

Title: How do humans find their way?

Grade Level: 1st

Estimated Time Required: 5-6 lessons 25-35 minutes each

Rationale and Overview:

Throughout this unit students will be learning the cardinal directions, applying those to map skills, and learning how to use and create maps. Through these processes and activities students will be given opportunities to follow and give directions. This is a valuable unit because it addresses basic life skills and does it in an interactive way. It helps students learn ways to find their way around and explain to someone how to do the same.

Minnesota State Standards:

The student will...

- Use cardinal directions to locate places.
- Describe the location of people, places, and things by using positional words.
- Name and use directional words to describe the locations of places in the school and community. Students will locate places by using simple maps and understand that maps are drawings of locations and places as viewed from above.
- Locate places by using simple maps, and understand that maps are drawings of locations and places as viewed from above.
- Create and interpret simple maps using the elements of direction and symbols.

Duluth Public School Standards:

The student will:

- Locate directions north, south, east, and west on a map.
- Interpret symbols on a map.
- Use and create maps.
- Present, explain, and follow two to three step oral directions.
- Ask and respond to questions

NCSS standards:

1. NCSS Standard III (People, Places, & Environments) Sub standards a, b, c (p. 35)
2. NCSS Standard IV (Individual Development & Identity) Sub standard h
3. NCSS Standard I (Culture) Sub standards b, c, d
4. NCSS Standard II (Time Continuity and Change) Sub standards d, e

Overall Goals:

- Examine and use directions to explain and understand how human beings find their way through giving directions, using maps, and learning the language: map symbols, cardinal directions, and other directional vocabulary. Use mental and physical maps to practice skills and expand understanding. Students will be aware of the variety of maps and how people use maps and create symbols differently. They will use their understanding of maps to locate objects and follow directions.

Essential Skills:

- 1) Effective use of maps, symbols, a compass rose and cardinal directions, etc., to determine location.
- 2) Expand and practice map skills using symbols, a compass rose, and verbal directions.

- 3) Practice reading and reciting poetry to learn the directions: north, south, west, and east.
- 4) Practice creating objects into symbols that can be used on a map.
- 5) Participate in giving directions, making decisions, and taking action in-group settings.

Resources:

- Books:

There is a Map on my Lap by Dr. Seuss
“I saw” by Amanda Hatch
North, South, East, and West by Allan Fowler
“Our World” p.108
Secrets in Stone : All About Maya Hieroglyphics by Laurie Coulter

Additional Interest Reading: *Map Books:*

As the Crow Flies: A First Book of Maps by Gail Hartman
Maps and Globes by Jack Knowlton
Me on the Map by Joan Sweeney

- Internet:

<http://www.jamejamshid.com/images/star-maps/stars-map-parsi.gif>
Google images of maps

- Posters/Pictures:

Map of world
Laminated Cardinal Directions labels

- Worksheets/ Materials

1 and 2
Arrows
Popsicle Sticks
Treasure Hunt decorations and directions
Poster Paper
Plain and Lined Paper
Markers/ Crayons
Envelopes
Candy/Prizes

Big Question Unit: How do humans find their way?

Grade level: 1st

Unit Goal: The student will demonstrate how to use maps and cardinal directions to travel and give directions.

Lesson One

What are Cardinal Directions?

Resources

- Laminated Cardinal Directions labels and the “I saw” poem
- *There is a Map on my Lap* by Dr. Seuss
- Worksheet #1

Introduction (10-15 minutes): Gather students on the rug and review left from right. “Left” hand makes an ‘L’ and our right hand is the hand we use to cover our heart during the pledge. Short activity, give a high five. Students listen for cues and give handshakes with the right hand and high fives with the left. Then I will tell students to listen carefully to the poem I will be reading. Read the “I Saw” poem and point to the new pictures hanging in the room. I will ask students what they know about cardinal directions and why they are important. Then, I will read the poem again, this time the students will join in with the motions. Then, we will talk about what is in the northern part of our classroom, southern, etc. I will have students raise their hand and give examples. Then students will head back to their desks and work on worksheet #1.

Procedure (5-10 minutes): I will instruct students to put their name on their worksheet and to fill in where the cardinal directions should be and they will draw a picture for each direction of an object located near that wall.

Then, the students will share at their tables how they labeled their worksheet and the pictures they drew. After they have finished they will hand the papers in and I will collect them.

Closing (5 minutes): I will have students join me back on the rug and review left hand and right hand identification. We will read the poem again with the actions and I will end with the story, *There is a Map on my Lap*.

Assessment: I will collect the worksheet and use it to help direct my instruction, not for a grade. This will help me get a better idea for where each student is at.

Lesson Two

How can we use directions?

Resources

- Laminated Cardinal Directions labels and the “I saw” poem
- *North, South, East, and West* by Allan Fowler
- Worksheet #1, and #2
- “Our World” p.108
- Map of world
- Popsicle sticks (N, S, E, W)

Introduction (5-10 minutes): Students will gather on the rug and review the handshake game again. Then I will tell them more about cardinal directions by reading an excerpt from “Our World” reader and “North, South, East, and West.”

N, S, E, W, are four directions on Earth (What does N stand for? What does S stand for? Etc). These directions can help you find places on maps. North is the direction to the North Pole (point). South is the direction toward the South Pole. When you face north, east is to your right. What direction is to our left (reference posters in room). Run through poem again. Ask students review questions:

What pole does north face?
What pole does south face?
When we face north what is on our left? (Physically demonstrate)
When we face north what is on our right?

Procedure (15 minutes): After the review, I will give students pre-cut arrows that they will label and decorate (N, S, E, W) at their desks. They will use glue to attach the arrows to the sticks and leave them on their desks to dry. Then we will play the “Simon Says/ and response type game,” but using cardinal directions. Every student will stand and follow the commands.

For example:

Face north
Face south
Face east
Face west
Face the blackboard what direction is it located in?
Etc.

Then students will sit back down and I will hand back their worksheets and we will talk about them. Where they put their directions and mistakes they may have made. After this the students can retrieve their Popsicle sticks and find a place back on the floor. Each Popsicle stick is labeled with an N, S, E, and W. I will ask students to hold up the Popsicle stick of what direction the object is located in.

Ex. “Chalkboard”
“Teacher’s desk”
“Sink”
“Wordwall”
“Windows”

Then I will display a map and ask students questions like:

If we start driving in Florida, and we want to go to Minnesota, what direction do we need to go?

This will be my assessment of the day as well. I will be observing students and making note of who is struggling with the task and needs additional help.

Closing: Read book. Then I will hand out worksheet #2 and students will turn it in at the beginning of the next social class (5 minutes)

Lesson Three

Where are things located and how are they represented?

Resources

- Popsicle sticks
- Map Book
- Worksheet #2

Introduction (5 minutes): We will go over the worksheets as a class while students are sitting on the rug. Then the sheets will be handed in and graded according to the rubric. I will draw a compass rose (with a ruler) on the board with a map and ask the students if they think they know what it is. Then I will read part of a book that describes what a compass rose is and explain how they help us.

Procedure (25 minutes): After we finish reading about a compass rose I will have students help me label the one on the board. Then I will tell students that they will create their own compass rose with construction paper, ruler, and crayons in the corner of their paper after we have finished talking.

Next, I will read the rest of the map book and we will observe several maps from an aerial view to help explain how most maps are drawn. I will pass the maps around and have students make hypothesis about the similarities of the maps. I will bring in a shoebox that emulates a room in a house. Then, as a class we will draw it together on the board from an aerial view. I will show them a picture I took of the shoebox and compare it with the picture I drew so we can brainstorm what makes the two maps different or similar.

We will also address that not all people live in a house, or will draw symbols the same and why it is ok to be different. I will ask students other places in where people might live and we will look at symbols and talk about why people draw differently

Then, we will brainstorm what could be on a map (including stop signs, bus stops, chairs, bed, schools, gas station). Then I will have students look at the aerial picture compared to the drawn picture again. I will point out that one map has less detail than the other. Then, I will show them a picture of a tree and then a drawing of a tree. We will talk about how we use representations on a map to help draw our own. I will ask students to go back to their desks and I will hand out a photograph of objects and then have each student draw the object. We will talk about it and then I will collect the sheet.

We will also address that not all people live in a house, or will draw symbols the same and why it is ok to be different. I will ask students other places in where people might live and we will look at symbols and talk about why people draw differently.

Each student will be handed a small piece of paper that they will color and cut out. I will explain that the pictures they are coloring and cutting out are representations of the real thing. In addition, tomorrow we will be creating a map that they need to create symbols for. The cutouts will be glued down on construction paper. Then students will be required to create a map using symbols, compass rose, and four locations of objects using the cardinal directions (ex. The bed is in the north *part of the bedroom*, the school is in the east *part of town*).

Closing (5 minutes): Students will clean up. I will tell them that tomorrow; they will share the maps with their groups and quiz each other.

Lesson #4

What do maps look like?

Resources

- Crayons, blank and lined paper
- Photographs
- Rubric check sheet
- Maps and Websites (see in lesson)
- *Cloudy with a Chance of Meatballs* by Judi and Ron Barrette

Introduction (10 minutes): We will review what we went over yesterday about maps and symbols.

Procedure: We will talk about why maps and directions are important in our life. I will ask students why they think directions are important. We will talk about who uses directions: pilots, bus drivers, students, teachers, etc.

I will ask the class where else they see a use for maps. We will brainstorm on poster paper. Then I will read, and show examples of maps:

- Population maps
~Draw houses and ask students to tell me how many people live with them.

- Star maps
~Show pictures from *Mapping the Sky* by Walter Olesky
<http://www.jamejamshid.com/images/star-maps/stars-map-parsi.gif>
- Cooking Recipes (Directions)
- Solar System
- Write directions for how to brush teeth
- *Secrets in Stone : All About Maya Hieroglyphics* by Laurie Coulter

I will ask students about how these maps are similar and different. Then I will tell the students that they are going to create their own map. They are going to make a nonsense map. I am going to read, *Cloudy with a Chance of Meatballs*. Then I will have students help me start my map so I can demonstrate the assignment. I will have them help me pick a theme. First we will draw the compass rose.

- | | |
|-----------------|---------------------|
| • Theme Park or | Food Town |
| Symbols: | |
| Slip and slide | Meatball School |
| Trampoline | Pizza Park |
| Swings | Sloppy Joe School |
| Water Slide | Cotton Candy Forest |

Then we will make a dot in the middle of the paper and write four sentences on lined paper telling what is to the “west” of the dot, using each direction once.

Then the students can create their own symbols and label, color, and decorate their map.

Closing (5 minutes): Students will present their maps to their groups. I will collect them to check for progress. I will look for students using directional language and including symbols. They will receive a check if completed and if they don’t have those elements met, I will help them finish their map.

Lesson #5

How do we follow directions?

How do humans find their way?

Treasure Hunt

Resources

- Maps
- Envelopes
- Candy/Prizes
- Pencils
- Labels
- Signs
- Assessment Rubric

Introduction: Each student will get an envelope and a number. Each treasure is numbered. Students have to read clues along the way, use their map and knowledge of cardinal directions to find the treasure. Throughout the treasure hunt I will carry my clipboard and ask the following questions:

Is this a symbol or direction?

Where do you think you will go according to the direction?

How do we know where North is?

Is it to the West or East? Etc.

Procedure: Five students will head to the room where the treasure hunt will take place. They will have 8-10 minutes to find the treasure. There will be two days to complete the hunt if there is not enough time.

Clues:

When facing north I am the direction to you left.

Find the stars, what direction are they in?

In the envelope, there is a map of the room with a star on the table.

This is where the sun rises in the morning and where the little bird sailed on the sea.

Face the windows and spread your arms out, go to your right and answer the question to find the treasure.

~How do humans find their way?

~Tell me something you have learned while doing this unit.

Go to west and read envelope.

Go north towards the stars and read envelope.


Go to the table and read envelope.

Go east and read envelope.

Then I will have a bag and will draw out their treasure.

The students can't show their treasure to anyone. They need to put it into their backpack until everyone has finished.

Assessment: Students will be assessed on behavior, finding treasure, following the map, and using the cardinal directions. (See rubric)

Treasure Hunt Rubric	1	2	3	
Student will be able to recognize and use symbols and directional language to read a map and conduct their search.	Student is unable to independently recognize symbols or directions	Student recognizes major symbols but needs additional help.	Student uses symbols and directional language to follow the clues	Student performs above and beyond and moves through the directions at a fast pace.
Student will use previous knowledge of types of maps and directional vocabulary during the hunt.	Student is unable to recall previous learned knowledge and can't move on.	Student recognizes some knowledge, but can't apply it to the hunt.	Student uses previous knowledge and successfully moves from clue to clue.	Student displays a range of knowledge, discussed and not discussed in class.
Student will be able to locate the treasure and answer a reflective question.	Student cannot locate the treasure without help for each clue. Doesn't answer reflective question.	Student locates the treasure with help on 50% or more of the clues. Answers the question with prompting from the teacher.	Student finds the treasure independently, or with little help. Answers the reflective question	Student answers the question with deep understanding and grasp of content.

Lesson Two

What do maps look like?

Resources

- Laminated Cardinal Directions labels and the “I saw” poem
- *North, South, East, and West* by Allan Fowler
- Easel with the “Cardinal Directions” poem written on it.
- “Our World” big book p.22-23
- “GeoBook” big book p.R5b
- Dollhouse table and chair
- Symbol Worksheets (5 objects)

Introduction (5-10 minutes): Students will gather on the rug and review the Cardinal Directions” nonsense poem. I will break them into four groups and have each group stand by the pictures of north, south, east and west. Then, I will read the poem out loud and they can read when it comes to their part. Then I will give each group a secret word that they can’t say out loud until I point to them.

- ✓ North = Never
- ✓ East= Eat Never eat soggy waffles.
- ✓ South= Soggy
- ✓ West= Waffles

When I point to the first group, I will tell them to call out their special word. I will point to each group and ask them to say it all together once every special word has been said.

I will call them back to the rug and ask them what is special about the sentence that our special words made when put together. I will draw a compass and review how to draw the compass rose now that they have learned the special sentence.

Next, I will use the two Big Books that have photos of real maps of the world and U.S. The other book has a picture of a neighborhood with symbols.

I will ask:

~What is a map?

Look at map:

~What do you notice about the picture that was taken from a satellite and the drawn map of the same thing (earth)?

What do you see on the four sides of the map?

~Cardinal directions

Do you see Minnesota?

If I am in Texas and I want to go to Minnesota what direction would I drive in?

~etc. do these types of questions for all four directions

I will tell students that there are many types of maps and that we are going to look at a map that is made up of symbols.

Introduce symbols and map key (Use Our World, Big book):

I will show students an example of a map key in the book and talk about the symbols used in the key. I will cover up the real picture of the tree and show

them the symbol and they will have to tell me how they are different and the same. Then, I will show them a picture of an airplane and the students will have to guess what they think the airplane represents: airport. (SIMPLE object representations)

Then I will place a dollhouse-size chair and table on the floor and have the students stand up and look down to get an idea of what a birds eye view might look like. (BIRDS EYE VIEW SYMBOLS).

Then I will practice with students drawing what we see on the chalkboard before they have a chance to draw their own symbols.

I will have students return to their desks and I will pass out a sheet to each table of an object that they will need to make into a symbol.

Closing: Students will share with the class by showing the object picture they were given and the symbols they drew.

Lesson 3A: Mini-lesson

How can we read a map?

Resources

- *As the Crow Flies*

Introduction (2-5 minutes):

Ask students a few review questions:

What is our special sentence to remember the cardinal directions?

What is a symbol?

What is a map key?

Who can label the compass rose?

Procedure (10 minutes): Read the book, *As the Crow Flies*, and throughout ask the following questions:

~What do you notice about each map?

- An order
- Border w/ animal on it
- Trail
- Easy to follow and understand

Closing (2-5 minutes): Point out the map at the end and talk about how it is a combination of all the previous maps. Ask:

~Could you find your way?

~Do you see a path?

Then tell students that later today, we will be going on a “hunt,” and after the hunt we will be creating a map of the path we took.

Lesson 3B:

What do you need to make a map?

Resources

- *We're Going on a Bear Hunt* by Michael Rosen and Helen Oxenbury
- Bear hunt posters
- Manilla paper (half sheets)
- Pencils, crayons, and markers

Introduction (5 minutes): Ask students:

What kind of hunt do you think we are going to go on?

~Bear

I will have the students give me a beat by patting their legs, then snapping continually. I will have them repeat me on the chorus and do the actions in the other parts.

Procedure (15 minutes): While we act out the story, I will be putting up the photos of the grass, river, mud...for a visual. After the hunt is over,

Then, I will ask the students the following questions:

- Can you make a connection between this story and *As the Crow Flies*?
~I will show the eagle map and we will look at the similarities of order and objects.
- What kind of story is this?
~Circle story
- What kind of symbols might our map have on it?

Then, I will explain to students that they are going to make a map of the bear hunt that we just went on keeping in mind:

- Order
- Border
- Color
- Title of map: Bear Hunt Map
- Compass Rose

Students will have the rest of the time to begin their maps.

Closing (15 minutes): I will collect their maps and have an assessment opportunity where the students will talk in their groups and think of one thing they liked about the activity and one thing that could have been better. We will discuss as a group.

Lesson #4

Why do we use cardinal directions and maps?

Resources

- Crayons, pencils, and markers
- Bear hunt posters
- Manilla paper (half sheets)
- Large sheet of white paper

Introduction (10 minutes): We will review what we went over yesterday about maps and symbols. Then I will have the students brainstorm with me on a large sheet

of white paper why they think maps are helpful and important. We will also talk about what mapmakers are called (cartographers). We will review again all of the information we have learned.

- ✓ What is a map key?
- ✓ Where does the sun rise/set?
- ✓ Why does North go on top? (North says No!)
- ✓ What are symbols? ~Give an example
- ✓ What connections did we make with our bear hunt and crow story?
- ✓ What is our special sentence? Etc.

Then, I will also talk about why maps and directions are important in our life. I will ask students why they think directions are important. We will talk about who uses directions: pilots, bus drivers, students, teachers, etc.

I will ask the class where else they see a use for maps. We will brainstorm on poster paper. Then I will read, and show examples of maps:

Procedure (15 minutes): Students have the rest of the time to finish their Bear Hunt Maps. Those who finish can take another sheet of paper and create their own map.

Closing (5 minutes): Students will present their maps to their groups. Then, I will post the maps in the hallway.

Lesson 5A: Mini-Lesson (10-15 minutes) after lunch

Resources

- *Maps and Globes* by Jack Knowlton and Harriet Barton
~pgs. 1-7, 12-13, 19, 37-42

Introduction (2-5 minutes): I will talk to students and tell them that maps have been around a long time.

I will also tell students that there are different kinds of maps. For example, maps of cities, houses, sea levels etc.

Procedure (5-10 minutes): I will read the story about the history and types of maps and globes.

Closing(2-5 minutes): I will ask the students for examples of maps and how they are used.

Lesson #5B

How do we follow directions?

How do humans find their way?

Treasure Hunt

Resources

- Direction cards (mini-maps)
- Prizes
- Group assignments
- Signs that say “Flip me up”
- Assessment Rubric

Introduction (5-10 minutes):

Is this a symbol or direction?

Where do you think you will go according to the direction?

How do we know where North is?

Is it to the West or East? Etc.

Look to the north turn to your right/left.

Procedure(10-15 minutes): 3-4 students in a group. I will explain the each student will get a map with a clue and they will have to work together to find the treasure.

We will talk about teamwork and what it takes to make a good team:

If you each went where your clue said and didn't help each other out, what would happen?

What do you need for teamwork?

- Listen to each other
- Help out
- Stay together
- Stay on task
- Give encouragement
- Be patient

What can make working as a team hard?

- Being bossy
- Goofing around
- Not helping
- Being mean to each other

Clues (Examples):

- | | |
|--|------------------------|
| When facing north I am the direction to you left.
next card. | Go to west and read |
| Find the stars, what direction are they in?
stars and read next
card. | Go north towards the |
| In the envelope, there is a map of the room with a star
read next card.
on the table. | Go to the table and |
| This is where the sun rises in the morning and where
the little bird sailed on the sea. | Go east and read card. |
| Face the windows and spread your arms out, go to your right
and answer the question to find the treasure. | |

The students can't show their treasure to anyone. Once they think they have found it they need to sit down and raise their hand for me to come by. Then they can put their treasure on and we will meet back on the rug.

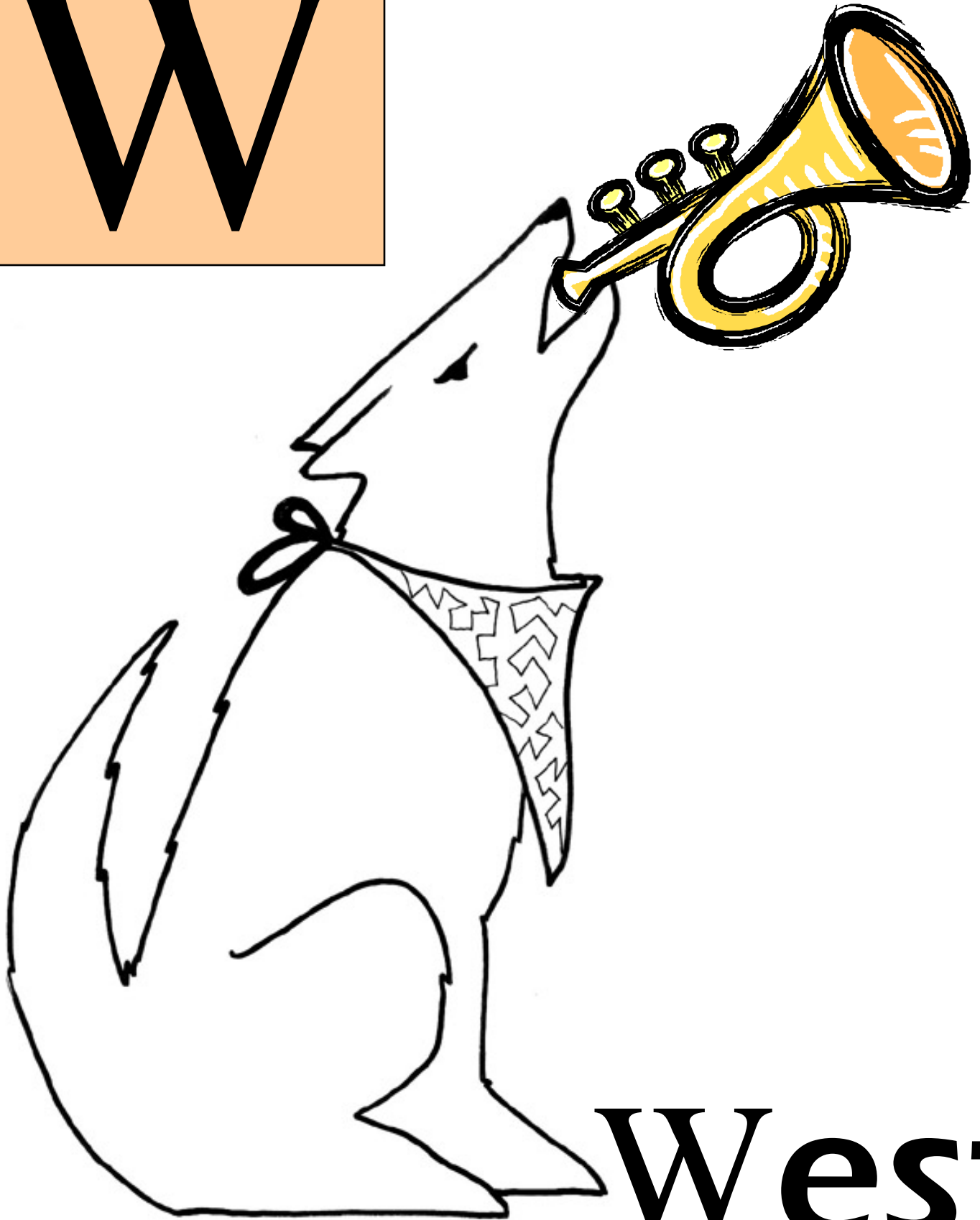
Closing(10-15 minutes): The students will share their strategies for finding their treasure and show the class what their treasure is. Then I will ask the students to brainstorm with me what we have learned about that helps us find our way. We will talk about the treasure hunt and what helped them find their way to the treasure. We will talk about the strategies they used (cardinal directions, compass rose, map, directional words, teamwork, listening, order etc) After these words are written I will have students write a sentence explaining how humans and themselves in general find their way. They will decorate their paper to go along with their sentences.

Assessment: Students will be assessed on behavior, finding treasure, following the map, and using the cardinal directions. (See rubric)

In the North there was a nimble bear clawing on a tree
In the East there was an eager egret happy as can be
In the South there was a sneaky shark chomping in the sea
In the West there was a wise coyote looking up at me

In the North I saw a furry bear...talking to a tree
In the East I saw a little bird...sailing on the sea
In the South I saw a scary shark...running on land
And in the West I saw a wise coyote...playing in a band

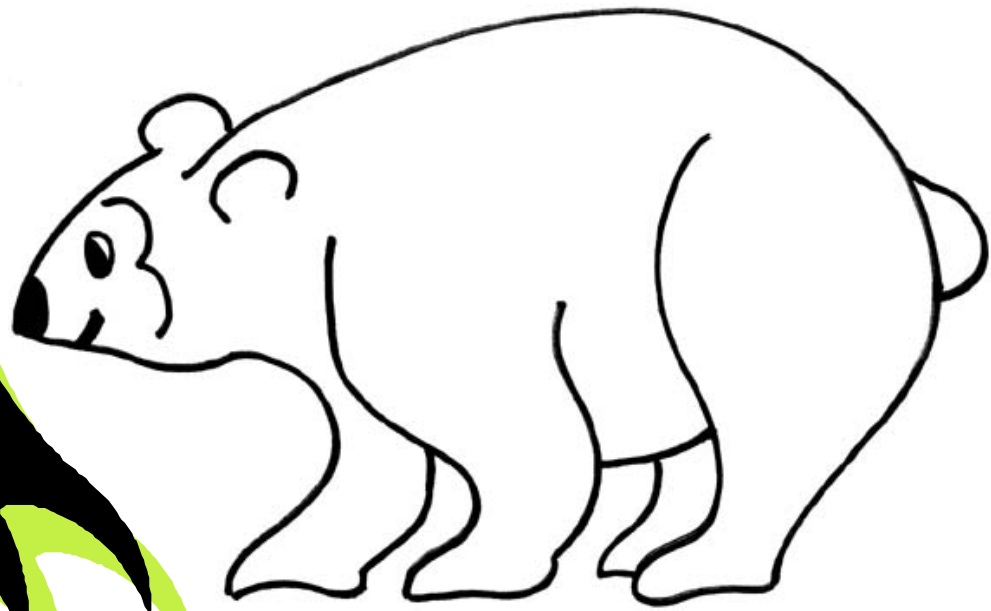
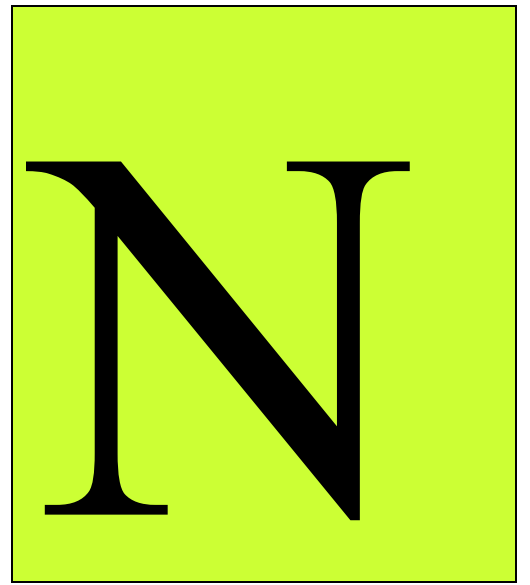
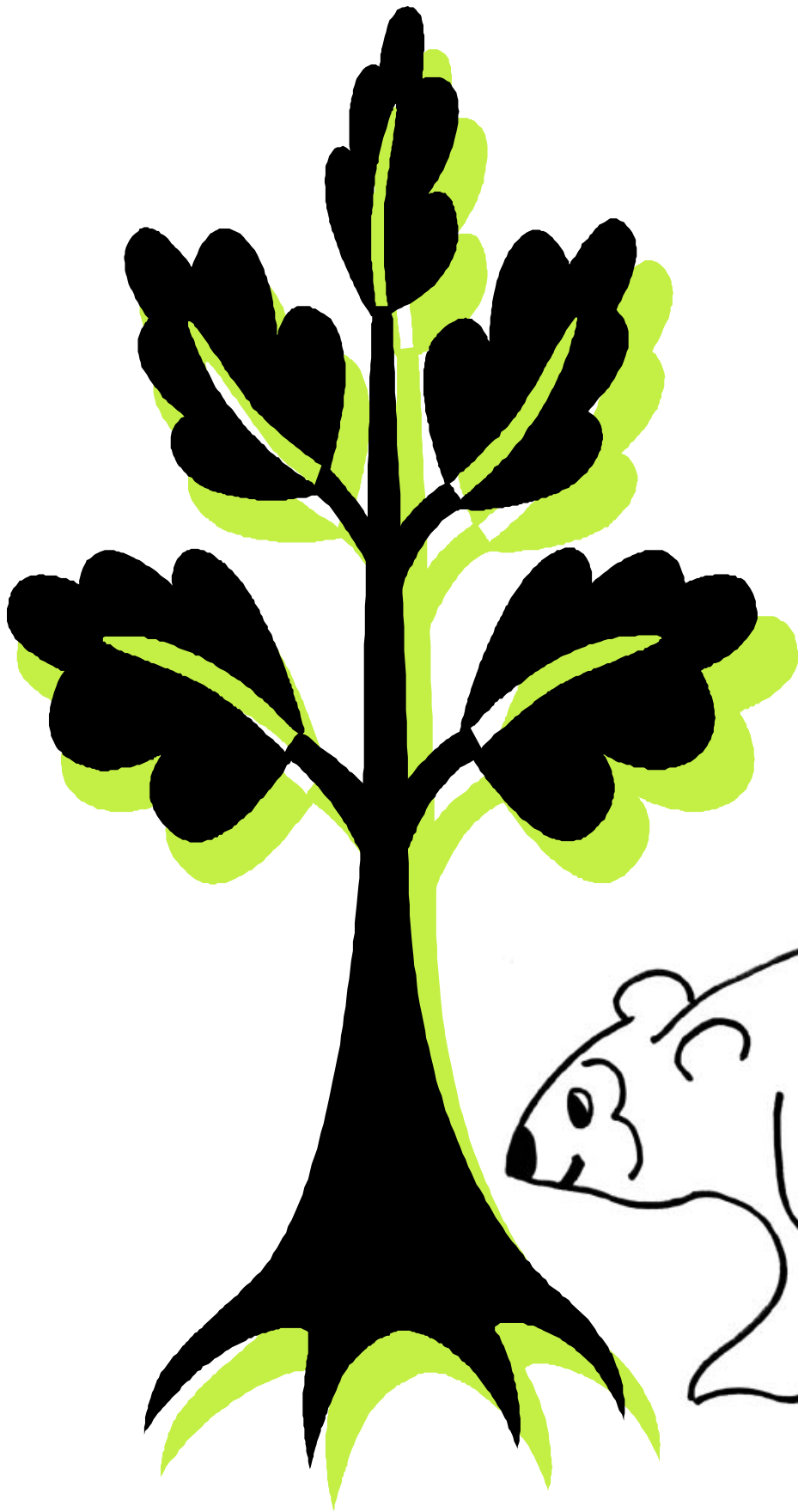
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West

W W

west

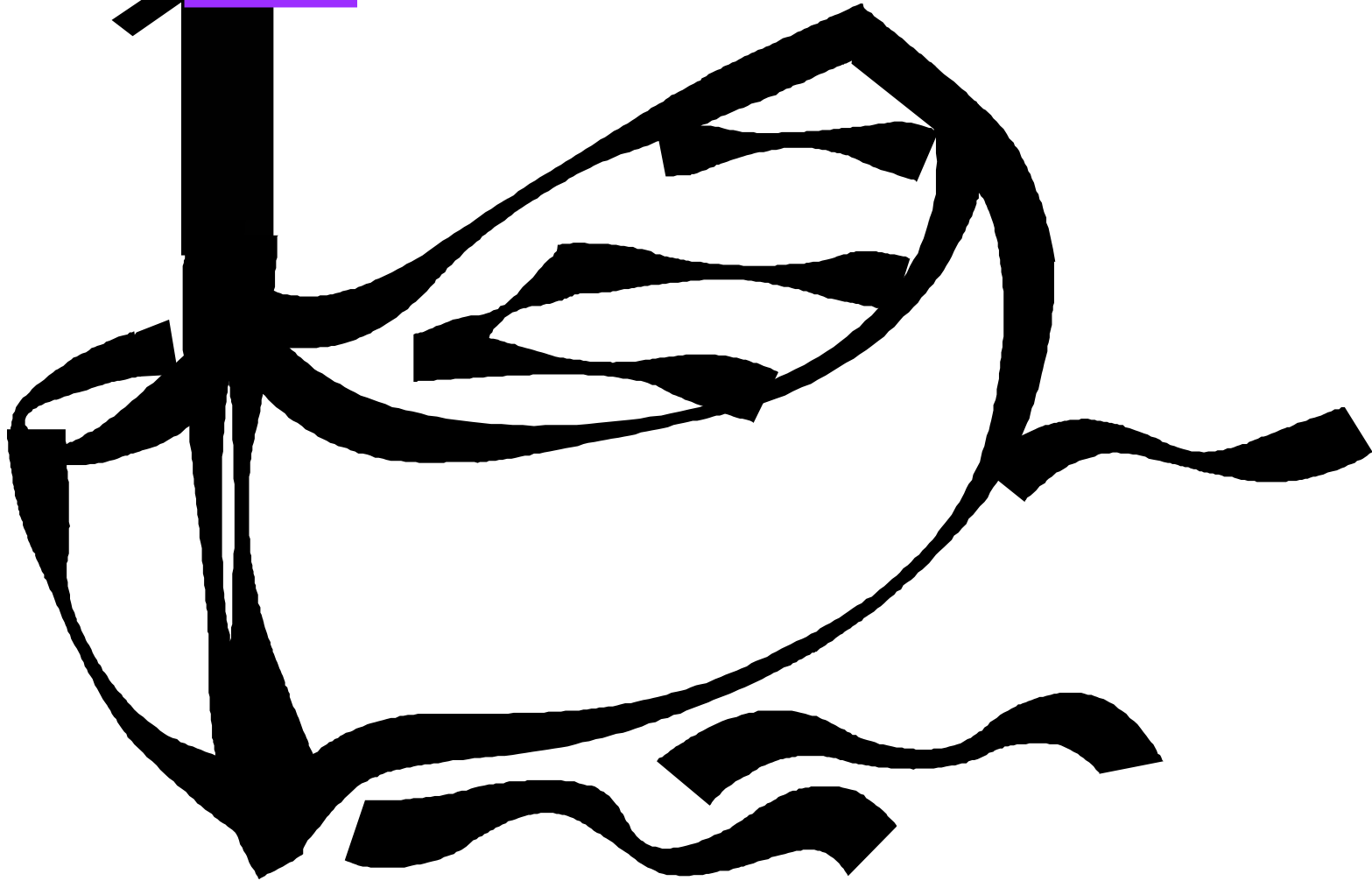


North

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North

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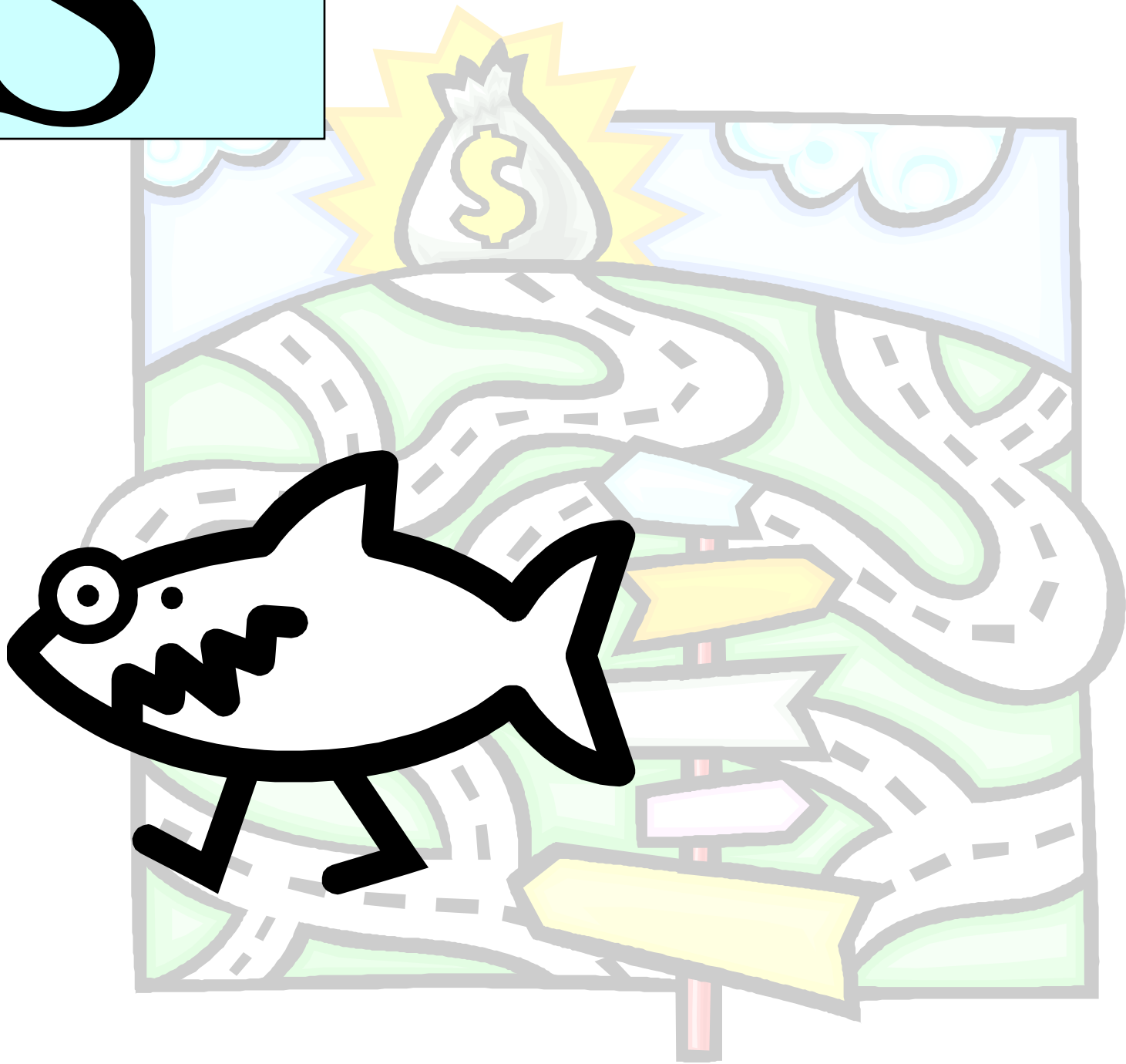


East

E

East

S



South

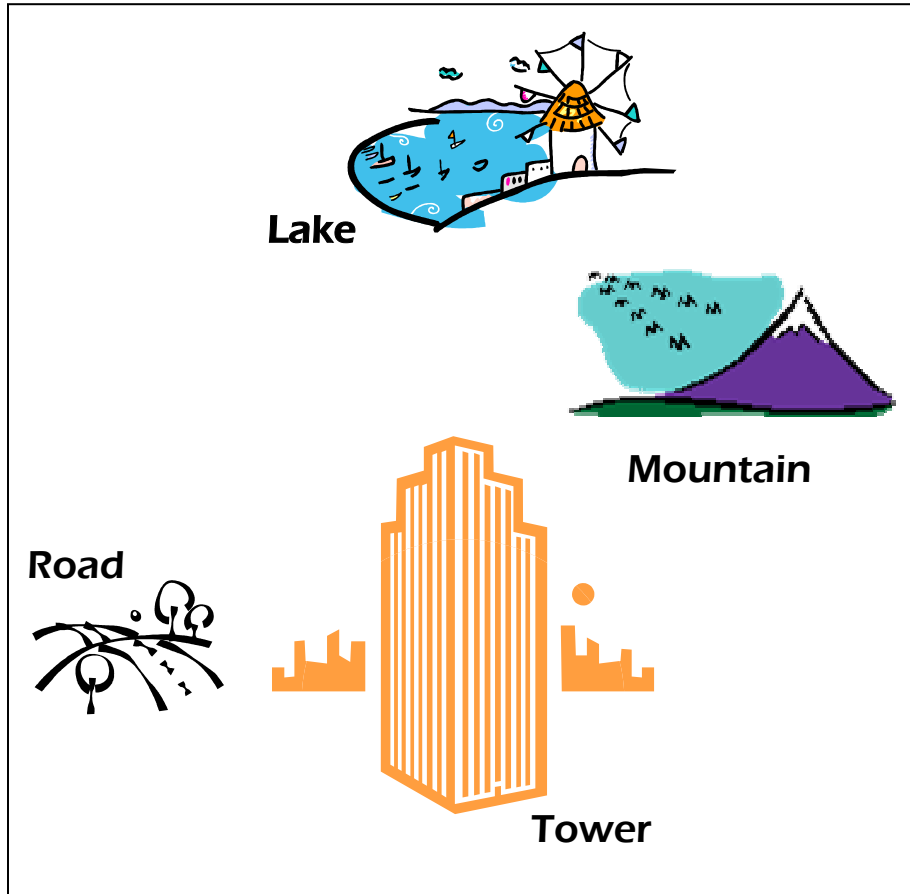
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South

Name _____

N

W



1. Is the lake **north** or **south** of the mountain?

2. What is to the **west** of the tower?

3. When facing **north**, what is to our left?

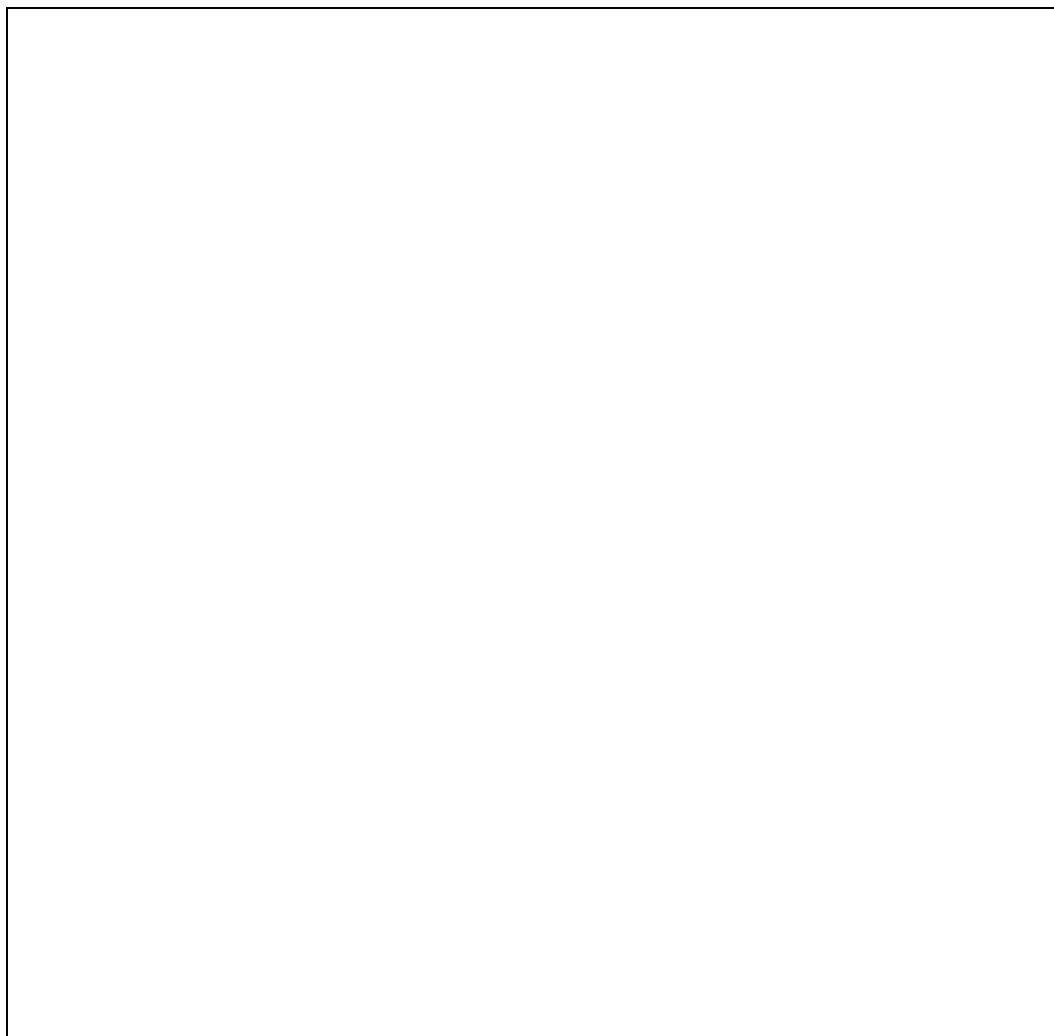
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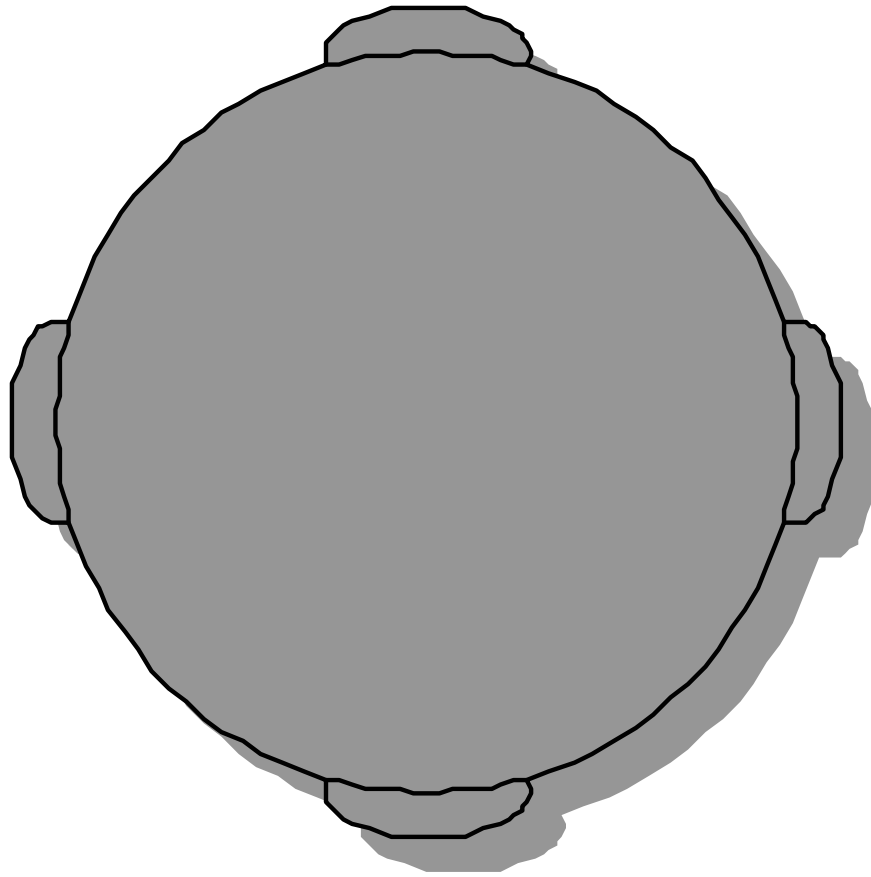
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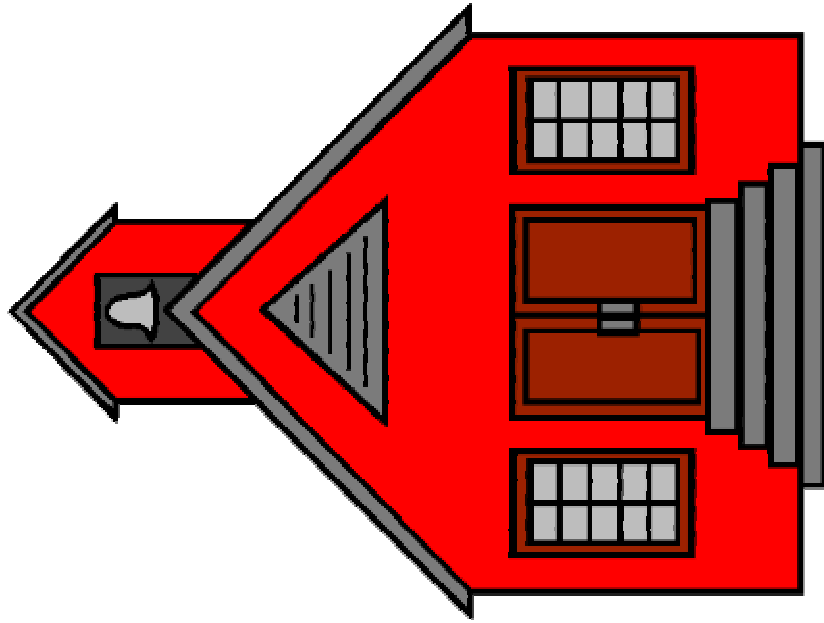
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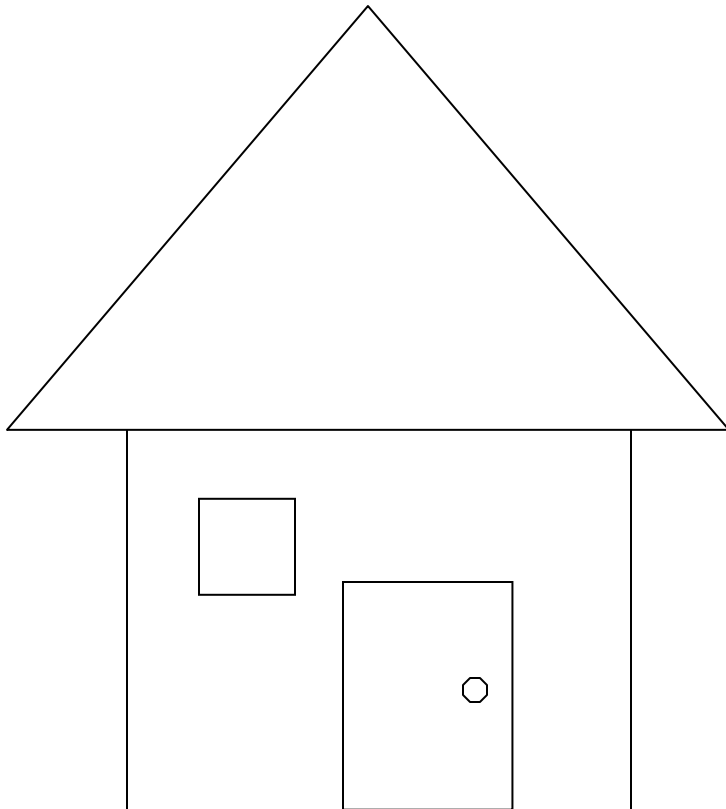
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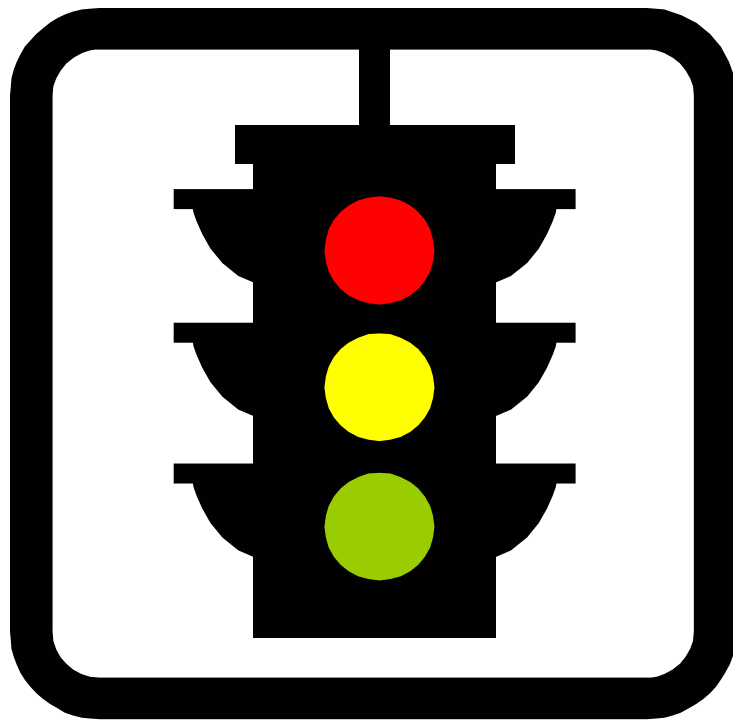
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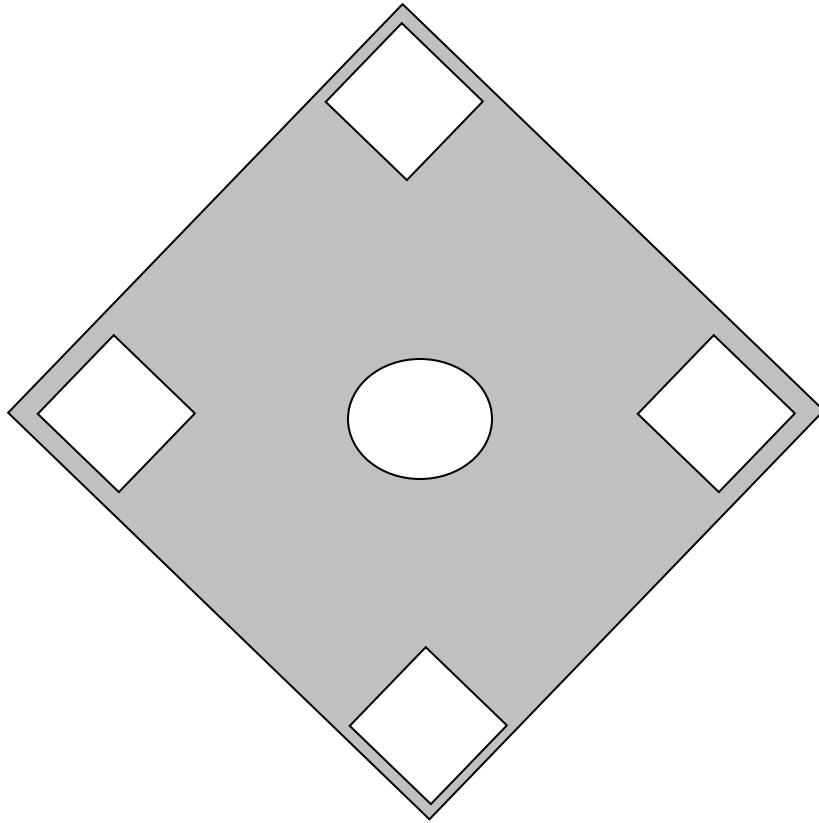












In the **North**

I saw a furry bear talking to a tree.

In the **East**

I saw a little bird sailing on the sea.

In the **South**

I saw a scary shark running on land.

And in the **West**

I saw a wise coyote playing in a band.