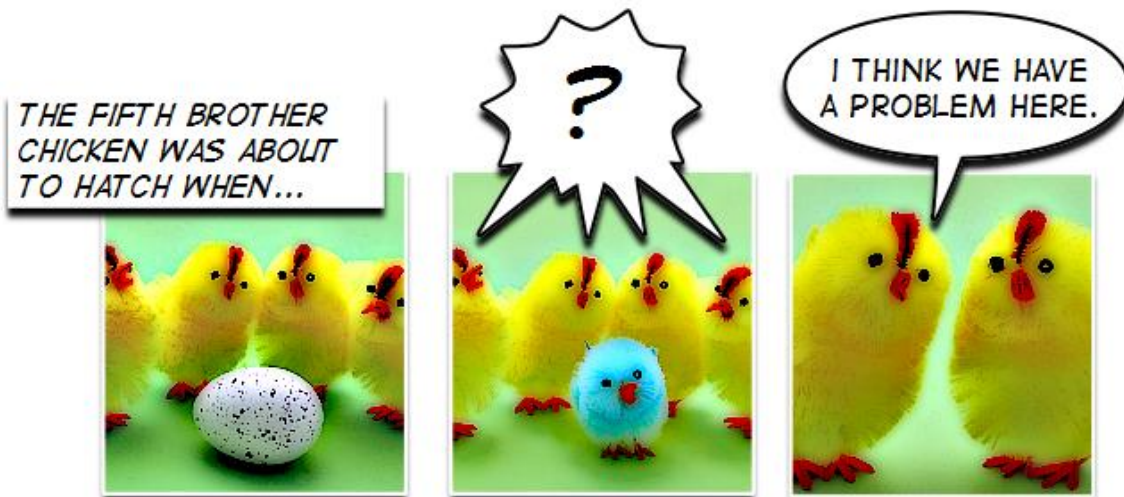


CHAPTER 9

In the last unit, we looked at the biomes that organisms live in. All organisms that live in each of these areas have features (for example, special body parts and abilities) that help them survive!



In this unit we are going to look at how and why these features are so important!

Have you ever noticed that brothers tend to look alike? Have you ever had trouble telling them apart? The things that make these people look alike are known as **inherited** ("in-hair-a-ted") **traits**. An inherited trait is something (like eye color, height, hair color...) that you get from your parents.

Notice I said **parents!** That's right! You get your inherited traits from both your mom and dad! And it is not just humans that get their traits from their parents...

Many living organisms inherit traits from their parents.

Scientists have a fancy word for all the babies in the world... **offspring.**

I'm sure you know other words for parents and offspring, how about...



Parents

Dog

Cat

Bird

and

and

and

Offspring

Puppy

Kitten

Chick

Most offspring get their traits from their parents. This is why most offspring look much like their parents.

For example, a flower grows seeds that can be planted in the ground. These seeds will grow into another flower, right? You would not expect a seed to grow into a dog, would you?

Of course you would not!

It is true that family members share many kinds of inherited traits...

Some of these inherited traits are:

- Eye color
- Hair color
- Height
- Color of skin
- Dimples or freckles
- Naturally curly or straight hair

**...there are even some inherited traits that
can not be seen very easily!**

Some of these "hidden" traits include:

- **The ability to roll your tongue**

Can you roll your tongue into a tube? Not everybody can!

- **Color blindness**

Not everyone can see the difference in colors! For example, some people cannot see the color green.

But not all traits are inherited...

...some traits can be learned!



None of you have seen a newborn baby pick up a book and start to read, have you? No way! The ability to read was learned through practice! This is called a "learned trait."

You learned to do a lot of stuff in your life:

- Ride a bike
- Draw pictures
- Brush your teeth

None of these abilities were inherited from your parents! You had to learn how to do them!

But our traits, if they are learned or inherited, allow us to be grouped together into one **species** ("spee-ces"). A species is a group of similar and related organisms.

How about a story to help you understand this topic...

Imagine an alien visiting your home and looking at all of your family.

The alien may think that all humans look alike, right? We all have two ears, a nose, a couple of eyes, two arms and legs...



You may say to the alien, "but not everyone looks alike..."

...and you are correct!

But humans are a lot more alike one another than we are with chickens...

Yes... chickens!

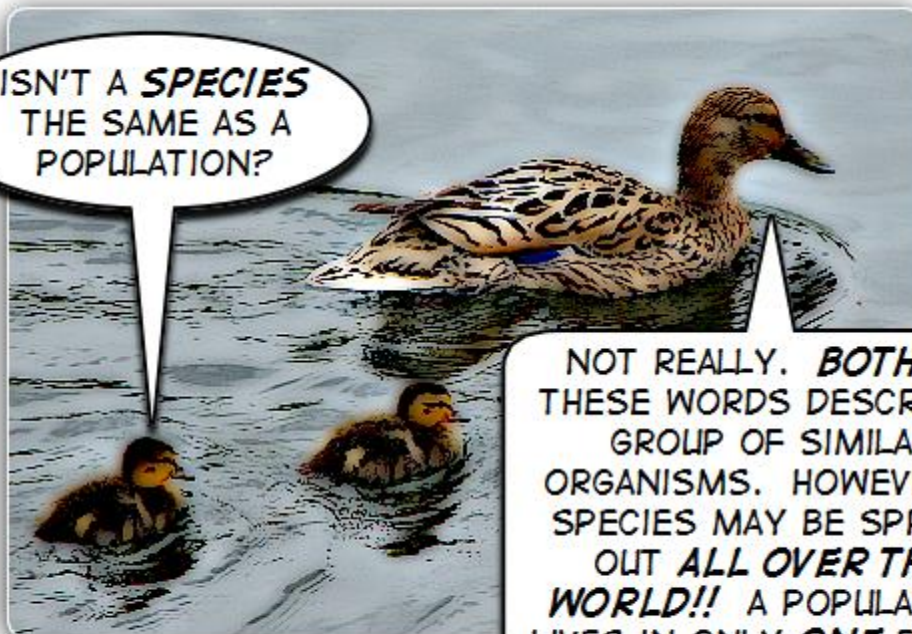
Humans have no feathers, no beaks, no claws and we do not crow during the day...



YOU THINK
WE ARE
LOUD, EH?

HAVE YOU
LISTENED TO
ANY OF **YOUR**
MUSIC LATELY?
GEESH!

ISN'T A **SPECIES**
THE SAME AS A
POPULATION?



NOT REALLY. **BOTH** OF
THESE WORDS DESCRIBE A
GROUP OF SIMILAR
ORGANISMS. HOWEVER, A
SPECIES MAY BE SPREAD
OUT **ALL OVER THE**
WORLD!! A POPULATION
LIVES IN ONLY **ONE** PLACE.

So... we have a species of humans and species of chickens
and species of pond slime and species of zebras and species
of bananas and species of fish and species of apples
and species of dogs and species of pigs and
species of monkeys and species of
tomatoes and species of
butterflies and species
of lions and species
of elephants and
so on...

*FOR EXAMPLE, I GO FISHING FOR A SPECIES OF FISH
KNOWN AS RAINBOW TROUT. THIS POPULATION OF
RAINBOW TROUT LIVES IN SOUTHERN MISSOURI. THIS
SAME SPECIES OF TROUT (RAINBOW TROUT) CAN BE
FOUND IN OTHER POPULATIONS AROUND THE WORLD.*



*PHOTO OF THE AUTHOR CATCHING HIS DINNER. SHORTLY AFTER CATCHING
HIS MEAL, THE AUTHOR SLIPPED ON A ROCK AND LET GO OF HIS CATCH.
THE FISH WAS LAST SEEN LAUGHING AS HE SWAM DOWNSTREAM...*

In the
next
chapter,
you are
going to
explore
how
different
plant
species
grow!

Fill in the "code" to answer the following question:

What is the difference between a "species" and a "population"?

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
15	1	26	8	3	12	24	2	9	10	11	4	23	22	5	17	7	20	18	14	16	6	21	25	13	19

_____ _____ _____ _____
 15 4 4 5 20 24 15 22 9 18 23 18 5 12 14 2 3 18 15 23 3

_____ _____ _____ _____ _____
 18 17 3 26 9 3 18 23 15 13 5 20 23 15 13 22 5 14

_____ _____ _____ _____ _____ _____
 4 9 6 3 9 22 14 2 3 18 15 23 3 15 20 3 15 9 12

_____ _____ _____ _____ _____ _____
 14 2 3 13 8 5 14 2 3 13 15 20 3 11 22 5 21 22 15 18

_____ _____ _____ _____ _____
 15 17 5 17 16 4 15 14 9 5 22

Match the words in the first column to the best available answer in the second column.

- | | |
|--------------------|--|
| — Inherited traits | 1) a group of similar and related organisms that may or may not be living in the same area |
| — Offspring | 2) a feature (like eye color, height, hair color...) that you get from your parents |
| — Species | 3) a parent's baby |

Which one is right? Circle the correct answer.

1. You inherited your traits from your _____.

- a. mother
- b. both your mother and father
- c. father

2. Which of these pairs of animals do not match?

- a. deer and cub
- b. dog and puppy
- c. cat and kitten

3. Which of the following is not an inherited trait?

- a. hair color
- b. rolling your tongue
- c. painting a picture

4. A species is a _____.

- a. a group of similar organisms living in the same place
- b. a group of similar organisms
- c. a group of organisms living in the same habitat

5. A population is a _____.

- a. a group of similar organisms living in the same habitat
- b. a group of similar organisms
- c. an organism that is living in a habitat

6. The offspring of a plant would be a _____.

- a. fruit
- b. another plant
- c. flower