4TH GRADE

Week 4

Instructional Packet

Strangler Figs

by ReadWorks

If plants starred in movies, the strangler fig would be the main character in a horror film. The strangler fig is known in Spanish as *matapalo,* the "killer tree." It can be found in rainforests and other humid environments all over the world. It has an unusual and interesting way of growing because it is an epiphyte. An epiphyte is an air plant that grows on the surface of another plant. This epiphyte can grow figs that many species of birds enjoy. Once birds eat the figs of the epiphyte, they clean their bills and drop fig seeds on high tree branches. Strangler fig seeds then germinate in the rainforest canopy, where there is plenty of sunlight. As a strangler fig seed matures, it begins sending down long roots to the forest ground. Once the roots reach the ground and enter the soil, they weave together and slowly wrap around their host tree. The host tree now must compete with the strangler fig for sunlight and nutrients in the soil. Usually, this process kills the

a strangler fig around its host tree

host and only the fig tree is left. The "trunk" of the fig tree is actually a giant web of roots. These trees are immune from forest clearing by humans because loggers do not like their knotted and twisted wood.

According to historians, the strangler fig played a role in destroying Mayan cities in Central America. Seeds dropped by birds and bats germinated high on the walls of buildings. The roots would force their way between the stone bricks of the walls and would eventually destroy the entire wall.

Although this killer tree may seem like an enemy, it is also an incredible shelter for a diverse group of animals such as bats, birds, rodents, reptiles, and amphibians. Its hollow openings provide protection for many of these organisms. At certain points of the year, fig trees are the only trees producing fruit, and they provide necessary nutrients for primates and birds. Although these python-like trees may seem menacing, their ability to adapt illustrates how necessary it is for plants to compete successfully in order to survive in the rainforest.

Name: _____ **Date:** _____

1. What is an epiphyte?

    A. any plant that kills other plants by sucking out their nutrients

    B. a plant that can be found in rainforests all over the world

    C. a plant that grows well in humid climates

    D. an air plant that grows on the surface of other plants

2. This passage describes strangler figs and their role in the rainforest. What is one way strangler figs are good for the rainforest?

    A. Strangler figs' trunks are actually a tangled web of roots.

    B. Strangler figs block their host tree from getting sunlight and nutrients.

    C. Strangler figs provide food and shelter for many rainforest animals.

    D. Strangler figs' seeds germinate in the top of the rainforest canopy.

3. The text says, "The host tree now must compete with the strangler fig for sunlight and nutrients in the soil. Usually, this process kills the host and only the fig tree is left." What conclusion can be drawn about strangler figs based on this evidence?

    A. Strangler figs are very good at competing for sunlight and nutrients.

    B. Strangler figs squeeze their host trees just like a python squeezes its prey.

    C. Strangler figs' host trees need a huge amount of water to survive.

    D. Strangler figs choose weak host trees to grow on.

4. Strangler figs do not rely on nutrients directly from the surface they are growing on. What evidence from the text best supports this conclusion?

    A. "Usually, this process kills the host and only the fig tree is left. The "trunk" of the fig tree is actually a giant web of roots."

    B. "According to historians, the strangler fig played a role in destroying Mayan cities in Central America. Seeds dropped by birds and bats germinated high on the walls of buildings."

    C. "Once birds eat the figs of the epiphyte, they clean their bills and drop fig seeds on high tree branches."

    D. "Although these python-like trees may seem menacing, their ability to adapt illustrates how necessary it is for plants to compete successfully in order to survive in the rainforest."

5. What is the main idea of this passage?

   A. Strangler figs played a role in destroying Mayan cities in Central America, by growing on and through the walls of buildings.

   B. Strangler figs can be dangerous to other rainforest trees, but they provide food and shelter for rainforest animals.

   C. Strangler figs are the most important food source for rainforest birds who drop their seeds high in the branches of other trees.

   D. Strangler figs are unusual trees that cannot grow on their own; they need the support of other trees to hold them up.

6. Please read the following sentences from the text.

"The 'trunk' of the fig tree is actually a giant web of roots. These trees are **immune** from forest clearing by humans because loggers do not like their knotted and twisted wood."

As used in these sentences, what does the word **immune** mean?

   A. a main cause of something

   B. twisted around something

   C. destroyed by something

   D. protected from something

7. Choose the answer that best completes the sentence below.

Strangler figs destroyed some buildings in ancient Mayan cities _____ their roots grew between the bricks in stone walls, eventually destroying the walls.

   A. meanwhile

   B. because

   C. although

   D. instead

8. How do strangler figs help rainforest animals? Use examples from the text in your answer.

_____

_____

_____

9. How do strangler figs kill other plants? Use examples from the text in your answer.

_____

_____

_____

10. Imagine that a scientist discovered a way to get rid of all strangler fig trees in a rainforest. Is this a good idea or not? Support your answer with details from the text.

_____

_____

_____

WRITING PROMPT

Week 4

Write about a time you were helpful (at home, at school, in the community, a family member).

Multiplication Tables - 2 to 10 practice

Grade 4 Multiplication Worksheet

Find the missing number.

1. ___ × 4 = 28

2. ___ × 7 = 56

3. 2 × ___ = 18

4. 3 × 6 = ___

5. 6 × ___ = 48

6. 9 × 4 = ___

7. 4 × ___ = 12

8. 3 × 10 = ___

9. 9 × 7 = ___

10. ___ × 2 = 14

11. 8 × 8 = ___

12. ___ × 6 = 42

13. 2 × 7 = ___

14. 6 × 9 = ___

15. ___ × 5 = 45

16. 6 × 6 = ___

17. 7 × 7 = ___

18. ___ × 3 = 9

19. ___ × 6 = 48

20. 6 × ___ = 24

21. 8 × ___ = 32

22. 5 × ___ = 20

23. 4 × ___ = 28

24. 5 × ___ = 50

25. 3 × ___ = 24

26. ___ × 10 = 60

27. 3 × ___ = 12

CCSS.MATH.CONTENT.4.OA.A.1
Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7
as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.
Represent verbal statements of multiplicative comparisons as multiplication
equations.

Multiplication Tables - 2 to 12 practice

Grade 4 Multiplication Worksheet

Find the missing number.

1. $4 \times \underline{\qquad} = 32$

2. $\underline{\qquad} \times 10 = 100$

3. $11 \times \underline{\qquad} = 121$

4. $7 \times \underline{\qquad} = 35$

5. $11 \times 10 = \underline{\qquad}$

6. $11 \times \underline{\qquad} = 99$

7. $2 \times \underline{\qquad} = 22$

8. $4 \times 5 = \underline{\qquad}$

9. $\underline{\qquad} \times 2 = 16$

10. $9 \times \underline{\qquad} = 18$

11. $\underline{\qquad} \times 12 = 132$

12. $7 \times 6 = \underline{\qquad}$

13. $8 \times 3 = \underline{\qquad}$

14. $10 \times \underline{\qquad} = 70$

15. $\underline{\qquad} \times 2 = 14$

16. $3 \times \underline{\qquad} = 12$

17. $7 \times \underline{\qquad} = 70$

18. $\underline{\qquad} \times 7 = 42$

19. $10 \times \underline{\qquad} = 110$

20. $\underline{\qquad} \times 4 = 16$

21. $\underline{\qquad} \times 8 = 80$

22. $11 \times 6 = \underline{\qquad}$

23. $7 \times \underline{\qquad} = 77$

24. $3 \times \underline{\qquad} = 33$

25. $\underline{\qquad} \times 12 = 144$

26. $7 \times 7 = \underline{\qquad}$

27. $\underline{\qquad} \times 9 = 72$

CCSS.MATH.CONTENT.4.NBT.B.5
Multiply a whole number of up to four digits by a one-digit whole number, and
multiply two two-digit numbers, using strategies based on place value and the
properties of operations. Illustrate and explain the calculation by using equations,
rectangular arrays, and/or area models.

K5 Learning

Multiplication - commutative property

Grade 4 Multiplication Worksheet

Example: 2 x 4 x 6 = 8 x 6 = 48 or 2 x 4 x 6 = 2 x 24 = 48

Rewrite the equation so it only has 2 factors, then solve.

1. $5 \times 10 \times 6 =$ _____

2. $6 \times 6 \times 4 =$ _____

3. $3 \times 5 \times 4 =$ _____

4. $5 \times 7 \times 2 =$ _____

5. $4 \times 4 \times 4 =$ _____

6. $3 \times 3 \times 4 =$ _____

7. $9 \times 8 \times 6 =$ _____

8. $3 \times 7 \times 10 =$ _____

9. $5 \times 5 \times 6 =$ _____

10. $2 \times 1 \times 2 =$ _____

Multiplication - commutative property

Grade 4 Multiplication Worksheet

Example: 2 x 4 x 6 = 8 x 6 = 48 or 2 x 4 x 6 = 2 x 24 = 48

Rewrite the equation so it only has 2 factors, then solve.

1. $4 \times 2 \times 3 =$ _____

2. $6 \times 4 \times 7 =$ _____

3. $3 \times 5 \times 1 =$ _____

4. $10 \times 1 \times 10 =$ _____

5. $4 \times 6 \times 9 =$ _____

6. $2 \times 3 \times 7 =$ _____

7. $1 \times 1 \times 9 =$ _____

8. $1 \times 5 \times 2 =$ _____

9. $1 \times 10 \times 7 =$ _____

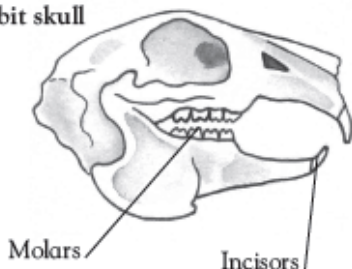10. $9 \times 10 \times 6 =$ _____

Bite on this!

Background knowledge

You have different teeth for doing different jobs. The sharp front teeth, called *incisors*, bite and cut up food. The flat teeth, called *molars*, grind food before it is swallowed. You also have pointed teeth near the front of your mouth that grip and pierce food. These are called *canines*. Animals such as tigers and lions have large canines to catch and kill prey.
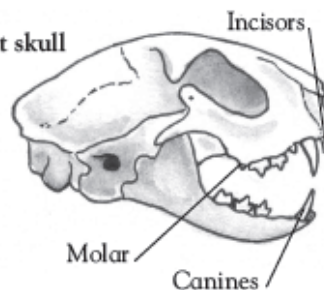
Science activity

An animal's skull clearly shows its teeth. Look at the teeth on the rabbit skull and the cat skull below.

Rabbit skull

Molars

Incisors

Cat skull

Incisors

Molar

Canines

Why does the rabbit have large incisors?

....

Why doesn't the rabbit have canines?

....

How can you tell that the cat catches and eats other animals?

....

Why does the cat have such small incisors?

....
....

Science investigation

Find some pictures to compare human teeth with those of other animals. Compare the teeth of herbivores, carnivores and omnivores. Now look at your teeth in a mirror. How many of each type of teeth do you have? Are you an omnivore, herbivore, or carnivore?

Be kind to Mother Nature!

Background knowledge

The activities of humans can affect the lives of plants and animals. *Pollution* from factories and cars can poison the air and water that plants and animals need to survive. When housing developments, roads, and malls are built, there is less open space for wildlife. Plants and animals need room to grow and reproduce. Humans also need to live and work, but there must be a balance between human need sand the needs of plants and animals. Mother Nature is not happy when the balance is disturbed!

Science activity

Draw a circle around each thing in this picture that could cause harm to animals and plants.
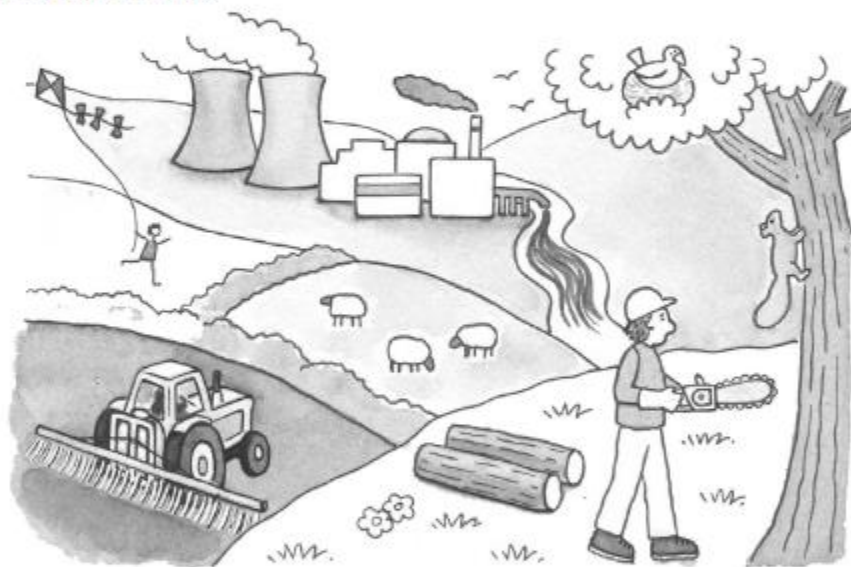
Science investigation

⚠ Take extra care - ask an adult to supervise you.

Learn about local air pollution by attaching some masking tape, sticky side facing the air, to the outside of a window on each side of your house. Leave it there a week. Then use a magnifying glass to look at the tape. Compare it to fresh tape. What can you observe? Explain.

Food to die for

Background knowledge

When living things die, other living things feed on them. If they have a skeleton or shell, it will be the only part left after all the soft parts are eaten. Earthworms feed on dead plants. Other animals, such as the maggots of flies, feed on dead animals. There are also tiny living things called *microbes* that feed on dead plants and animals. Bacteria and some fungi are microbes. When dead things *decay*, they are really being eaten by microbes!

Science activity

Here are some animals found in woodlands, where there are decaying leaves. Can you use this yes/no key to find their names?

Clue 1   Does the animal have six legs? If yes, it is a springtail.
          Does the animal have more than six legs? If yes, go to clue 2.

Clue 2   Does it have eight legs? If yes, it is a harvestman.
          Does it have more than eight legs? If yes, go to clue 3.

Clue 3   Does it have a broad, flat body? If yes, it is a woodlouse.
          Does it have a long, thin body? If yes, go to clue 4.

Clue 4   Does each section of the body have two legs? If yes, it is a centipede.
          Does each section of the body have four legs? If yes, it is a millipede.
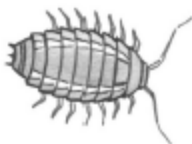
This is a ....

This is a ....

This is a ....

This is a ....

This is a ....

Science investigation

(!) **Take extra care - ask an adult to supervise you.**

Design and conduct an experiment to see what factors in the environment can affect the decay of an apple core. Examples of some factors are temperature, light, and moisture. Only one factor should be tested at a time.

Write the names of the jobs

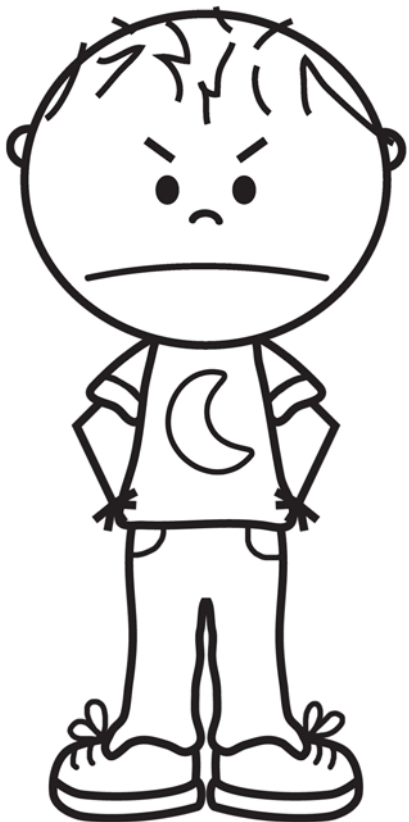|				
1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	17.	18.	19.	20.

What Does My Body Language Say?

Look carefully at the facial expression and the body and answer the questions about how he might be feeling.

❶ In one word, describe how he might be feeling.

_____

❷ What clues did you use to determine this?

_____

_____

_____

_____

❸ Describe a time when you might have felt like this:_____

_____

_____

❹ How can you help a person who is feeling like this?_____

_____

_____

State Report Booklet
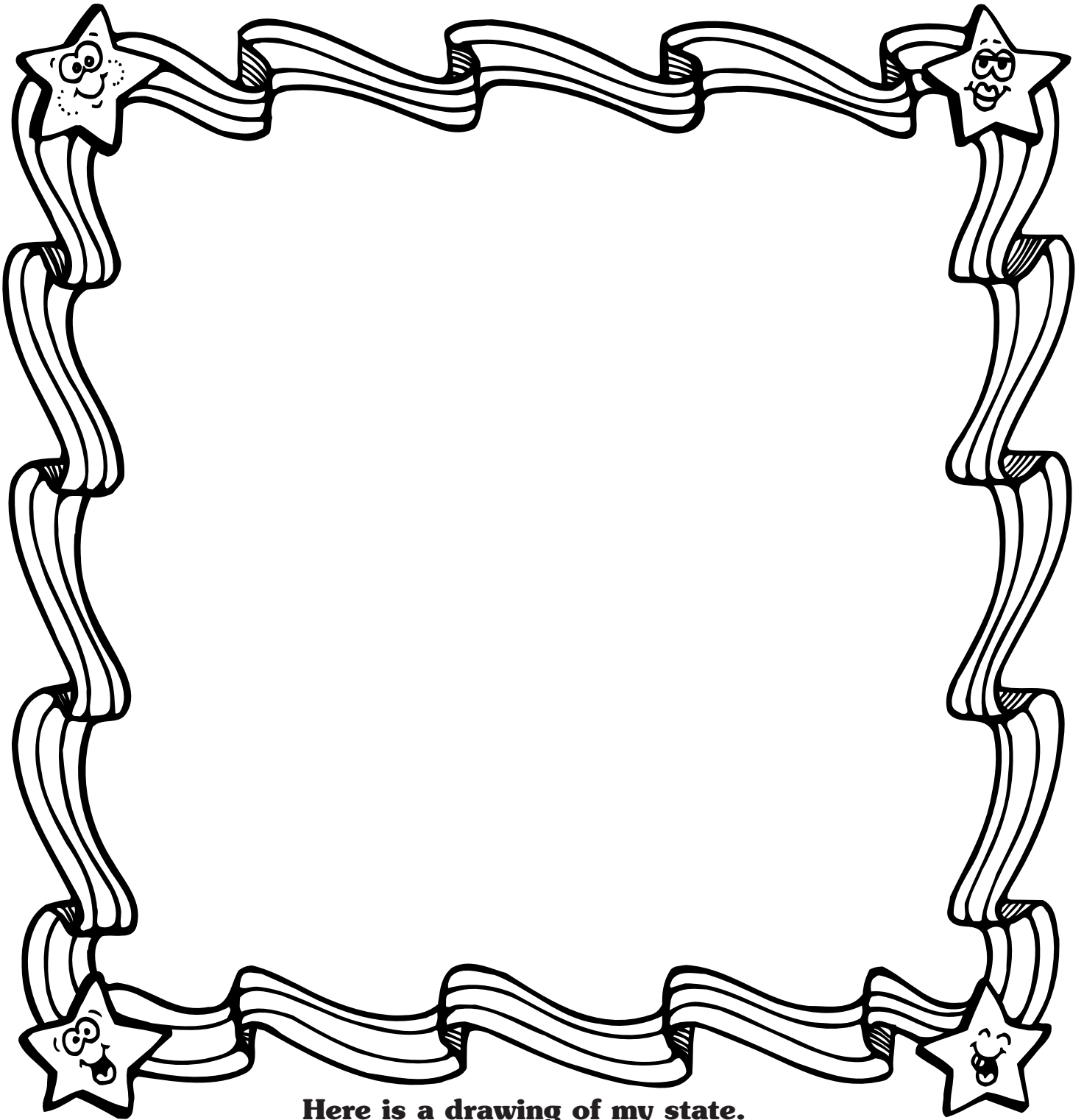
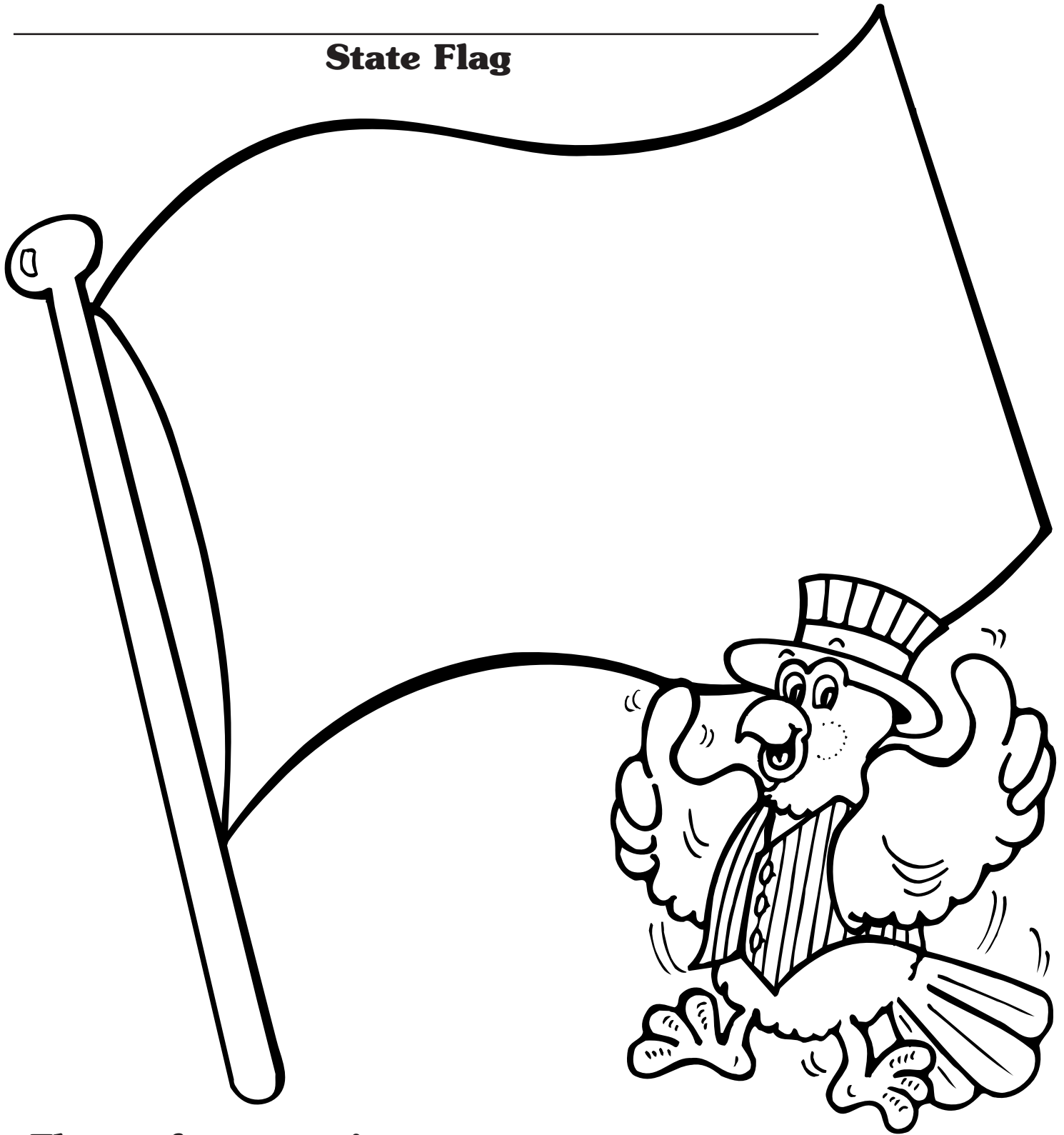My State Report On:

Student's Name

My state is:

_____

Here is a drawing of my state.

My state's capital is:

_____

State Flag

Three of my state's resources:

1. _____

2. _____

3. _____

My state is located:

☐ **In the West**   ☐ **In the Northeast**

☐ **In the Midwest**   ☐ **In the Southwest**

☐ **In the South**   ☐ **Somewhere else**

(Color your state.)

Here is my state!

My state is bordered by: _____

_____

_____

_____

_____

My state's nickname is:

_____

_____

My state was admitted to the Union in:_____

There are about _____ people that live in my state.

My state flower is:

_____

My state bird is:

_____

My state's motto is: _____

_____

_____

_____

_____

My state is famous for many things.

Here are a few:

1. _____

2. _____

3. _____

4. _____

5. _____

A famous person from my state is:

_____

_____

He or she is famous for:

_____

_____

_____

_____

_____

_____

_____
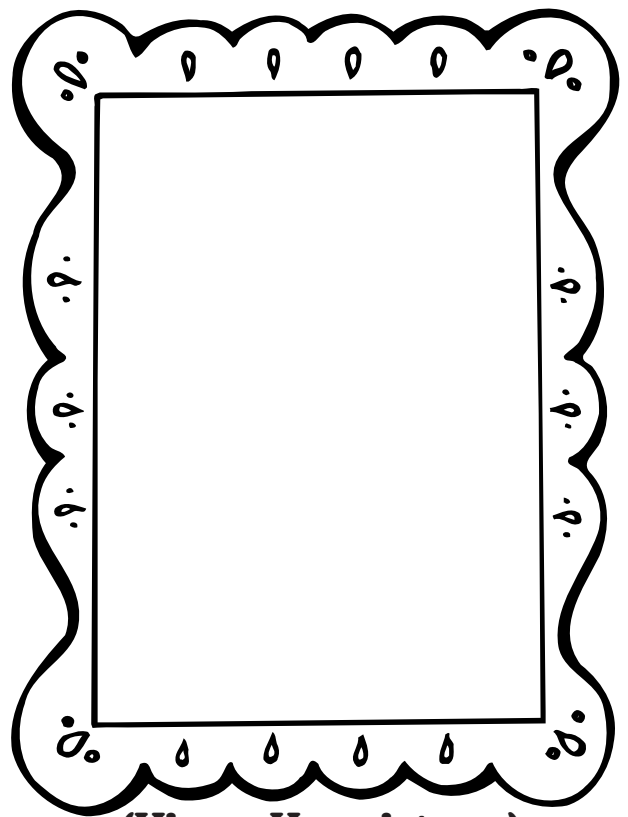
(His or Her picture.)

Year born [   ]   **Year died** [   ]

My state's main rivers, lakes and mountains are:

_____

_____

_____

_____

_____
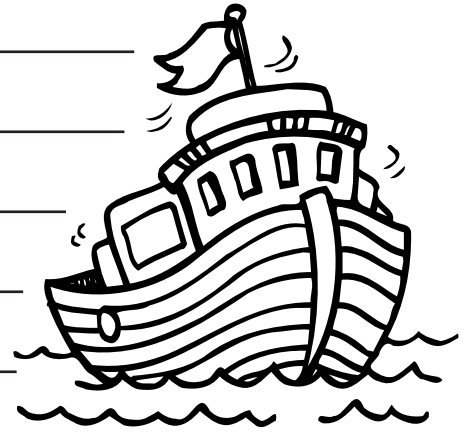
Historically, my state is famous for:

_____

_____

_____

_____

_____

The reasons to visit my state are:

_____

_____

_____

_____

_____

_____

_____