Activity Guide Week 1 - Explore, Design, Create

Grades: 3-5

Hello Parent/Guardian,

We hope you are doing well. Here is a guide full of fun activities for your child to try out this week at home! This educational guide is meant to be engaging and fun for your child. Complete the tic-tac-toe board with them on the front sheet, or challenge them to complete each of the activity squares. Included you will find: stories to read; letter, and sound activities; science and art activities; and some great math graphing practice. This week's theme is weather. We hope you enjoy your activity guide for week 1.

Kent ISD

In partnership with

Kent District Library

Grand Rapids Public Library

Literacy Center of West Michigan

Grades 3-5
Week 1: WEATHER

STEM: Create a kite: Use materials that you have at home to design a kite. Does your kite fly?	**READ:** **Choose 1:** - A story about the weather - A book about the weather - The weather app or newspaper - One of the stories in this packet	**SOUNDS (Phonemic Awareness):** Play: Piece it Together
WRITE: **Choose 1:** -What do you think the weather will be like next week? What evidence do you have for your prediction? -Write a story about a time you enjoyed the weather.	**FREE SPACE**	**LETTERS (Phonics):** Choose a Word Ladders page
MATH: Create a graph. Record the weather each day on your graph. What do you predict the weather will be next week?	**SCIENCE:** Go outside after a windy or rainy day. Describe what changes you see. How might the wind or water cause these changes? Draw the changes and label your drawing.	**LANGUAGE:** Talk with someone at home. What makes kites fly? How do you know? What questions do you have about how things fly? Where might you find answers to these questions?

Stormy Weather

Storm Warning!

Hurricane season is here.

Jim Edds/Corbis

A **hurricane** is a spinning storm. It brings heavy rain and strong winds.

Most hurricanes happen at this time of year. The season lasts from June to November.

Do you live in an area where hurricanes happen? If so, know what to do. Check weather alerts. They will tell you how to stay safe.

Hurricane winds can be harmful. They can rip the roofs off houses and tear down trees.

Strong winds can also cause big waves to form in the ocean. When the large waves push onto the shore, it is called a **storm surge**. That can cause flooding.

Reuters/Corbis; Inset: AP Images

How Does a Hurricane

Form?

Sean Parkes

(1) Warm ocean water turns into tiny drops of water in the air. They form clouds.

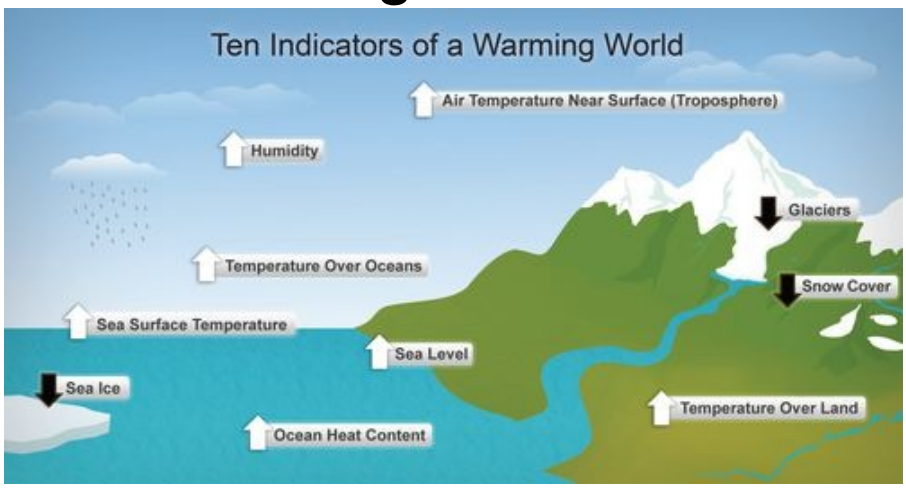
(2) Winds make the clouds spin together. They spin faster and faster.

Sean Parkes

Sean Parkes

(3) A hurricane forms. Clouds spin around the **eye.** That is the storm's calm center.

Watching the Weather



Do you know what the weather will be tomorrow? A weather report can tell you. But what will the weather be like in ten years? Or 20 years? Or 100 years?

No one knows for sure. But some scientists say that our long-range weather outlook isn't good.

Those scientists say the summers will be hotter. They say that warmer, wetter winters are on the way. Severe droughts, floods, wildfires, and storms are also possible.

What's the cause of all those wacky weather changes? Experts say that humans are.

Warming the Globe

Some weather changes are due to global warming. Global warming happens when gases in the air trap the sun's energy. That energy heats Earth. Without the gases, the energy would escape into space.

Some global warming is good. Without it, Earth would be too cold to live on.

For years, though, humans have created lots of air pollution. The pollution traps more of the sun's heat. In turn, Earth has grown warmer, experts say. This could lead to bad weather.

Melting the Ice

There are some signs of global warming. One of the signs is happening in the coldest parts of the world.

Near the North and South poles, vast ice sheets are breaking up.

Earth's glaciers (GLAY-shers) are also melting. A glacier is a huge mass of ice that slowly moves. Experts say some glaciers may vanish by the year 2100.

A Rising Tide

As the ice melts, ocean levels rise. Experts say that levels have risen 4 to 10 inches in the past 100 years. Levels could rise 3 feet in the next 100 years!

High ocean levels might lead to floods along U.S. coasts. Some coastal areas might disappear under water.

That change might also bring more storms. Hurricanes are storms that create high wind and rainfall. They are strongest over water. Higher sea levels might lead to stronger hurricanes on U.S. shores.

Drying Out

In some areas, though, global warming might lead to drier weather. Dry weather often leads to droughts. A drought is a long period of very dry weather.

Droughts hit parts of the country this year. If experts are right, global warming could cause less rain to fall in the Midwest. This would be hard on plant life and people.

Droughts kill off crops. And dried-out plants and trees could lead to wildfires.

What's the Answer?

Scientists say that cutting down on air pollution will slow global warming. One way to lower air pollution is to drive less. Cars cause a lot of pollution. People also need to find cleaner ways to make electricity.

Experts aren't sure about the best ways to stop or slow global warming. But they agree that something must be done. The life of future generations depends on it.

Name: _____ **Date:** _____

1. According to the text, what is one negative effect of droughts?

A. floods

B. wildfires

C. storms

D. pollution

2. In the text, the author describes the problem of global warming. What solution does the author propose for this problem?

A. The author proposes cutting back on air pollution.

B. The author proposes melting the glaciers.

C. The author proposes moving out of some coastal areas.

D. The author proposes cooling off the Earth.

3. Humans can take action to slow global warming.

What evidence from the text supports this conclusion?

A. "Scientists say that cutting down on air pollution will slow global warming. One way to lower air pollution is to drive less."

B. "Some weather changes are due to global warming. Global warming happens when gases in the air trap the sun's energy."

C. "A glacier is a huge mass of ice that slowly moves. Experts say some glaciers may vanish by the year 2100."

D. "Droughts hit parts of the country this year. If experts are right, global warming could cause less rain to fall in the Midwest."

4. What does the text suggest?

A. The droughts in the Midwest will not be difficult for people.

B. People will drive their cars more in the future and cause more air pollution.

C. Scientists can definitely know what the weather will be like in 10 years.

D. There will be big problems in the future if global warming is not stopped.

5. What would be another good title for this text?

A. How to Predict the Weather
B. The Weather and You
C. Weather Problems in the Future
D. Whether the Weather is Warm or Hot

6. Read these sentences from the text.

> Those scientists say the summers will be hotter. They say that warmer, wetter winters are on the way. Severe droughts, floods, wildfires, and storms are also possible. What's the cause of all those **wacky** weather changes?

What does the word "**wacky**" mean?

A. hot
B. crazy
C. rainy
D. melting

7. Choose the word that best completes the sentence.

Many weather changes are happening _____ humans have caused global warming.

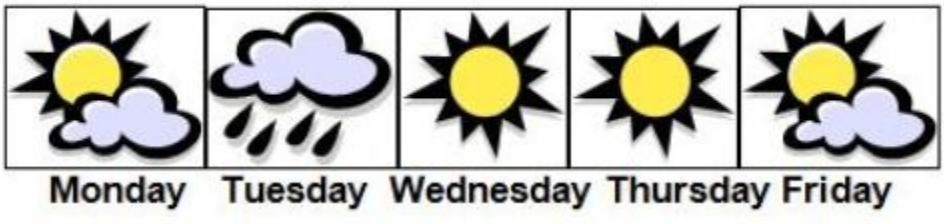
A. and
B. although
C. and
D. because

8. How have humans caused the Earth's weather changes, according to experts?

9. What signs of global warming might a person in the Midwest be most concerned about?

Weather - An Introduction to Weather

by ReadWorks



What does the word "weather" mean to you? Everyone knows how to describe the weather. There are beautiful, sunny days with blue skies and then there are gray, rainy days perfect for staying in bed. But do you know what actually *causes* weather? The pictures above show the forecast for a week. Soon you will know what causes different types of weather!

Let's start with a scientific definition of weather. Weather is the state of the atmosphere at a given time and place. Four main factors determine the weather: *temperature, humidity, wind speed and direction*, and *air pressure.*

Temperature is the measure of how hot or cold the air is. When the sun shines down on Earth, it warms up the Earth's surface. But that is not all that happens. The warmth of the sun also heats up the water on Earth. This process is responsible for many changes in weather and weather patterns. A thermometer measures temperature.

Humidity is the amount of water in the air. The air always has water in it, even though we cannot always see it. Most of the weather conditions that we can observe come from humidity. Clouds, rain, and snow all have to do with humidity.

Wind speed and direction carry the weather. They also help forecasters predict the weather. Forecasters can measure wind speed and direction to determine how fast a storm is moving. Often the winds blowing far up in the Earth's atmosphere are different than the winds we feel on Earth.

Air pressure has to do with the thickness of air. To understand air pressure, imagine you are standing in a room packed with people. There is a lot of pressure in the room. You can feel the person behind you hitting your elbow. If someone opens up a door into an empty room, people will start moving into the empty room until there are about the same number of people

in both rooms. Air particles spread out in the same way. They always move from an area of high pressure to an area of low pressure. A barometer measures air pressure.

All of the weather's four main factors interact with each other. As air particles respond to changes in pressure, they move and create wind. On a very humid day, there may be many clouds in the sky. When it is cloudy, many of the sun's rays never reach the Earth. What does this do to the temperature?

Name: _____ **Date:** _____

1. What is this passage mostly about?

A. Temperature

B. Barometers

C. What causes weather

D. The atmosphere

2. You know that clouds are made up of water particles. On a day that is cloudy, you would expect:

A. High temperatures

B. High humidity

C. High wind speeds

D. A lot of air pressure

3. When you look up in the sky and see storm clouds moving your way, you are observing

A. temperature

B. pressure

C. wind speed and direction

D. air pressure

4. All of the following cause weather, *except*

A. the Weather Channel

B. the sun warming up the water on Earth

C. clouds moving across the sky

D. humidity

5. What is humidity?

A. The amount of water in the air

B. When people are pushed to another room

C. The temperature of the air

D. The main cause of weather

6. When it is cloudy, many of the sun's rays never reach the Earth. What does this do to the temperature?

7. What are the four main ingredients of weather?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Weather is caused by a few things, _____ air pressure.

A. always
B. including
C. excluding
D. but

Syllables

PA.019

Syllable Graph

Objective

The student will segment syllables in words.

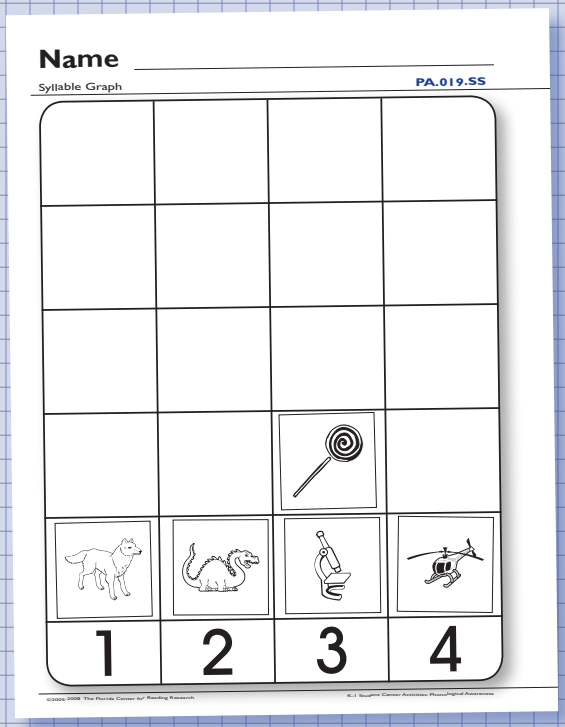
Materials

- One-to-four syllable picture cards (Activity Master PA.019.AM1)
- Student sheet (Activity Master PA.019.SS)
- Scissors
- Glue

Activity

Students count syllables in words and graph them.

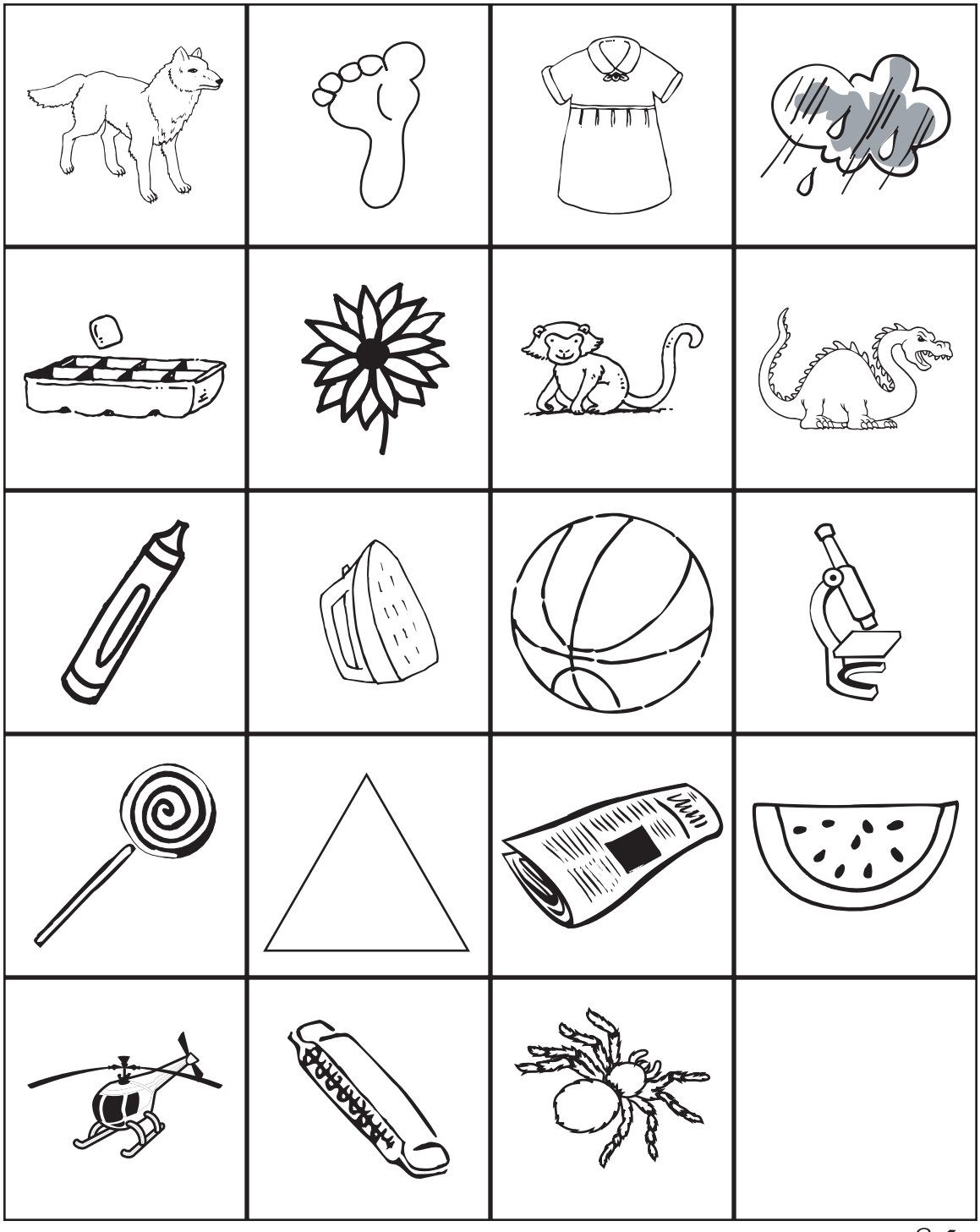
1. Place scissors and glue at the center. Provide the student with a student sheet and picture cards page.
2. The student cuts apart the pictures and places them in a stack.
3. Selects the top card from the stack and names it. Says it again while finger tapping to count the syllables in the word.
4. Glues the picture above the corresponding number on the graph.
5. Continues until student sheet is complete.
6. Teacher evaluation



Extensions and Adaptations

- Sort words by number of phonemes.
- Make other syllable pictures to graph.
- Use student pictures to graph.

PA.019.AM1 Syllable Graph

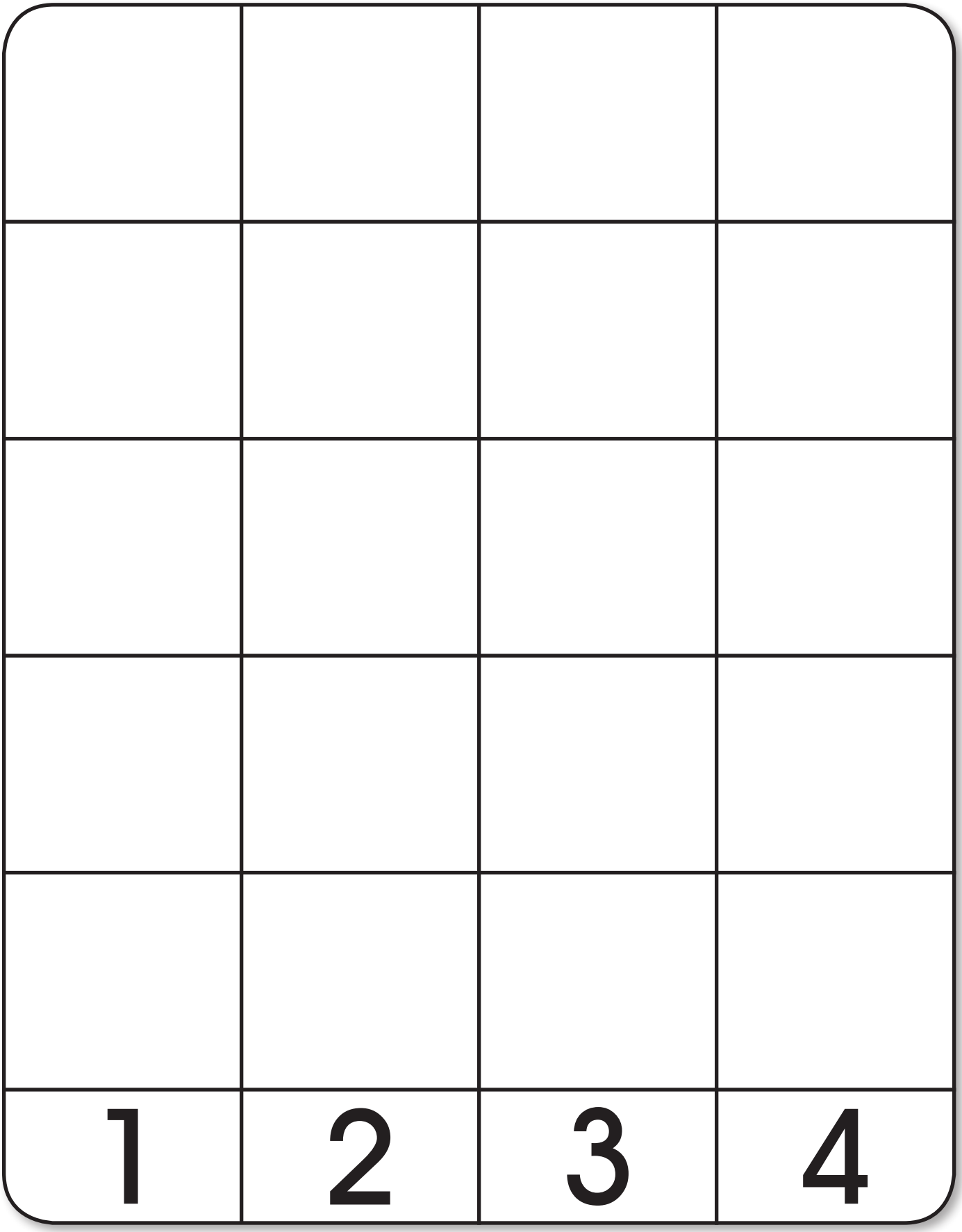


syllable picture cards: wolf-1, foot-1, dress-1, cloud-1, ice-1, flower-2, monkey-2, dragon-2, crayon-2, iron-2, basketball-3, microscope-3, lollipop-3, triangle-3, newspaper-3, watermelon-4, helicopter-4, harmonica-4, tarantula-4

Name _____

Syllable Graph

PA.019.SS



Name _____

Read the clues, then write the words.
Start at the bottom and climb to the top.

11 ____ ____ ____ ____
It falls from the sky and makes you wet.
Add one letter.

10 ____ ____ ____
Walked very fast.
Take away one letter.

9 ____ ____ ____ ____
Part of the wheat plant.
Change one letter.

8 ____ ____ ____ ____
Short for Bradley.
Add one letter.

7 ____ ____ ____
The opposite of good.
Change one letter.

6 ____ ____ ____
A stick used for hitting balls.
Change one letter.

5 ____ ____ ____
A wager or guess that something will happen.
Take away one letter.

4 ____ ____ ____ ____
You wear it to hold up your pants.
Change one letter.

3 ____ ____ ____ ____
Something that makes a ringing noise.
Change one letter.

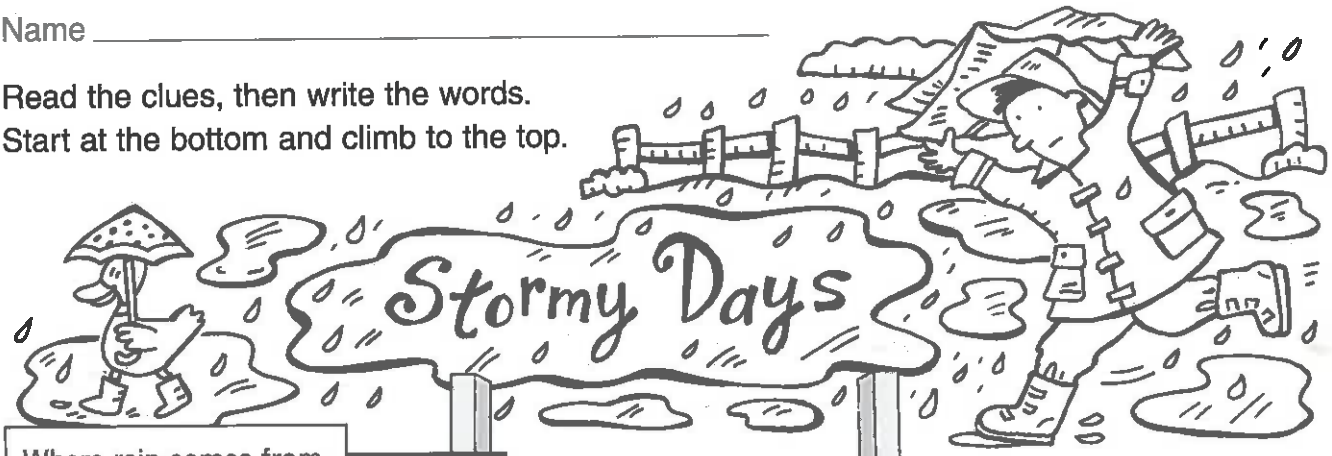
2 ____ ____ ____ ____
Healthy.
Add two letters.

1 ____ ____
All of us.
Take away one letter.

w e t

Name _____

Read the clues, then write the words.
Start at the bottom and climb to the top.



Where rain comes from.
Add one letter.

Noisy.
Change one letter.

A person who has power or authority over others.
Change one letter.

Two words, one ___.
Take away one letter.

What we are making in this activity.
Move one letter.

A knight would have one of these.
Change one letter.

If you made a formal, solemn promise, you ___.
Add one letter.

Past tense of *wear*.
Change one vowel, then add one vowel.

Opposite of *peace*.
Rearrange the letters.

Not cooked.
Change one letter.

Walked fast.
Take away one letter.

11 _ _ _ _ _

10 _ _ _ _

9 _ _ _ _

8 _ _ _ _

7 _ _ _ _ _

6 _ _ _ _ _

5 _ _ _ _

4 _ _ _

3 _ _ _

2 _ _ _

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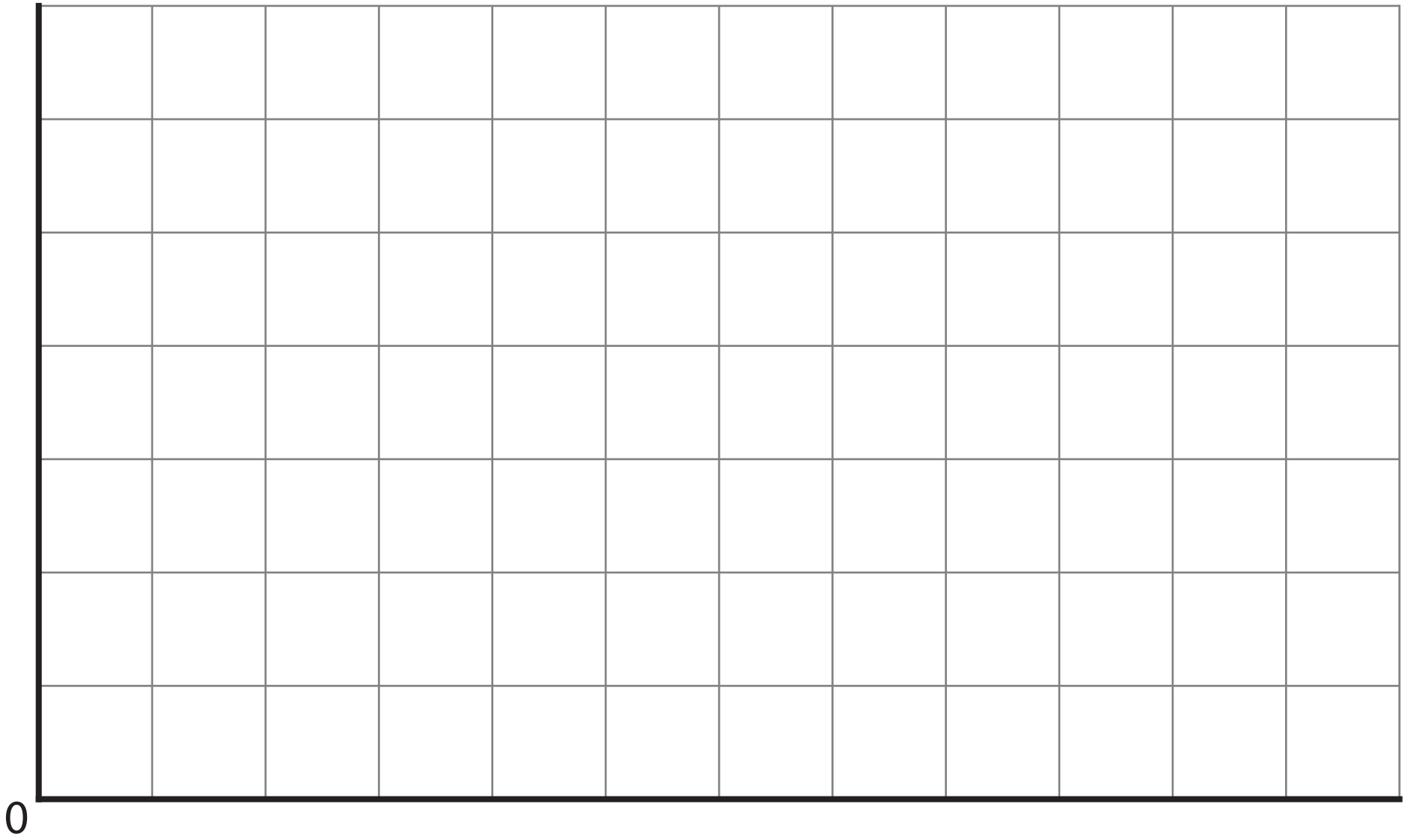

Graph: https://www.teachstarter.com/us/teaching-resource/blank-graph-template-us/?plancode=free

Stories: https://www.readworks.org/

Sounds: https://fcrr.org/resources/resources_sca_k-1.html

Letters: https://fcrr.org/resources/resources_sca_k-1.html

STEM: https://drive.google.com/drive/folders/12OQtEcSkhsxLgiXAltn8kxJFwq8dbKB7?usp=sharing

Science: https://drive.google.com/file/d/1WQnKwVVGKbcpbfR_hDrp9JG2zhiNN9Fy/view