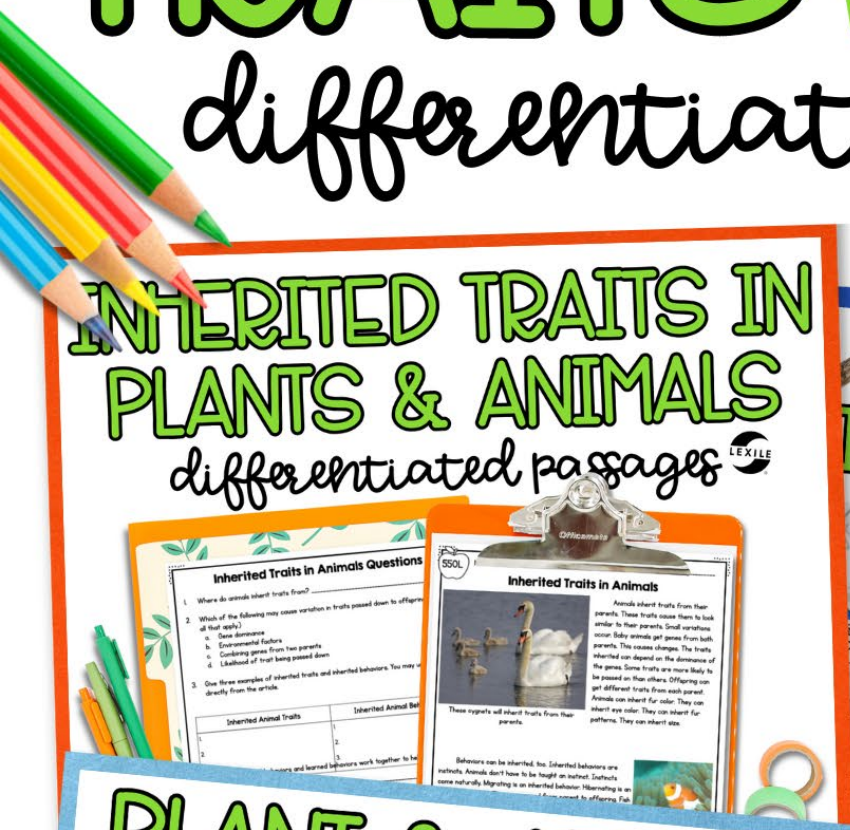
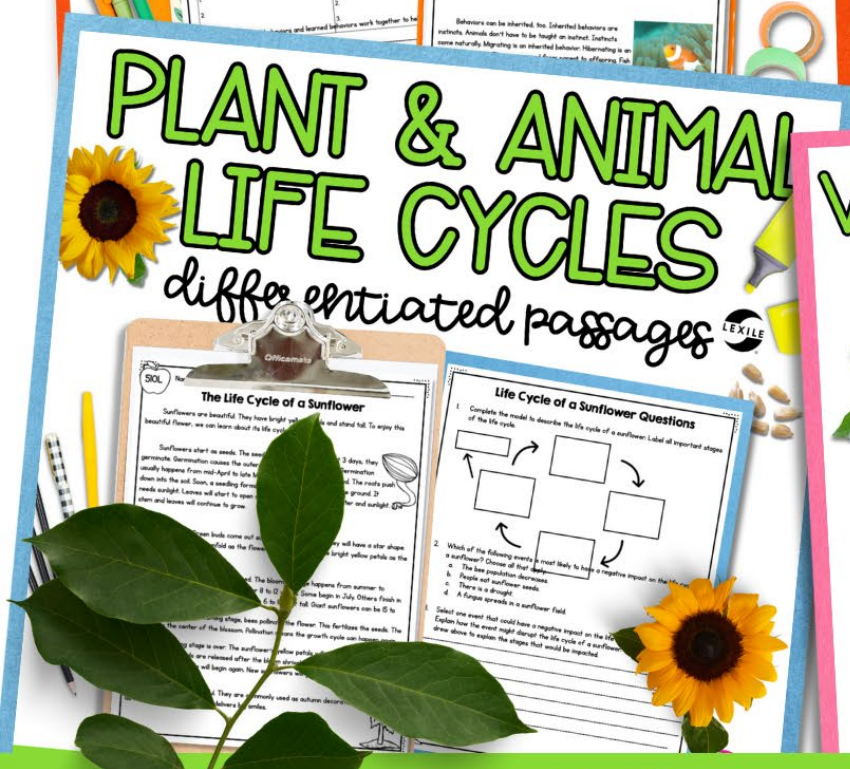
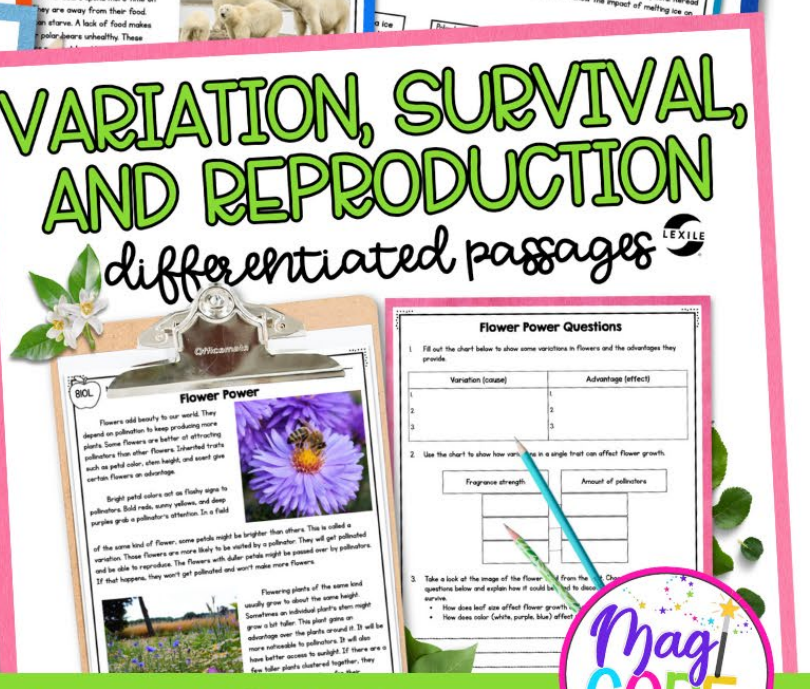
LIFECYCLES & TRAITS bundle

differentiated passages LEXILE







3rd Grade NGSS

ABOUT LEXILE LEVELS

MagiCore is a certified Lexile® Partner. These texts are officially measured and approved by Lexile and MetaMetrics® to ensure appropriate rigor and differentiation for students.

The Lexile Framework® for Reading measures are scientific, quantitative text levels. When the Lexile of a text is measured, specific, measurable attributes of the text are considered, including, but not limited to, word frequency, sentence length, and text cohesion. These are difficult attributes for humans to evaluate, so a computer measures them.

Common Core State Standards uses Lexile level bands as one measure of text complexity. Text complexity ranges ensure students are college and career ready by the end of 12th grade. Lexile measures help educators scaffold and differentiate instruction as well as monitor reading growth.

Grade Band	Lexile® Bands Aligned to Common Core Expectations
K-1	N/A
2-3	420L-820L
4-5	740L-1010L
6-8	1185L-1385L

Keep in mind when using any leveled text that many students will need scaffolding and support to reach text at the high end of their grade band. According to Appendix A of the Common Core Standards, "It is important to recognize that scaffolding often is entirely appropriate. The expectation that scaffolding will occur with particularly challenging texts is built into the Standards' grade-by-grade text complexity expectations, for example. The general movement, however, should be toward decreasing scaffolding and increasing independence both within and across the text complexity bands defined in the Standards."

Plant and Animal Life Cycles

3rd grade

Table of Contents

1. How to Use This Resource
2. The Life Cycle of a Honeybee (490L, 770L)
3. The Life Cycle of a Bat (470L, 780L)
4. The Life Cycle of a Sea Turtle (500L, 790L)
5. The Life Cycle of a Strawberry (480L, 810L)
6. The Life Cycle of an Apple Tree (490L, 800L)
7. The Life Cycle of a Sunflower (510L, 820L)

Each passage set includes two differentiated passages on a third-grade level (one at the beginning of the band, one towards the end) and a question set geared towards comprehension and science mastery. The first question is differentiated to include a fill-in-the-blank diagram (lower complexity) or an open-ended diagram (higher complexity).

490L

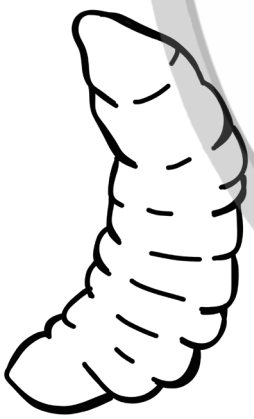
Name: _____ Date: _____

The Life Cycle of a Honeybee

Honeybees have been around for 150 million years. That is much longer than humans! Honeybees help plants. Their life cycle helps the earth.

The life cycle starts with the female queen. The queen mates with the male **drones**. The queen leaves the hive. After, she returns to the **colony**. She lays eggs in the hive.

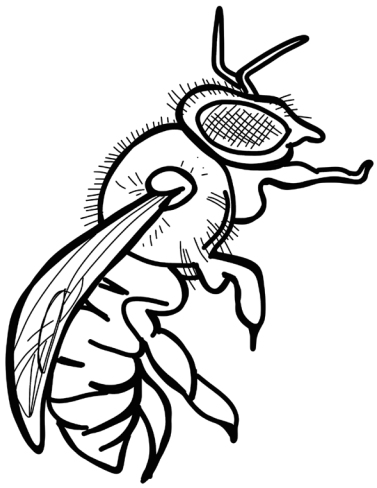
There are four stages in the honeybee life cycle. The first stage is the egg. The queen lays eggs in the hive. She can lay up to 3,000 eggs per day. The egg is tiny. It is in a cell. On the third day, it falls to its side. Some eggs will be females. Females become worker bees or queens. Males will become drones.

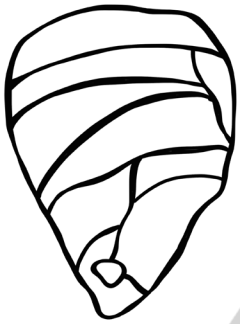


The second stage is the **larva** stage. After three days, the egg grows into a larva. The larva looks like a small, white worm. Young worker nurse bees feed the larva. The nurse bees make a jelly. The larva eats this jelly. The larva will **molt** as it grows. It sheds its skin. The egg cell is covered in a layer of wax by worker bees.

In the third stage, the larva spins a cocoon around itself. It is called a **pupa**. It starts to look more like a honeybee. It grows wings, legs, a head, a **thorax**, and an **abdomen**.

The last stage is the adult. The honeybee is fully-grown. It will chew through the wax covering on the egg cell. A queen bee will take about 16 days to grow into an adult. Worker bees need between 18 and 22 days. Drones need about 24 days.

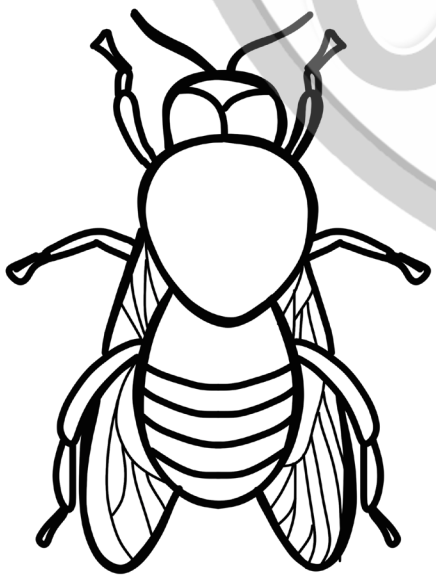




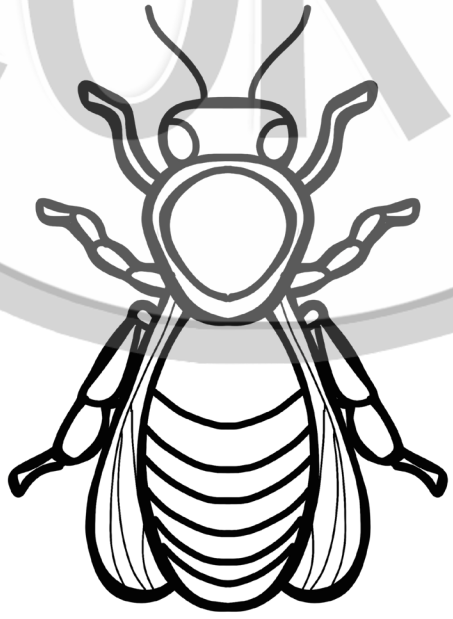
Nest

The lifespan of honeybees is different. Drones live an average of 55 days. If a drone mates with a queen, they die after. Worker bees raised during the spring and summer can live 6 or 7 weeks. Worker bees can live 4 to 6 months in the fall. A queen honeybee can live 2 to 4 years.

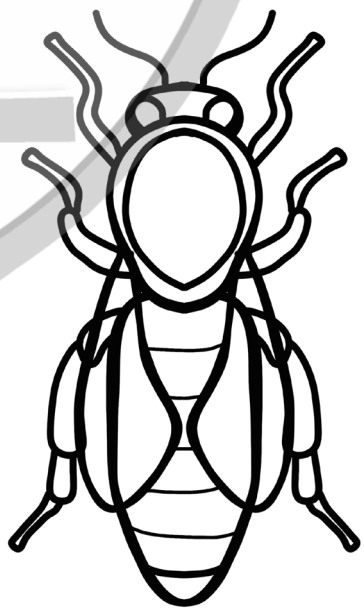
All bees go through these four main stages. Honeybees are **pollinators**. They help plants grow. Without them, many plants would die. Honeybees are important to our **ecosystem**. Learning the honeybees' life cycle can help us protect them.



Drone



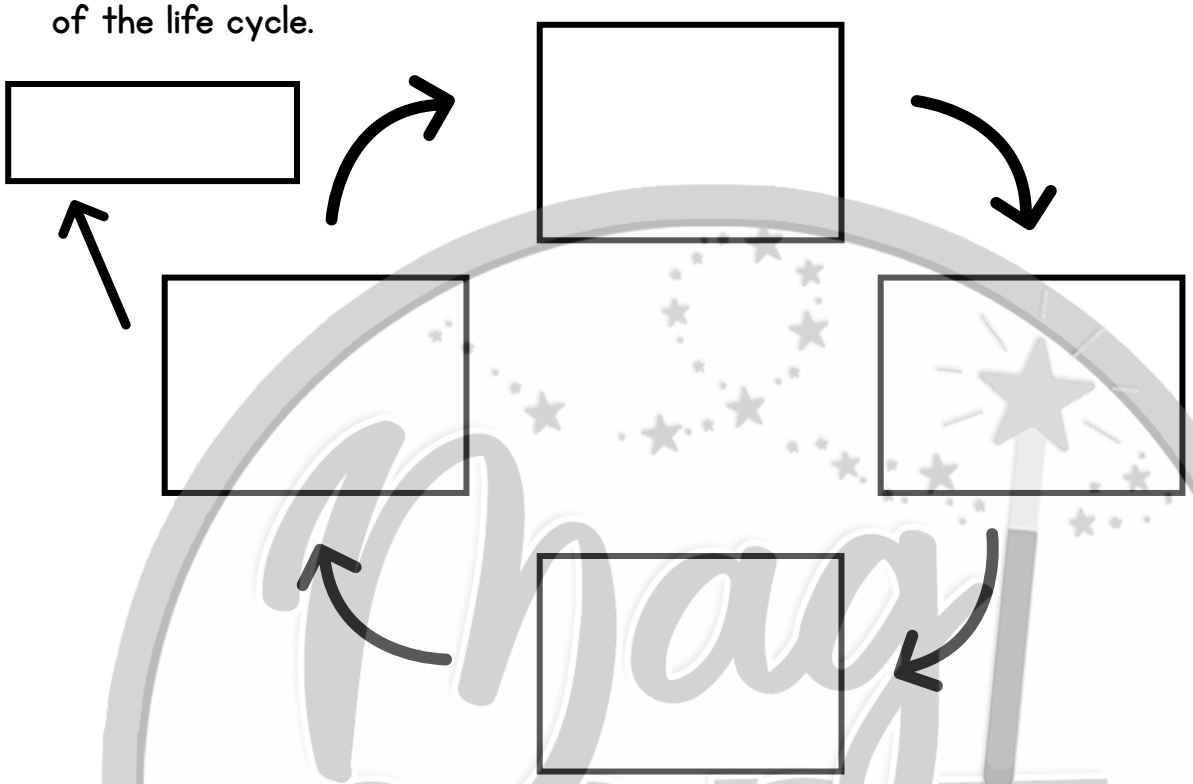
Worker Bee



Queen Bee

Life Cycle of a Honeybee Questions

1. Complete the model to describe the life cycle of honeybees. Label all important stages of the life cycle.



2. Which of the following events might negatively impact the life cycle of a honeybee?
   a. People eat honey.
   b. People start a honeybee farm.
   c. A community sprays pesticides in their yards.
   d. A community grows a new field of flowers.

3. Explain how the event you chose might disrupt the life cycle of a honeybee. Use the model you drew above to explain the stages that would be impacted.

500L

Name: _____ Date: _____

The Life Cycle of a Sea Turtle

There are seven species of sea turtles. Six species are **endangered**. Humans are the biggest threats to sea turtles. Sea turtles are hunted for their eggs, meat, and shells. Their **habitats** are being destroyed. Climate change affects them. To save sea turtles, we should learn about their life cycles.

First, a female sea turtle is ready to nest. She comes ashore at night. Then, she digs a hole in beach sand. She uses her flippers to dig. She lays between 50–200 eggs in the nest. Eggs have soft shells. They are the size and shape of ping-pong balls. They are white or cream in color. The female covers the nest with sand. Then, she returns to the ocean. It takes 60–80 days for the babies to hatch from the eggs. Predators often eat sea turtle eggs. Humans have built houses and other structures along beach areas. This creates light, which makes it hard for sea turtles to return to the ocean.

Next, the eggs **hatch**. Baby sea turtles normally hatch at night. They break through their eggshells. Then, they dig in the sand to reach the surface. This can take a few days. The babies are in the open. They are **vulnerable** to birds and other predators. They run to the water for safety. Most hatchlings don't survive. They face many dangers.

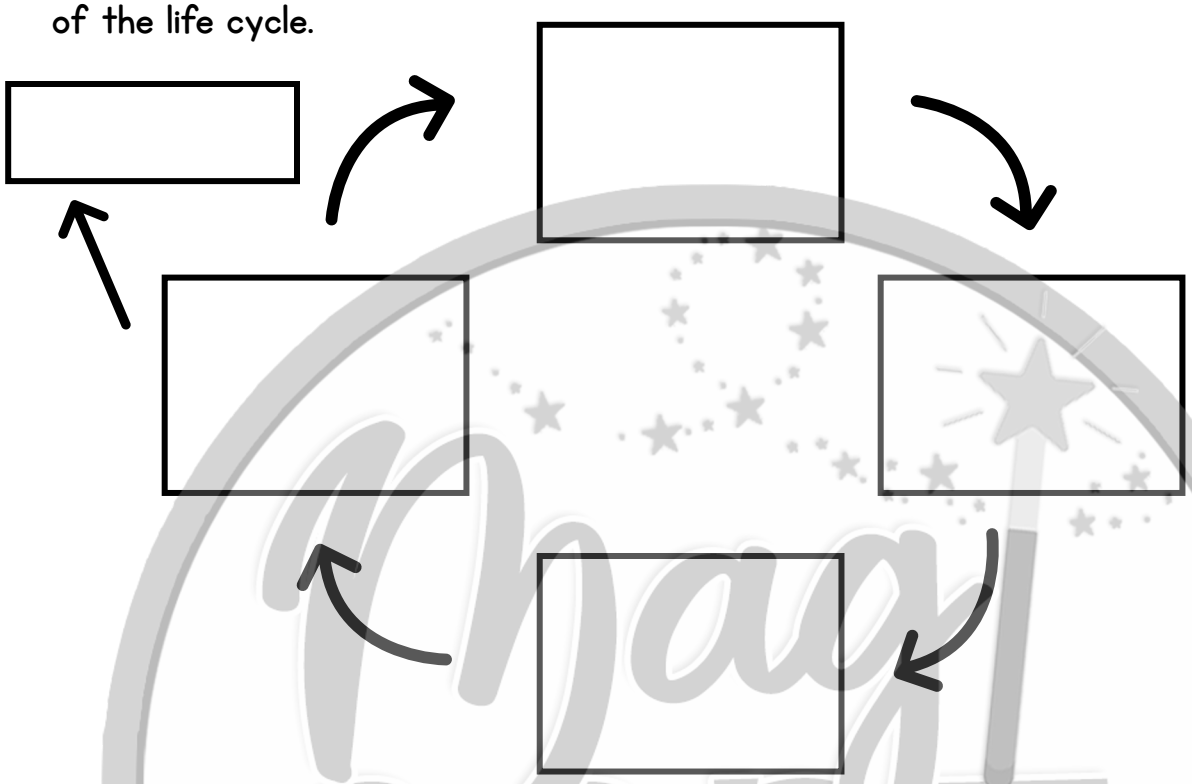
Sea turtles that survive grow into **juveniles**. They eat seagrass and plankton. They stay in the ocean for a few years to a decade. Juveniles **mature** to sub-adults. They migrate toward the shore. Here, they feed on different food, such as algae. It's more dangerous by the shore. There are more predators.

Finally, sea turtles can mate and have babies. They are adults. They may travel thousands of kilometers. They mate near beaches. Females may lay 1-8 **clutches** of eggs. The males go back to areas with food. They restore their energy. The eggs are laid. The cycle begins again.

Humans can help sea turtles. We can help them cycle through these stages. We can help prevent marine pollution that harms sea turtles. We can also watch nesting beaches and help keep the conditions safe for the eggs and hatchlings. Finally, we can take steps to limit **climate change** and **global warming,** which is very important. The more we learn about sea turtles, the more we can protect them.

Life Cycle of a Sea Turtle Questions

1. Complete the model to describe the life cycle of sea turtles. Label all important stages of the life cycle.



2. Which stage of the sea turtle's life cycle is shown in the photograph?

3. The article describes many events that can disrupt the life cycle of a sea turtle. Choose one event. Use the model you drew above to explain the stages that would be impacted.

Inheritance and Variation of Traits

3rd grade

Table of Contents

1. How to Use This Resource
2. Inherited Traits in Plants (480L, 800L)
3. Inherited Traits in Animals (550L, 790L)
4. Hemmingway's Polydactyl Cats (470L, 810L)
5. Mendel's Pea Plants (560L, 820L)
6. Flower Fields (430L, 810L)
7. Inherited Traits in Cats and Kittens (460L, 790L)

Each passage set includes two differentiated passages on a third-grade level (one at the beginning of the band, one towards the end) and a question set geared towards comprehension and science mastery. The first question is differentiated to include a fill-in-the-blank diagram (lower complexity) or an open-ended diagram (higher complexity).

480L

Name: _____ Date: _____

Inherited Traits in Plants

Living things have **traits**. A trait is a characteristic. What something looks like is a trait. Ability is a trait. Traits can be inherited. An inherited trait comes from the parents. It is passed to the **offspring**. Height is inherited. Color is inherited. Shape and size are inherited. A cactus inherits spines. An evergreen tree inherits needles. Plants have inherited abilities. Roots grow down. Stems grow up. Leaves face the sunlight. Inherited abilities help the plants to survive.

The traits that get passed from parent plants to offspring plants depend on the **genes** of the parent plants. Genes carry information. These genes from parent plants combine in the offspring plant. Some traits will be shared between parent plants and offspring plants. Other traits will not. This is why parent plants and offspring plants have **similarities** and **differences**.

Traits may also be **acquired**. This means they are not inherited. Acquired traits happen to the plant. The plant learns to survive. A tree that has been slashed by a saw blade will have a scar on its bark. That scar didn't come from the parent trees. It will not be passed to the next generation of trees. Acquired traits are a response to something that happened in the plant's environment.

We can **analyze** inherited traits. Look at similarities and differences in plants. The plants can be **classified**. They can be sorted into groups based on features. Analyzing traits helps us see patterns. These patterns help us understand plants.

800L

Name: _____ Date: _____

Inherited Traits in Plants

Every living thing has **traits**. A trait is a characteristic. It includes things like physical features and certain abilities. When a trait is **inherited**, it comes from the parents. It is passed to the **offspring**, or the young of a species. In plants, characteristics such as height, flower color, and leaf shape are all inherited physical features. A cactus, for example, inherits spines. An evergreen tree inherits needles. Roots growing down, stems growing up, and leaves facing the sunlight are examples of inherited abilities. These abilities allow plants to survive in their environments.

The traits that get passed from parent plants to offspring plants depend on the **genes** of the parent plants. Genes carry information. The way these genes from parent plants combine in the offspring plant affects the results. Some traits will be shared between parent plants and offspring plants. Other traits will not. This is why parent plants and offspring plants have **similarities**, ways they are alike, and **differences**, ways they are not alike.

Traits may also be **acquired traits**. This means they are received without being inherited. A tree that has been slashed by a saw blade will have a scar on its bark. That scar didn't come from the genes of its parent trees. It will not be passed to the next generation of trees, either. These types of traits are often seen in response to something unexpected that occurred in the plant's environment.

Inherited traits in plants allow them to be **analyzed**. A viewer can note similarities and differences in plants. The plants can then be **classified**. They can be sorted into groups based on features. This type of study may cause patterns to be observed. These patterns add to our understanding of plants and how their inherited traits help them live.

Inherited Traits in Plants Questions

1. List three traits of the cactus below.

1. _____

2. _____

3. _____

2. Give three examples of acquired and inherited plant traits.

Acquired Plant Traits	Inherited Plant Traits
1.	1.
2.	2.
3.	3.

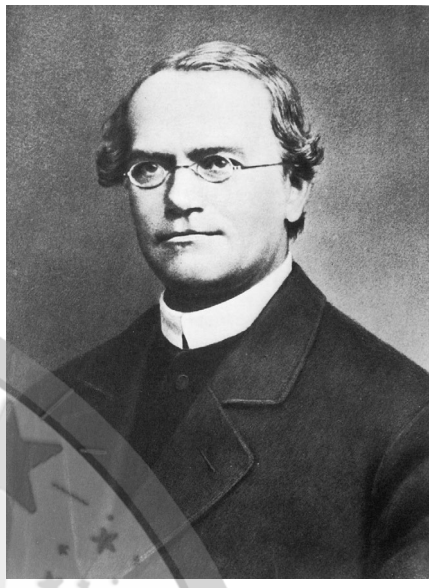
3. Circle whether each trait is an acquired trait or an inherited trait.

- A tall tree has a wound from being struck by lightning. acquired / inherited
- A flower is red with orange streaks. acquired / inherited
- A spider plant has holes due to an insect infestation. acquired / inherited
- A sunflower has a bent stem due to strong winds. acquired / inherited
- A flower has curved petals. acquired / inherited
- A green apple tastes sour. acquired / inherited

820L

Name: _____ Date: _____

Mendel's Pea Plants



Johann Gregor Mendel

Traits such as eye color, height, and hair color are passed from parents to children. This is called **heredity**. These traits are inherited through genes. **Genetics** is the study of heredity. Much of what we know about genetics is due to a curious monk from the 19th century. Johann Gregor Mendel is known as the "father of genetics." His work allowed scientists to understand how traits were passed from parents to offspring.

Mendel used pea plants to do his research. He chose these plants because they were easy to work with. They can **self-pollinate**. They can also be **cross-pollinated**. A plant is self-pollinated if pollen is transferred to it from any flower of the same plant. Cross-pollination, however, means pollen from one flower on one plant is moved to the **stigma** of another plant. Pea plants also have several traits that are simple to identify. Mendel studied seven traits. He looked at seed color, seed shape, flower position, flower color, pod shape, pod color, and stem length.

Before he began his experiments, Mendel grew pea plants with two forms of a feature. The features might be tall and short or white flower and purple flower. He grew these for several generations until he had **pure-bred** plants. Next, Mendel bred them to each other to create a second generation. Then, he took plants from this second generation with the same traits and bred them again, which produced a third generation. He carefully observed the results.

Pea Plant

Purple-Flowering Pea Plant

These experiments revealed interesting **patterns**. Mendel found that one trait was always **dominant** in the first generation. For example, when he combined a white-flowering pea plant with a purple-flowering one, *all* the offspring had purple flowers. He concluded that the dominant trait was purple flowers. White flowers were hidden. This is called the **recessive** trait. The same thing happened with the height trait.

Another pattern was found when the pea plants with the dominant trait self-pollinated. In this generation, 75% of the offspring showed the dominant trait. Only twenty-five percent showed the recessive trait. This means that of four offspring pea plants, 3 of them would show purple flowers while 1 out of the 4 would be white.

Mendel was able to repeat these experiments. He got the same results every time. Other scientists of the time believed in different theories about inheritance. They thought traits were blended from parents in offspring. Mendel's experiments, however, showed that not to be true. If blending really occurred, purple pea plants bred with white pea plants would have produced pink pea plants. In 1868, Mendel decided to focus more on his duties as a monk than on science. His work wasn't picked up again until 1900 by other scientists studying heredity. They proved Mendel's findings to be correct.

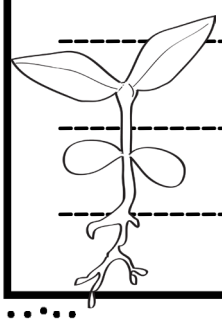
Mendel's Pea Plants Questions

1. What is Johann Gregor Mendel known for?

2. Why were pea plants a good subject to study for this experiment?

3. What two major patterns did Mendel discover?

4. Why are Johann Gregor Mendel's experiments important to the field of science and heredity?



Environmental Influence on Traits

3rd grade

Table of Contents

1. How to Use This Resource
2. Polar Bears in Trouble (510L, 820L)
3. City Coyotes (490L, 790L)
4. Rescuing Rice (480L, 810L)
5. Thirsty Corn (500L, 800L)
6. Adapting to Wildfire (490L, 810L)
7. Do You Smell That? (490L, 770L)

Each passage set includes two differentiated passages on a third-grade level (one at the beginning of the band, one towards the end) and a question set geared towards comprehension and science mastery. The first question is differentiated to include a fill-in-the-blank diagram (lower complexity) or an open-ended diagram (higher complexity).

How to Use This Resource

This resource was created with the NGSS Science Standards in mind. It includes six differentiated passages aligned to the following standard:

3-LS3-2: Environnemental Influence on Traits

Use evidence to support the explanation that traits can be influenced by the environment. (Cause and Effect)

Clarification Statement: Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted; and a pet dog that is given too much food and little exercise may become overweight.

Here are some suggestions for using these passages:

- Use as independent work after you have taught an overview of this standard. Assign the different levels based on the passage students can read and comprehend independently.
- Use as a reading center to reinforce key comprehension and science concepts at the same time!
- Use as a homework or review packet.
- Use as an intervention for students who need to revisit science concepts.

510L

Name: _____ Date: _____

Polar Bears in Trouble

Climate change is a problem. Humans are causing climate change. Changes in the environment make it hard for wildlife to **adapt**. Scientists have even seen changes in some animals' genes. This **causes** problems for those animals.

The polar bear is an example. Polar bears live in the Arctic. They live in a cold climate. They need sea ice to travel. They need seals to eat. Global warming melts the ice. Polar bears spend more time on land. They are away from their food. They can starve. A lack of food makes mother polar bears unhealthy. These mothers may not be able to feed their cubs. They will have fewer cubs. The populations shrink.

There are other problems for polar bears. Polar bears in Norway showed a loss in **genetic diversity**. Melting sea ice is shrinking the polar bears' **habitat**. There were fewer polar bears to breed. The next **generations** might not be as healthy.

We can help polar bears. We can use solar and wind energy. They don't cause global warming. "Adopting" polar bears can help. This gives money for studying the effects of climate change.

Polar Bears in Trouble Questions

1. The article lists two environmental factors that impact the traits of polar bears. Fill cause and effect relationships below.

Environmental Factors (Cause)	Variation in Traits (Effect)
1. Arctic ice is melting due to global warming.	1.
2.	2. Polar bears produce less offspring.

2. Oftentimes, there is more than one effect that an environmental factor impacts. Reread the passage and fill in the cause-and-effect chain to show the impact of melting ice on polar bears.

3. Chose one of the following environmental factors that might impact polar bears. How might this factor cause a change in polar bear traits?

- Polar bears are exposed to toxic chemicals in their food.
- Humans develop oil in the Arctic.

820L

Name: _____ Date: _____

Polar Bears in Trouble

Climate change is happening. Human activity is mostly to blame. Earth is warming at an alarming rate due to all the carbon dioxide in its atmosphere. This extra carbon dioxide comes from fossil fuels. Changes in weather patterns and the environment make it difficult for wildlife to **adapt**. Scientists have even seen changes in some animals' **genes**. This could **cause** trouble for those animal populations.

Take the polar bear, for example. Polar bears live in the Arctic. They survive in cold climates. Lots of sea ice to travel on and seals to eat are important to them. With ice melting because of global warming, polar bears spend more time on land. More time on land means they are away from their major food source. Starvation is a real possibility. A lack of food creates mother polar bears that are unhealthy. These females may not be able to produce milk for their cubs. If polar bears stop having babies, the population will grow smaller.

The problems aren't limited to food troubles, though. Global warming changes **genetic** information. A study of polar bears in Norway showed the animals had a 10% loss in **genetic diversity**. Melting sea ice made the polar bears' natural **habitat** shrink. Polar bears in a smaller area mean there are fewer mating options. When closely related polar bears breed, this affects the health of the next **generations**. Traits that were **recessive**, or hidden, could be revealed. Inherited illnesses or an inability to produce **offspring** may be the result.

It's not too late to help wildlife. For example, we can switch to **renewable energy** such as solar and wind instead of using fossil fuels. "Adopting" endangered animals through wildlife organizations is another way to help. It provides money for more research into climate change and its effects.

Polar Bears in Trouble Questions

1. The article lists two environmental factors that impact the traits of polar bears. Fill cause and effect relationships below.

Environmental Factors (Cause)	Variation in Traits (Effect)
1.	1.
2.	2.

2. Oftentimes, there is more than one effect that an environmental factor impacts. Reread the passage and fill in the cause-and-effect chain to show the impact of melting ice on polar bears.

3. Chose one of the following environmental factors that might impact polar bears. How might this factor cause a change in polar bear traits?

- Polar bears are exposed to toxic chemicals in their food.
- Humans develop oil in the Arctic.

810L

Name: _____ Date: _____

Rescuing Rice

Many people around the world enjoy eating rice. It's quick to cook and a healthy food choice. Growing rice, however, is not as easy. Most rice is grown in fields known as paddies. These paddies are typically filled with about 10 centimeters of water. It's important to keep the water level consistent. If it gets too high or too low, disaster can strike the rice crop.

Unfortunately, global warming is harming rice. Changes in weather patterns cause **droughts** and floods. A drought is when there is little rainfall. This causes crops to not get the water they need. Floods, on the other hand, mean too much **precipitation**. The **effects** are poor development and less production of rice overall.

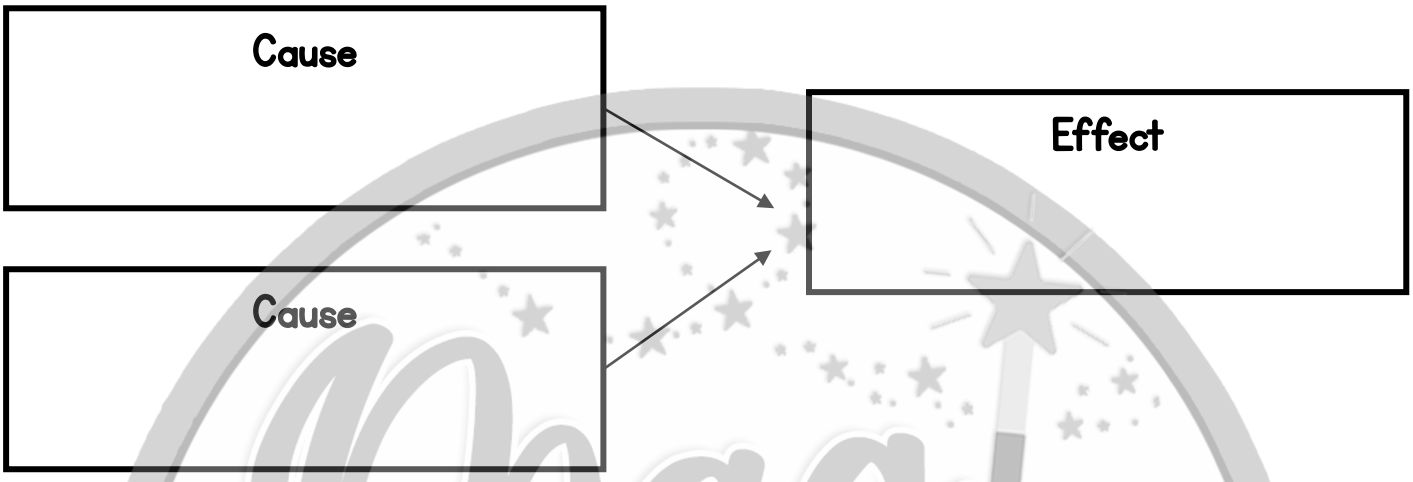
Water isn't the only problem. Hot days and cooler nights are the best conditions for growing rice. Temperatures, however, are warming up around the globe due to climate change. Rice plants are **vulnerable** to heat stress during their growth cycles. Extreme heat can mean the destruction of rice crops. With higher temperatures, the risk of disease in the rice plants also increases.

Humans are trying to help rice crops survive. New **irrigation** methods for rice paddies have been tested with some hope. An even more interesting solution involves scientists working with rice **genes**. Rather than controlling the growing **environment** for the rice, scientists are **experimenting** with changing the rice itself. They are breeding new forms of rice plants. They use various rice seeds from around the globe to do this. Combining the **genetic** material from different rice seeds can create sturdier rice plants. These new **breeds** can withstand droughts and floods. Scientists try new mixes then **analyze** the results. One gene, in particular, helps rice live during long periods with too much water. Rice plants made with this gene, called "scuba rice," can live for two weeks underwater. This is great news for farmers growing rice in areas that often flood.

More genetic study needs to be done. New combinations of genes could be discovered. Producing rice plants that **inherit** traits to make them survivors will benefit everyone.

Rescuing Rice Questions

1. The article lists some ways global warming affects the traits of rice. Fill in the chart to show these effects.



2. How can scientists change the genetics of rice to make tougher plants? What traits would be desirable?

---

3. Describe what effect the following environmental factor might have on rice:
   a. There is half the amount of annual rainfall this year.

770L

Name: _____ Date: _____

Do You Smell That?

Different **species** of fish fill bodies of water on Earth. Human activity, however, often **pollutes** these waterways. Metals are among the many **pollutants** humans put into the water. These metals, such as copper and nickel, are causing harmful effects on fish.

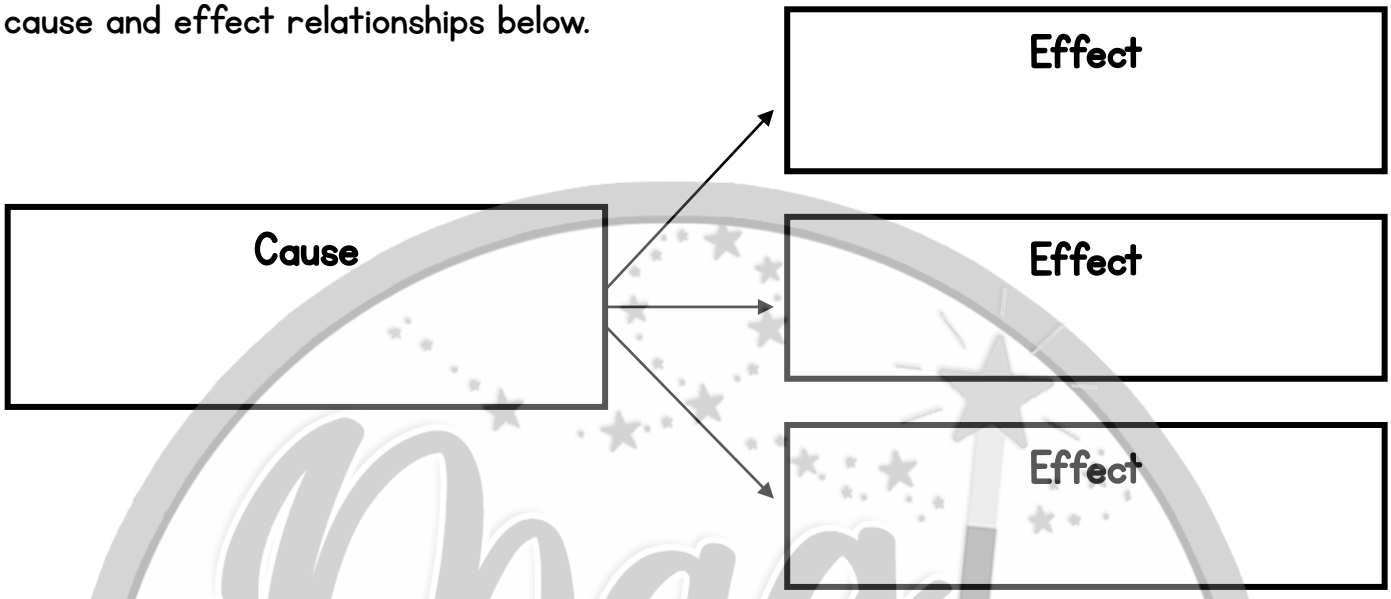
Fish use their sense of smell for three main reasons. The first is to find food. Smell guides them to the right things to eat. Fish also use smell to locate mates so they can reproduce. Finally, fish use their sense of smell to avoid **predators**. Fish are losing the important trait of being able to smell in waters with metals in them. The metals trigger the shutdown of this sense to protect the fish's brain.

An **environment** that causes fish to lose their sense of smell is dangerous. Not being able to find food leads to weight loss or starvation. Being without mates means new fish aren't being born. Becoming easy **prey** for other animals causes a decrease in the number of fish as well. All of this upsets the marine **ecosystem.** It can also lead to some fish becoming **endangered species**.

The good news is that scientists have been **experimenting**. They have worked with fish in water polluted with metals. Researchers have studied a type of fish called yellow perch. These fish have been living in lakes **contaminated** with metals such as mercury, nickel, and copper. Scientists then put the yellow perch into cleaner water. They observed the results. The ability to smell returned to these fish within 24 hours. The inherited trait of smelling was shut off in polluted water. It was turned back on in clean water. This shows that efforts to rid water of pollution are important to preserving marine **organisms**.

Adapting to Wildfire Questions

1. The article lists the ways the environmental factor of water pollution affects fish. Fill cause and effect relationships below.



2. All of these effects on fish can cause an overall effect on the fish population. If the 3 effects described above happen, what could happen to the fish population?

---

3. The scientists have tested the effect of moving the fish to cleaner water on their sense of smell. What is something else they could test the effects of to learn more about fish and their survival in water with pollution?

Variation, Survival and Reproduction

3rd grade

Table of Contents

1. How to Use This Resource
2. Flower Power (520L, 820L)
3. Peacock Tails (440L, 830L)
4. Penguin Picking (480L, 770L)
5. Venus Flytrap Variations (480L, 620L)
6. Camouflaging the Peppered Moth (520L, 760L)
7. Beetle Size (490L, 760L)

Each passage set includes two differentiated passages on a third-grade level (one at the beginning of the band, one towards the end) and a question set geared towards comprehension and science mastery. The first question is differentiated to include a fill-in-the-blank diagram (lower complexity) or an open-ended diagram (higher complexity).

520L

Name: _____ Date: _____

Flower Power

Flowers are beautiful. They depend on pollination to survive. Some flowers are better at attracting **pollinators**. Flowers that attract more pollinators have an advantage. **Traits** that attract pollinators are petal color, stem height, and scent.

Bright colors are signs to pollinators. Bold reds and sunny yellows grab attention. Pollinators like deep purples. Some petals are brighter than others. This is called a **variation**. Those flowers are more likely to be visited by a pollinator. They will get pollinated. Then they will be able to reproduce. The flowers with duller petals might be passed over. Pollinators won't notice them. If that happens, they won't get pollinated. They won't make more flowers.

Flower field with a variety of flowers.

Plants of the same kind are about the same height. Sometimes a single plant grows taller. This plant gains an advantage. It will stand out to pollinators. It gets more sunlight. A group of taller plants creates a problem for shorter plants. The tall plants have big shadows. The shorter plants will get less sunlight. The taller plants could get even taller. Then the shorter ones could wilt and die.

Night blooming jasmine in full bloom.

Scent is another important trait of flowers. This is especially true in darkness. Colors are not seen as well in the dark. Night-blooming flowers still need to attract pollinators. They have to use another strategy. They use their scent. It attracts nighttime pollinators. Some flowers have a stronger, sweeter smell than others. Pollinators like these flowers. They will not visit the less fragrant flowers. This causes better-smelling flowers to survive more often.

Flowers use traits such as showy colors, height, and scent to get what they need. More flowers are able to grow and bloom thanks to these traits. Variations in traits give some flowers advantages. They give other flowers disadvantages.

Flower Power Questions

1. Fill out the chart below to show some variations in flowers and the advantages they provide.

Variation (cause)	Advantage (effect)
1. Bright color	1.
2.	2. Better access to sunlight
3. Strong scent	3.

2. Use the chart to show how variations in a single trait can affect flower growth.

Fragrance strength	Amount of pollinators
No scent →	
Weak scent →	
Strong scent →	

3. Take a look at the image of the flower field from the text. Choose one of the research questions below and explain how it could be used to discover which traits help flowers survive.
   - How does leaf size affect flower growth and reproduction?
   - How does color (white, purple, blue) affect flower growth and reproduction?

480L

Name: _____ Date: _____

Penguin Picking

Penguins are large seabirds. Most live in Antarctica. Penguins do not fly. They have special **genetic traits**. The traits allow them to live in the sea. These traits help them find food, swim, mate, and keep warm in their **environment**.

Variations in traits help in mating. Females choose a male. They want the fittest mates. This helps offspring survive. Females look for larger penguins. They choose fatter penguins. They do not choose skinny ones. Weight is a sign of health. Males with extra weight are more likely to stay in the nest. They can take hunger longer. They won't be tempted to leave for food. Bigger males have a better chance of mating. They also keep eggs safer.

A female penguin will also choose based on males' voices. They want a lower voice. A deep voice usually means the male penguin is larger. Females want larger males. Males with higher voices may be seen as being less healthy. Females won't choose them for mating.

Female penguins notice feather color. They look for bright feathers. Bright colors mean a male is healthy. Dull feathers are not noticed. They make it harder to mate.

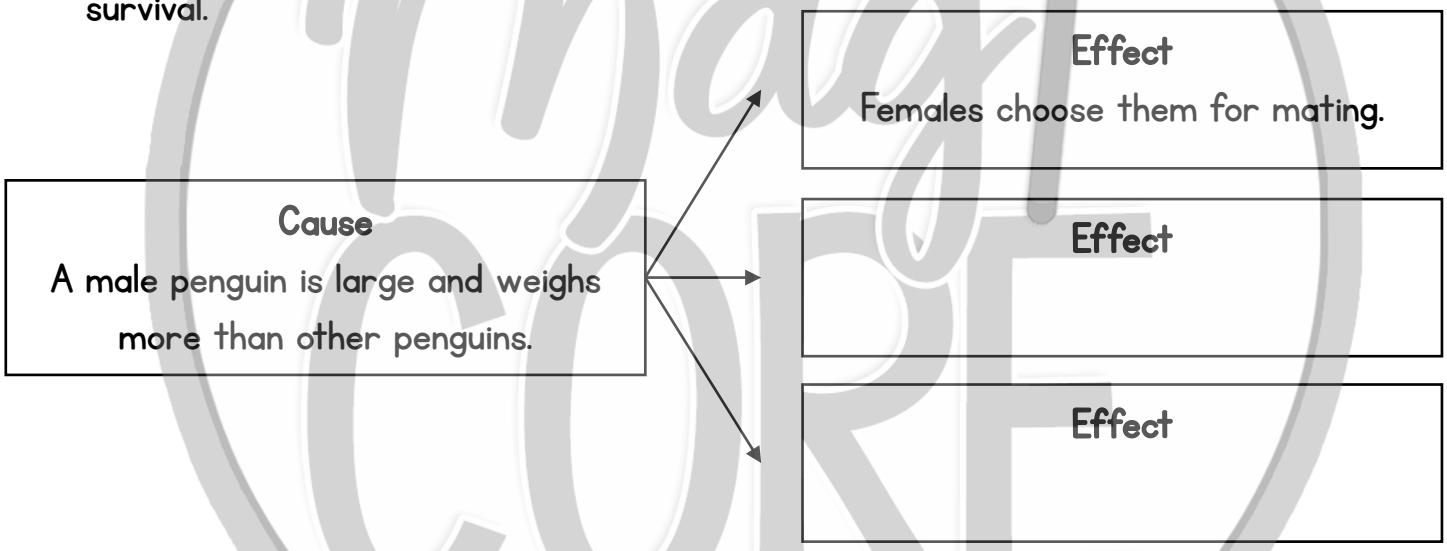
Weight, voices, and feather color are all important. They factor into penguin survival. A male penguin may not be able to mate if he doesn't have the best of these features.

Penguin Picking Questions

1. Fill out the chart below to show some variations in penguins and the advantages they provide.

Variation (cause)	Advantage (effect)
1. Heavier weight	1.
2.	2. Easier mating
3. Bright feathers	3.

2. Use the chart to show how one variation in penguin weight has many effects on their survival.



3. The article mentions the variations that help male penguins survive. Which of these traits do you think would make a difference in female penguins' survival? Explain.
   - Weight
   - Voice depth
   - Feather color

Terms of Use

How Can I Use This Resource?

Thank you for trusting MagiCore. Our mission is to create resources that support teachers and promote student success. Please note that this resource is licensed for use by a single teacher in a classroom setting. If you need to use this resource with more than one teacher and/or across multiple classrooms, additional licenses are available at a discount. You can purchase additional licenses by visiting your TPT "Purchases" page and then selecting "Download Additional Licenses" or by contacting me at julie@magicorelearning.com.

Good to Go

- Use this resource personally or with your own children.
- Use this resource in your own classroom with your students.
- Provide this resource to your students to use at your instruction.
- Print and/or copy for use in your own classroom.
- Provide printed pages to a substitute teacher with the sole purpose of instructing your students.
- Share with your students via a secure document portal or electronic learning platform that requires individual user verification and limits access to only the students in your own classroom (e.g. Google Classroom).
- Review this resource with others with the sole purpose of recommending it to others for purchase, provided you share one of the links below:

https://magicorelearning.com/

https://www.teacherspayteachers.com/Store/Magicore

Not O.K.

- Share with others to use personally.
- Share with others to use in another classroom.
- Print or copy any page(s) and distribute them to other teachers or other classrooms.
- Publish or host online in a manner where any of the material is accessible to anyone who is not a student in your own classroom., including but not limited to personal, classroom, or district websites that are accessible to the general public.
- Use this resource commercially (e.g. Outschool).
- Publish, sell, or otherwise distribute this product to anyone in manner inconsistent with these terms of use.

Let's Connect!

www.magicorelearning.com

https://www.teacherspayteachers.com/Store/magicore

https://www.facebook.com/MagiCoreLearning/

https://www.instagram.com/magicorelearning/

https://www.pinterest.com/cckingdom/pins/

Julie@magicorelearning.com

Looking for more?

Membership Opportunity!

If you love these resources and want access to more, check out my membership opportunity with the Core Kingdom Club.

[Join my MagiCore Club waitlist!]

MagiCore Club opens its membership doors twice a year to offer teachers all the resources you love, with a membership discount. You can also find support through my custom learning plan.

Find out more https://magicorelearning.com/membership

CREDITS