



CREATION AND THE BEGINNING OF HUMAN HISTORY

#13 – Magnificent Flying Machines

Genesis 1:20-23

PICTURES NEEDED

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|------|--|------|--------------------------|
| 13-1 | Variety of flying insects and birds | 13-5 | Types of beaks and bills |
| 13-2 | Insects performing important functions | 13-6 | Types of feet and talons |
| 13-3 | Bat, penguin and ostrich | 13-7 | Types of feathers |
| 13-4 | Bird nest and eggs | 13-8 | Kookaburra bird |

REVIEW (Before Teaching Lesson)

- **Journal Review:** Ask students to share an important truth that they learned from their journal readings at home that week. Share some of your own insights.
- **Previous Lesson Review:** (Use the visual from the last lesson to aid in review)
What are the differences between living plants and living animals? What did God mean when he said, “Let the water teem with living creatures”? What are the groups of animals that live in the ocean?
- **The Big Question Review:** What should sea creatures remind us of?
Let the students give their answers to the question.
- **Bible Verse Review:** Psalm 104:24-25
In wisdom God made all things.

²⁴How many are your works, O LORD! In wisdom you made them all; the earth is full of your creatures.) ²⁵There is the sea, vast and spacious, teeming with creatures beyond number-- living things both large and small.

LESSON CONTENT

Note: The Bible verses included in the lesson are from the NIV 1984 edition. The wording of the questions is derived from that version. If another version of the Bible is used, questions may need to be adapted.

In the last lesson we examined the different types of life God created to live in the waters of the earth, in this lesson we will study the amazing design of the different types of winged birds.

On the fifth day of creation God said: ²⁰"Let the water teem with living creatures, and let birds fly above the earth across the expanse of the sky." ²¹So God created the great creatures of the sea and every living and moving thing with which the water teems, according to their kinds, and every winged bird according to its kind. And God saw that it was good. ²²God blessed them and said, "Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth."

The Hebrew word for winged bird includes anything that flies. (**picture 13-1**) What else flies besides birds? Most insects at some point in their life cycle fly. Genesis says that God created the winged birds according to their own kinds. There are about 9,700 species (different types) of birds and about one million species of insects.

How do people generally view insects? Although most people generally find most insects annoying, they are a critical part of the balance of nature.

Why are insects important? (**picture 13-2**)

- Insects are an important source of food for a variety of animals including lots of birds and fish.
- Many insects, especially bees, pollinate different types of flowers so that plants can produce fruits and seeds.
- Insects also feed on animal wastes and dead plants and animals, breaking them down and helping to keep the environment in right balance.

What are words associated with birds in terms of their physical characteristics?

(List the words the children give and add some of your own. Use the words as a basis for going over the information that follows.)

1. All birds have feathers and wings. In fact, birds are the only animals with feathers but they are not the only animals that have wings and fly.
Besides insects and birds what other animal flies? A bat is not a bird but a mammal and it also flies. (**picture 13-3**)

What are some birds that don't fly? Ostriches and penguins have wings and feathers but they don't fly. Ostriches can only walk or run and they use their wings for balance instead of flight. Besides walking, Penguins can swim under water and use their wings like flippers.

2. All birds hatch from eggs that the female lays. (**picture 13-4**) She generally lays the eggs in a nest that she, her mate, or both of them have built. The parents protect the baby birds and feed them until they can take care of themselves. Most birds can function on their own by the time they are a few months old. The parents push them out of the nest when they are ready to fly.

3. Instead of teeth, birds have a beak or a bill. (**picture 13-5**) The beaks and bills of birds were designed by God to serve different purposes depending on what food each bird was to eat. Many different types of birds can live in the same area because they don't feed on the same things. (Have the children describe the types of beaks and bills.)
4. Feet, claws and talons are also unique to each type of bird and again design is related to how God planned the bird to function. (**picture 13-6**) (Have the children describe the types of feet and talons.)

Besides having wings and feathers, how does the design of a bird enable it to fly? All the parts of a bird have been designed to enable it to fly.

- A bird's body is streamlined and aerodynamically designed for efficient flight.
- When the wings extend out, they create the lift that enables the bird to get off the ground and stay in the air.
- Beaks are exceptionally strong but lightweight.
- Bones are hollow and some are fused together to make them strong but light. If a bird's bones were like ours, they would be too heavy for the bird to fly.
- Even the internal organs of a bird and the way the heart works are designed to enable it to fly.
- Feathers are also lightweight.

What are the different functions of feathers? (**picture 13-7**) Some feathers are designed for flight, others for warmth and protection and some, it would seem, just for beauty and attracting a mate, like a peacock. (Have the children describe the types of feathers.)

How are birds part of the balance of nature? Birds, like insects, are an important part of the balance of nature.

- Through eating the fruit of plants birds spread the seeds around an area so more plants can sprout.
- Hummingbirds pollinate the flowers as they extract nectar out of them for their food.
- Some birds help farmers by eating weed seeds while others eat the insects that would destroy crops.
- Predator birds like hawks and eagles help keep rodents like rats and mice under control.

What do you think people have learned from studying the design of birds? Studying the amazing design of birds has enabled people to understand principles of flight and apply that knowledge to the development of the airplane.

We can learn something about God and gain his wisdom from every aspect of his creation. We need to study both God's creation and his word to understand principles of right living. Just as birds were designed to function in certain ways, so humans were designed to function in a right relationship with their creator.

Jeremiah 8:7 says, *⁷Even the stork in the sky knows her appointed seasons, and the dove, the swift and the thrush observe the time of their migration. But my people do not know the requirements of the LORD.*

What does the verse mean? We as God's people are to know what God requires of us and follow our design. As we live in the way God designed us to, in general life will go well for us. We need to choose carefully what we will believe and follow. Remember that birds fly according to a design and that as we live according to God's design and dwell with him we are blessed.

LESSON WRAP-UP

- **Overview Questions:** How are insects an important part of the balance of nature? What is unique about birds? What does the design of each type of bird reveal about it? What have people learned from studying birds?
- **Thought Questions:** What should the fact that people had to study birds to learn about principles of flight and how to design an airplane cause all people to consider? Why do you believe a bird was designed and didn't evolve? Why are people able to look at the complex design of a bird and think it is a result of a random evolutionary process rather than created by God?
- **Prayer:** Thank God for the magnificent design of birds and what can be learned from studying them. Pray that when you see a bird and think about its design and purpose you would consider your own design and purpose and commit yourself to following God's plan and dwelling with him.
- **The Big Question: What can we learn from the birds?**
Let the students give their answers to the question. Share the memory verse. Ask how it answers the question.
- **Memory Verse: Jeremiah 8:7** We are wise when we follow our design and respond rightly to God.

⁷Even the stork in the sky knows her appointed seasons, and the dove, (the swift and the thrush observe the time of their migration. But my people do not know the requirements of the LORD.)

Questions: What does it mean to dwell with God? Why are those who dwell with God blessed?

ACTIVITIES (Completed after the lesson)

Any age appropriate activity can be included which fits into the class time. The activities with a star are included on the class notes.

★ **Lesson Notes:** Ask the students to summarize in one sentence what the lesson was about. Then have them give three main points covered in the lesson. An example is below.

Theme: Besides the sea creatures, God also created birds and insects on the fifth day.

1. Insects have an important part in God's creation. They break down waste, pollinate flowers and are food for other animals.
2. Birds were designed by God to fly. They are the only animals with feathers.
3. God designed each type of bird in a special way so that it can eat a certain type of food. That way different kinds of birds can live together.

★ **Memory Verse:** Read the memory verse on the cover of the class notes and then have the students fill in the blanks in the verse.

★ **Activity Page:** Birds of a feather flock together

Over two thousand years ago a man in Greece named Aesop wrote fables (stories) that had an important moral to them. These morals have become sayings that we still use today. One of these sayings is , "Birds of a feather flock together" and comes from Aesop's story of the farmer and the stork:

A farmer put nets in his fields to catch the cranes that came to steal the seed he had planted. He caught several cranes and with them one stork. The stork begged the farmer to let him go because he was not a robber crane but a poor harmless stork that did not resemble a crane in any way. The farmer replied that while he did not resemble a crane he was caught with the cranes and must expect to suffer the same punishment because the farmer had every reason to think he was stealing too. After all, "Birds of a feather flock together."

Discussion: What does it mean that "Birds of a feather flock together"? Why wouldn't the farmer excuse the stork because he wasn't a crane? How does what Paul says in 1 Corinthians 15:33, "Do not be misled: 'Bad company corrupts good character,'" relate to the fable?

Reminder: People, like birds, hang around with those who are like them. You will be judged by the company you keep.

Activity: Unscramble the names of types of birds from the lesson and decode the hidden message with the clues: peacock, penguin, ostrich, eagle, hawk, hummingbird, stork, dove

Message: Birds of a feather flock together.

Further Understanding: Investigation/Reasoning Skills

Matching design with purpose

Explain the purpose of a beak/bill and then have the students match the shape to the right type on the back of the journal. Do the same for the bird feet.

Shape	Type	Purpose
	1. Cracker	Seed eaters like sparrows and cardinals have short, thick conical bills for cracking seed.
	2. Shredder	Birds of prey like hawks and owls have sharp, curved bills for tearing meat.
	3. Chisel	Woodpeckers have bills that are long and chisel-like for boring into wood to eat insects.
	4. Probe	Hummingbird bills are long and slender for probing flowers for nectar.
	5. Strainer	Some ducks have long, flat bills that strain small plants and animals from the water.
	6. Spear	Birds like herons and kingfishers have spear-like bills for fishing.
	7. Tweezer	Insect eaters like warblers have thin, pointed bills.
	8. Army knife	Crows have a multi-purpose bill that allows them to eat fruit, seeds, insects, fish, and other animals.
	1. Grasping	Raptors like Osprey use their large curved claws to snatch fish from the water.
	2. Scratching	Pheasants and other birds that scratch the soil for food have nail-like toes.
	3. Swimming	Ducks and other webbed lined swimming birds use their feet like paddles
	4. Perching	Robins have a long back toe, which lets them grab a perch tightly.
	5. Running	Many fast-running birds have three toes rather than four.
	6. Climbing	A woodpecker's hind toes enable it to climb without falling backward.

JOURNAL

The journal is passed out at the end of class for the students to complete at home. It has six readings that answer a digging deeper question. It would be beneficial for the teacher to work through the journal readings also.

Digging Deeper: What can we learn from the birds?

Reading 1: Jeremiah 8:4-7 We are wise when we respond to God.

What was God's complaint about Israel? Why weren't they wise? Why are the birds wise?

Reading 2: Psalm 84:1-7 We should make our home in God's house.

Where does the sparrow make her home? Why is that a good place to be? How do we make our home in God's house?

Reading 3: Matthew 6:25-27 We shouldn't worry about provision.

What is provision? Why shouldn't we worry about our provision?

Reading 4: Matthew 10:28-33 We are not afraid of those who can physically kill us.

Who shouldn't we be afraid of? Why? Who should we be afraid of? Why? What will keep us safe for all eternity? Why?

Reading 5: Job 39:13-18, 26-30 We recognize differences in design.

What can't the ostrich do? Why? What can the ostrich do? Why? Who determined what the ostrich could and couldn't do? Why is that important to remember? By whose command does the eagle fly? What else does the eagle do? Why does the eagle do those things? Why is that important to remember?

Reading 6: Job 39:26-30 Thinking about design and function

To reflect on how God designed birds to function in certain ways and humans to function in other ways, try to build a bird's nest.

1. Examine the design of a simple bird nest.
2. Collect the type of materials the nest is made out of.
3. Try to weave a bird nest.
4. Reflect on why this is a difficult task for you but not for the bird.