

Bald Eagles 101

Name _____

Go to the Science Spot (<http://sciencespot.net/>) and click "Kid Zone"
to find the link for the "Links for Eagle Days" page!

Site: Eagles to the Nest

Click "Lesson 1: Bald Eagles 101" and choose "Who Are They?"

1. How many species of eagles are found around the world? _____
2. The term raptor comes from the Latin word for _____, which stems from the term "rapture" meaning "_____."
3. Search the page to find the answers to each question.
 - 1st Group - Sea and Fish Eagles
 - (1) How many species belong to this group? _____
 - (2) Where do they live? _____
 - (3) What do they like to eat? _____
 - 2nd Group - Snake Eagles
 - (1) How many species belong to this group? _____
 - (2) What do they eat? _____
 - (3) Where can you find these eagles? _____
 - 3rd Group - Harpy Eagles
 - (1) How many species belong to this group? _____
 - (2) Where do they live? _____
 - (3) What do they eat? _____
 - 4th Group - Booted Eagles
 - (1) What do they eat? _____
 - (2) What one characteristic do all booted eagles have in common? _____

Identify each eagle by its group using **SF** for Sea and Fish eagles, **S** for Snake eagles, **H** for Harpy eagles, and **B** for Booted eagles.

_____ American Bald Eagle	_____ Harpy Eagle
_____ Golden Eagle	_____ Bateleur
_____ Crested Serpent Eagle	_____ Steller's Sea Eagle
_____ Black Solitary Eagle	_____ Ayres' Hawk Eagle

4. Where are bald eagles found? _____
5. Which is larger: a female or male bald eagle? _____
6. How did the bald eagle gets its name? _____

Click “Back to Lesson 1” and choose “Looks”.

7. How long is the beak of an eagle? _____
8. How is the beak helpful? _____
9. What is the hook used for? _____
10. What does an eagle's body need to be a good flyer? _____ & _____
11. When an eagle flaps its wings, most of the _____ that powers the eagle into the air comes from the _____ stroke. The _____ responsible for this motion are huge! The flight muscles of an eagle can account for _____ of its total body weight.
12. True or False? Eagles have hollow bones. _____
13. What is the weight of an eagle's skeleton? _____ pound
14. What is the most important sense for a bald eagle? _____
15. The bald eagle has a greater concentration of _____ as compared to _____. The greater the amount of cones, the finer the _____ and the higher the _____ power. This is the ability of the eyes to _____ on objects at a _____.
16. True or False? An eagle can see as well at night as in the daytime. _____
17. How many more times greater is the resolving power of an eagle than a human? _____
18. How do eagles catch and kill their prey? _____
19. What term is used for the razor-sharp claws on an eagle's foot? _____
How long can they be? _____
20. How many feathers does an adult bald eagle have? _____ How much would they weigh all together? _____
21. All feathers are made up of a substance called _____, which is the same substance that makes up our _____.
22. What are the three types of feathers found on an eagle's wing? How are they used?
_____- _____
_____- _____
_____- _____
23. Pound for pound, an eagle's wings are stronger than the wing of a _____.

Click “Back to Lesson 1” and choose “Habitat”.

24. What is a habitat? _____
25. What four things does a good habitat need? _____
26. How old are eagles when they begin reproducing? _____ to _____ years old
27. How long is the incubation period for eagle eggs? _____ to _____ days
28. True or False? Eggs usually hatch in the order they were laid. _____
29. What does the term “fledge” mean? _____ How old are eagles when they first try this? _____ and _____ weeks old
30. What types of trees are used by eagles for nests? _____
31. Complete this paragraph describing the nest building process:

Bald eagles build their nests by placing sticks in _____. The first layer is placed in the shape of a _____. The following layers follow the triangular _____ but are rotated. Each stick has others _____ in-between. Eventually, after many, many layers, the nest begins to take shape. A nest built of sticks would not be comfortable for sitting or for an _____ to grow up in, so the completed nest is lined with _____, _____ needles, or _____. The finished nest might look messy, but is actually very _____. In fact, a _____ can be supported in a bald eagle’s nest.

Click “Back to Lesson 1” and choose “Foods”.

32. What food makes up 90% of a bald eagle’s diet? _____
33. What else will bald eagles eat? _____
34. What is a “crop”? _____ How does this help an eagle? _____
35. Eagles, like all _____, cough up or _____ the indigestible parts of their prey. The _____ contains anything that is not digestible, such as _____, _____, fur, _____, feathers, and _____. These pellets can help _____ identify what an eagle is eating.

Bald Eagles 101

ANSWER KEY

Go to the Science Spot (<http://sciencespot.net/>) and click “Kid Zone” to find the link for the “Links for Eagle Days” page!

Site: Eagles to the Nest

Click “Lesson 1: Bald Eagles 101” and choose “Who Are They?”

1. How many species of eagles are found around the world? **59**
2. The term raptor comes from the Latin word for **plunderer**, which stems from the term “rapture” meaning “**to seize and carry away.**”
3. Search the page to find the answers to each question.

1st Group - Sea and Fish Eagles

- (1) How many species belong to this group? **11**
- (2) Where do they live? **Near water**
- (3) What do they like to eat? **Fish and other animals that live in or near water**

2nd Group - Snake Eagles

- (1) How many species belong to this group? **12**
- (2) What do they eat? **Snakes, frogs, lizards, and other reptiles & amphibians**
- (3) Where can you find these eagles? **Forests, deserts, and plains**

3rd Group - Harpy Eagles

- (1) How many species belong to this group? **6**
- (2) Where do they live? **Rain forests of South America and the Philippines**
- (3) What do they eat? **Mammals, such as large monkeys and tree sloths**

4th Group - Booted Eagles

- (1) What do they eat? **Termites, small birds, large mammals, and carrion**
- (2) What one characteristic do all booted eagles have in common? **They have feathers that extend down to their feet like boots.**

Identify each eagle by its group using **SF** for sea and fish eagles, **S** for snake eagles, **H** for harpy eagles, and **B** for booted eagles.

SF American Bald Eagle

H Harpy Eagle

B Golden Eagle

S Bateleur

S Crested Serpent Eagle

SF Steller’s Sea Eagle

H Black Solitary Eagle

B Ayres’ Hawk Eagle

4. Where are bald eagles found? **Only found in North America**
5. Which is larger: a female or male bald eagle? **Female**
6. How did the bald eagle gets its name? **It’s name comes from the old English word “balde” which means white.**

Click “Back to Lesson 1” and choose “Looks”.

7. How long is the beak of an eagle? **Almost as long as its head**
8. How is the beak helpful? **The beak is designed to help it eat fish.**
9. What is the hook used for? **The hook is used to pull and rip animal flesh.**
10. What does an eagle's body need to be a good flyer? **Strong and light weight**
11. When an eagle flaps it's wings, most of the **lift** that powers the eagle into the air comes from the **downward** stroke. The **muscles** responsible for this motion are huge! The flight muscles of an eagle can account for **half** of its total body weight.
12. True or False? Eagles have hollow bones. **True**
13. What is the weight of an eagle's skeleton? **Half a pound**
14. What is the most important sense for a bald eagle? **Sight**
15. The bald eagle has a greater concentration of **cones** as compared to **rods**. The greater the amount of cones, the finer the **vision** and the higher the **resolving** power. This is the ability of the eyes to **focus** on objects at a **distance**.
16. True or False? An eagle can see as well at night as in the daytime. **False**
17. How many more times greater is the resolving power of an eagle than a human? **8**
18. How do eagles catch and kill their prey? **They use their feet.**
19. What term is used for the razor-sharp claws on an eagle's foot? **Talon** How long can they be? **Up to one inch long**
20. How many feathers does an adult bald eagle have? **Over 7000** How much would they weigh all together? **21 ounces**
21. All feathers are made up of a substance called **keratin**, which is the same substance that makes up our **fingernails**.
22. What are the three types of feathers found on an eagle's wing? How are they used?
Covert feathers - Adds thickness to the front of the wing allowing air to move faster over the top of the wing.
Primary feathers - Can be spread out like fingers on a hand to reduce drag.
Secondary feathers - Move up or down to control the amount of drag.
23. Pound for pound, an eagle's wings are stronger than the wing of a **jet plane**.

Click “Back to Lesson 1” and choose “Habitat”.

24. What is a habitat? **It is the place where an animal lives.**
25. What four things does a good habitat need? **Food Water Shelter Space**
26. How old are eagles when they begin reproducing? **4 to 5 years old**
27. How long is the incubation period for eagle eggs? **31 to 45 days**
28. True or False? Eggs usually hatch in the order they were laid. **True**
29. What does the term “fledge” mean? **Fly** How old are eagles when they first try this? **9 and 14 weeks old**
30. What types of trees are used by eagles for nests? **Oak, hemlock, poplar, elm, sycamore, and lodgepole pine trees**
31. Complete this paragraph describing the nest building process:

Bald eagles build their nests by placing sticks in **layers**. The first layer is placed in the shape of a **triangle**. The following layers follow the triangular **pattern** but are rotated. Each stick has others **woven** in-between. Eventually, after many, many layers, the nest begins to take shape. A nest built of sticks would not be comfortable for sitting or for an **eaglet** to grow up in, so the completed nest is lined with **moss, pine needles, or grasses**. The finished nest might look messy, but is actually very **sturdy**. In fact, a **human adult** can be supported in a bald eagle’s nest.

Click “Back to Lesson 1” and choose “Foods”.

32. What food makes up 90% of a bald eagle’s diet? **Fish**
33. What else will bald eagles eat? **Ducks, wading birds, turtles, rodents, snakes, and carrion**
34. What is a “crop”? **It is an enlarged area in the esophagus used to store food.** How does this help an eagle? **A full crop can help an eagle can survive at least 5 to 7 days without eating.**
35. Eagles, like all **raptors**, cough up or **regurgitate** the indigestible parts of their prey. The **pellet** contains anything that is not digestible, such as **fins, scales, fur, bones, feathers, and teeth**. These pellets can help **biologists** identify what an eagle is eating.