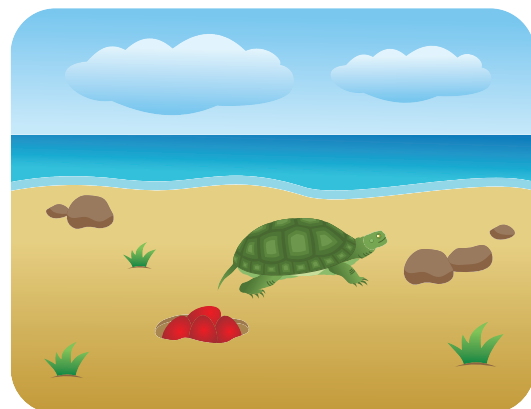
Reptile: Skeleton



Reptile: Circulation



Reptile: Respiration



Reptile: Reproduction

Presentation 2: Life Cycle of the Turtle

1. Show the life cycle of the turtle to the children.
2. Name the parts of the life cycle of the turtle: adult, eggs, young, adults.
3. Discuss the life cycle of the turtle:
 - A. **The Life Cycle of the Turtle** - The adult turtle is either male or female. The male turtle deposits sperm within the cloaca of the female. The female digs a nest and deposits the fertilized eggs in the nest. The female turtle covers the eggs and leaves them. After a period of time, the young turtles hatch. The young turtles grow into adult turtles.
 - B. **The Adult Turtles** - The adult turtle is either male or female. During mating season, the adult turtles come together. The male turtle uses his penis to deposit sperm within the cloaca of the female turtle. The female turtle digs a nest and deposits the fertilized eggs in the nest. The female turtle covers the eggs and leaves them.
 - C. **The Eggs** - The turtle eggs have a leathery shell to protect them. The reptile egg is an amniotic egg. The embryo is encased in a secure, self-contained aquatic environment. The amnion is the thin membrane that encloses the fluid that surrounds the embryo. The yolk sac encloses the yolk, the fat-rich food supply for the developing embryo. The allantois stores the nitrogenous waste material produced by the developing embryo. The allantois contains many blood vessels and also exchanges carbon dioxide for oxygen from the environment. The chorion surrounds all the other membranes and protects the developing embryo. The albumen contains protein and water for the embryo. The embryo develops into the young turtle. When the young turtle is ready, it hatches from the egg.

- D. The Young Turtles - The young turtles hatch from their eggs. They dig their way out of the nest into the environment. The young turtles move as quickly as possible to a safe place to escape predators. The young turtles eat and grow into adult turtles.
4. Encourage each child to repeat the functions of the parts of the life cycle of the turtle.
5. Lay out the pictures of the life cycle of the tortoise in a circle with the adult turtle at the top middle and going clockwise.
6. Distribute the labels for the children to match to the pictures.
7. When the children know the definitions of the parts of the life cycle of the turtle, distribute the definitions for the children to read and to match to the pictures.
8. Display the chart of the life cycle.
9. Place The Turtle Life Cycle classified nomenclature material on the shelf.
10. Place The Turtle Life Cycle booklet on the shelf.
11. Follow-up activities for the child:
 - A. Match the picture and label. (simple nomenclature)
 - B. Match the picture, label, and definition. (classified nomenclature)
 - C. Make a booklet of The Turtle Life Cycle.
 - D. Make a chart of The Turtle Life Cycle.
12. Repeat the above procedure with the life cycle of the rattlesnake.
13. Repeat the above procedure with the life cycle of the lizard.
14. Repeat the above procedure with the life cycle of the alligator.