

The following instructional plan is part of a GaDOE collection of Unit Frameworks, Performance Tasks, examples of Student Work, and Teacher Commentary. Many more GaDOE approved instructional plans are available by using the Search Standards feature located on GeorgiaStandards.Org.

Georgia Performance Standards Framework

Unit One Organizer:

(9 weeks - Ideally taught during the fall season)

OVERVIEW: FALL

In this unit students will:

- Identify the basic patterns of fall weather
- Use simple instruments to measure temperature, wind, and precipitation
- Observe sky conditions
- Collect weather data
- Create a weather journal
- Explain weather findings through pictographs and bar graphs
- Make observations about weather
- Demonstrate how magnets repel and attract
- Identify items attracted to magnets
- Identify items that do not block magnetic force

STANDARDS ADDRESSED IN THIS UNIT

Focus Standards:

S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.

- a. Identify different types of weather and the characteristics of each type.
- b. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally.
- c. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes.

S1P2. Students will demonstrate effects of magnets on other magnets and other objects.

- a. Demonstrate how magnets attract and repel.
- b. Identify common objects that are attracted to a magnet.
- c. Identify objects and materials (air, water, wood, paper, your hand, etc.) that do not block magnetic force.

STANDARDS ADDRESSED IN THIS UNIT

Supporting Standards:

ELA1R6. Reads and listens to a variety of texts for information and pleasure.

ELA1LSV1c. Respond appropriately to orally presented questions.

LITERATURE SELECTIONS

Source of Recommendation	Title	Author	ISBN
Media Specialist	Why Do Leaves Change Colors?	Betsy Maestro	0-06-445126-7
Media Specialist	Magnetism	Mari Schuh	978-0-531-14726-9
American Library Association	Weather Words	Gail Gibbons	0-590-44408-5

ENDURING UNDERSTANDINGS

- Fall is a season of the year.
- Identify the weather conditions in fall.
- Magnets can repel and attract.
- Some objects are attracted to magnets.
- Some materials (air, water, wood, paper, your hand, etc.) do not block magnetic force.

ESSENTIAL QUESTIONS:

- How can fall weather be described?
- How do you measure fall weather?
- How does fall weather affect the types of clothing I wear?
- What is the difference between objects attracted to a magnet and those that are not?
- Do materials such as air, water, wood, and paper block a magnetic force? Why?

MISCONCEPTIONS	PROPER CONCEPTIONS
1. The season fall has the same kinds of weather as the other seasons. 2. Magnets attract everything.	1. Fall has its own weather patterns. 2. Some metals attract to magnets.

CONCEPTS:	KNOW AND DO	LANGUAGE	EVIDENCE OF LEARNING
Fall Weather: Fall is a season with its own weather patterns.	<ul style="list-style-type: none"> Identify the types of weather in fall. 	<ul style="list-style-type: none"> fall autumn cool golden leaves 	<ul style="list-style-type: none"> Science Journal Entries Writing assignment Lab Coat Rubric
Fall weather can be communicated to others through the process of observing, measuring and recording weather data.	<ul style="list-style-type: none"> Observe weather using simple weather instruments (thermometer, wind vane, rain gauge). Record weather data (temperature, precipitation, sky conditions, and weather events) 	<ul style="list-style-type: none"> thermometer wind vane rain gauge temperature precipitation sky conditions weather events 	<ul style="list-style-type: none"> Weather Recording Center Chart Weather Dictionary Rubric Class Weather Recording Center
Magnets attract and repel.	<ul style="list-style-type: none"> Experiment with different objects to see what a magnet will attract and repel. 	<ul style="list-style-type: none"> magnet attract repel magnetic poles 	<ul style="list-style-type: none"> Magnetic Work Mat
Some items do not block magnetic force.	<ul style="list-style-type: none"> Experiment with different objects to see if the magnetic force can or cannot be blocked. 	<ul style="list-style-type: none"> magnetic force 	<ul style="list-style-type: none"> Science Journal Entries

GRASP
<p>Culminating Activity: GRASP activity</p> <p>Goal: Create a lab coat (paper grocery bag) that presents material learned in this unit. (Optional: Teacher may want to spray paint the “coats” white.) On the front of the lab coat, students will write fall language and illustrate fall pictures. On the back of the lab coat, the students should draw a big magnet. They can also include the magnet language learned in the unit and paste pictures cut from magazines of items attracted to magnets to the big magnet on the back.</p> <p>Role: Scientist</p> <p>Audience: Classmates</p> <p>Scenario: The principal has asked the 1st grade students to develop an interesting way to communicate what they know about fall and magnets.</p> <p>Product: Lab Coat</p> <p>Assessment: Lab Coat Rubric</p>

General Timeline			
Introduction to Fall	Why Do Leaves Change Colors?	Magnetism	Weather Words
1 Week	1-2 Weeks	1-2 Weeks	1-2 Weeks

TASKS

The following collection of tasks represents the level of depth, rigor and complexity expected of all students to demonstrate evidence of learning.

Lesson: [Introduction to Fall](#)

Description:

- A. Introduce Standards:
S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.
- B. Continue using “language” from the standards during the unit. Refer to posted standard as necessary throughout unit. Create a “Fall Word Wall” for the following (to be added once discussed in class): thermometer, wind vane, rain gauge, temperature, precipitation, sky conditions, weather events, attract, repel, and magnetic force.
- C. Create a class weather recording center. This should be an area that is updated daily to include: temperature, precipitation, sky conditions (sunny, cloudy, etc.) The weather can be graphed to help students understand that the weather changes day to day (Use the [Sky Conditions Graph](#)). Use a rain gauge to record precipitation. A “meteorologist job” can be created to help maintain and update the weather day to day. This weather recording center would work best to be done all year long for the students to see the changes. (The [Class Weather Recording Center](#) chart can be enlarged to a poster-size or can be used as a guide to set up a bulletin board in the class.)

Assessment:

Informal Assessment-Conferencing with class

Enrichment/ Extension/

Art connection- Have students paint a watercolor fall tree and write a sentence telling how it is a fall tree.
Use the following website to play a game arranging trees by season:

Homework:

<http://www.ngfl-cymru.org.uk/vtc/seasons/eng/Introduction/MainSessionPart2.htm>

Literature Selection: [Why Do Leaves Change Colors: Fall Weather](#)

Description:

Days 1-3:

Essential Question: How can fall weather be described?

- A. Show the front cover of the book “Why Do Leaves Change Colors” to the students. Have students make predictions about why they think the leaves change color. Write predictions on chart paper.
- B. Read the book: “Why Do Leaves Change Colors”
- C. Discuss the different changes with the class. Review predictions.

Assessment:	Review <i>language</i> and add to “Fall Word Wall”: <ul style="list-style-type: none">• fall• autumn• cool golden leaves
Enrichment/	Teacher Observation
Extension/	Visit the following website that reviews different facts about fall/autumn: http://www.ngfl-cymru.org.uk/vtc/seasons/eng/Introduction/MainSessionPart1.htm
Homework:	Place books about fall in the classroom reading center. Encourage students to check-out books about fall from the media center.

Literature Selection:	<i>Why Do Leaves Change Colors: Fall Weather</i>
Description:	Days 4-6: Essential Question: How can fall weather be described? How does fall weather affect the types of clothing I wear? A. Review standards and <i>language</i> from unit. B. Read the book: “Why Do Leaves Change Colors?” C. The teacher can collect different types of clothing and place in a large box. Make sure to have a mix of attire for cool versus warm weather. Have one student be the “model,” while other students select one piece of clothing and tell if the model can wear it in the fall. Once the model is dressed, the class can give the “thumbs up” or “thumbs down” to tell if the model is appropriately dressed for fall. D. Have students write about what they need to wear in the fall and draw a picture to match their writing.
Assessment:	Writing and illustration
Enrichment/	Take a picture of the “model” and have students create a fall story.
Extension/	
Homework:	

Literature Selection: *Why Do Leaves Change Colors: Fall Weather*

Description:

Days 7-10:

Essential Question:

How do you measure fall weather?

A. Review standards and *language*:

- thermometer
- wind vane
- rain gauge
- temperature
- precipitation
- sky conditions
- weather events

Show students the following items: thermometer, wind vane, rain gauge (If items are not readily available, you can use photos.) Don't tell students how each item is used. Have students make predictions.

Review predictions and tell students the proper uses for the weather tools, if students are not able to tell the uses.

Assessment:

Teacher Observation

**Enrichment/
Extension/
Homework:**

Have students create their own weather instruments using common materials.

Use the following web site to have students "Dress the Bear" for the different weather conditions. This will help you assess the class in their understanding of reading a thermometer.

<http://www.fossweb.com/modulesK-2/AirandWeather/activities/whatstheweather.html>

Literature Selection:	<u>Magnetism</u>
Description:	<p>Days 1-5: Essential Questions: What will attract to a magnet? What will repel from a magnet? What types of objects are attracted to magnets?</p> <p>A. “Magnetic Investigation”- Have students work with a partner to explore magnets. Give each pair one magnet. Have the pairs move around in the classroom and see if the magnet will “stick to” anything. Have students record their findings-what the magnet will and will not stick to in the classroom. Have students share their findings with the class. The teacher should introduce the words: attract and repel. The teacher should make a chart with the headings: Attract and Repel. Fill in the chart.</p> <p> (Caution: Tell students that there are objects that should not be tested because it may cause damage. These objects include: electronic materials, such as, computers, computer disks, tapes, television, VCR, etc.)</p> <p>B. Have students write in their science journal what they have learned about magnets. C. Have students work with a partner. Give each pair: one magnet and several items that are magnetic as well as items that are not magnetic. Use the Magnetic Work Mat. Students should sort objects into the two groups. Have the students draw a picture of the items on the work mat. D. Read: “Magnetism.”</p>
Assessment:	Informal Assessment: Teacher observation Magnetic Work Mat
Enrichment/ Extension/ Homework:	Put books in the class reading center about magnets.

Lesson:	<i>Magnetism</i>
Description:	<p>Days 6-10: Essential Question: Do materials, such as air, water, wood, and paper block a magnetic force? Why? What types of objects are attracted to magnets?</p> <ul style="list-style-type: none">A. Read: "Magnetism."B. Have students work with a partner. Give each pair: one magnet, paper clips, small piece of wood, sheet of paper, and a cup of water. Have students experiment to discover which items block a magnetic force. Have students record their results.C. The teacher should cut apart a piece of steel wool and place the small pieces inside a plastic container with sand. Show students the container. Have students make predictions about ways to get all of the pieces of steel wool out of the sand. Show students a fork, spoon, magnetic wand, etc. Allow students to predict what tool would be best suited to use for the job. Have students use each tool. Check predictions. Ask students why the magnetic wand was the best choice. Help students draw the conclusion that the steel wool is attracted to the magnet. Refer to page 6 in the book "Magnetism." Have students write in their science journal about this activity.D. Play the "Do We Attract" game. This game will have two students at a time stand in the front of the classroom. The two students should face each other and put both hands in the air, palms facing each other. One student will be the magnet. The other student will be an object that the teacher calls out. Once the teacher calls out the object, the students will either touch hands together (similar to a two-handed high five) if the object would attract to a magnet OR students will remain standing, hands apart, if the object does not attract. The teacher should allow all students a chance to be the magnet or be an object. (Alternatives: The "magnet" can be the teacher. The teacher can create two teams in the class and give points for the correct answer.)
Assessment:	Informal Assessment: Teacher observation and science journal entry
Enrichment/ Extension/ Homework:	Reread the book: "Why Do Leaves Change Colors?" by Betsy Maestro OR read another book about the season fall. Have students investigate the pictures; looking for items would attract and would not attract to a magnet.
Homework:	Have students make a magnet for their parents. The students can use a piece of foam and a marker to write one fact they have learned about the season fall. Use magnetic tape to attach the foam.

Literature Selection: [Weather Words](#)

Description:

Days 1-7:

Essential Questions:

How can fall weather be described?

How do you measure fall weather?

Teacher Instructions:

1. Read “Weather Words.”
2. Review the *language*.
3. Discuss the different types of weather the class has been recording in the “Weather Recording Center” for the current season fall.
4. Create a Weather Dictionary (Class Big Book). Have students work in pairs. Assign each pair a weather word. The students must create a simple definition for their word and illustrate the word. When all students are done, the class will have to organize the words like a dictionary. They will decide which word will come first alphabetically. Teacher will bind the book and place in the “Weather Recording Center.”

Assessment:

[Weather Dictionary Rubric](#)

**Enrichment/
Extension/
Homework:**

Have students find pictures in magazines to create a class collage of weather words.

Literature Selection: <i>Weather Words</i>	
Description:	<p>Days 8-10: Essential Questions: How can fall weather be described? How do you measure fall weather?</p> <p>Teacher Instructions:</p> <ol style="list-style-type: none">1. Make a K-W-L chart about hurricanes as a whole group. Fill in the K-know and W-want to know about hurricanes. Explain to students that hurricane season occurs in the fall. Read: "Eye of the Storm: A book about hurricanes" by Rick Thomas or another book about hurricanes. Tell students that a hurricane is a weather event. Obtain a hurricane tracking map. Track tropical storms and hurricanes as they occur. Place the hurricane tracking map in the "Weather Recording Center." (Tracking maps can be found at the following website: http://www.nhc.noaa.gov/)2. Fold a piece of cardstock or construction paper in half. Have students illustrate a picture of a hurricane on the top piece of the paper. On the bottom part, have students write sentences telling what they learned about hurricanes from the book and class discussion. Remind students about the new weather words they have learned and try to include the weather words in their writing.3. Complete the K-W-L chart. Fill in the L-learned part of the chart with students. Encourage students to use weather words to tell about hurricanes.
Assessment:	Teacher Observation Hurricane tracking map
Enrichment/ Extension/ Homework:	Visit a local television station to learn about hurricanes, or invite a meteorologist/weather reporter from the station to visit your class. Use the following website to understand hurricanes and show pictures of hurricanes to your students: http://www.miamisci.org/hurricane/

TEACHER RESOURCES

Additional Children's Literature:

Eye of the Storm: A book about Hurricanes by: Rick Thomas

Gusts and Gales: A book about Wind by: Josepha Sherman

Red Leaf, Yellow Leaf by: Lois Ehlert

Web Resources:

<http://kids.aol.com/homework-help/junior/science/magnets>

http://www.bbc.co.uk/schools/scienceclips/ages/7_8/magnets_springs.shtml

http://www.gailgibbons.com/teachers_guide.html

<http://www.srh.noaa.gov/ffc/html/teacher.shtml>

<http://theweatherchannelkids.com>

Weather Recording Center

Season: _____

Today's Temperature:

Rain Gauge Measurement:

Have students draw pictures that represent the season and put inside this box.

Staple the monthly sky conditions graph here.

Paste the special weather event information here.
*(Example:
hurricane/tropical storm
tracking map)*

Sky Conditions Graph

Month: _____

Number of Days

12						
11						
10						
9						
8						
7						
6						
5						
4						
3						
2						
1						
0	Sunny	Cloudy	Rainy	Windy	Foggy	Snowy

Sky Conditions

Magnetic Work Mat

things that are magnetic	things that are not magnetic

Weather Dictionary Rubric

Name: _____

CATEGORY	3	2	1	Score
Required Elements	Student completed definition and illustration.	Student completed one of the two required elements.	Student did not complete the required elements.	
Knowledge Gained	Student did all of the following: included a correct definition and an accurate illustration.	Student did one of the following correctly: included a correct definition and an accurate illustration.	Student included an incorrect definition and inaccurate illustration.	
Attractiveness	The dictionary page is exceptionally attractive in terms of design, layout, and neatness.	The dictionary page is acceptably attractive though it may be a bit messy.	The dictionary page is distractingly messy or very poorly designed. It is not attractive.	
TOTAL SCORE				_____

Lab Coat Rubric

Group Members: _____

CATEGORY	3	2	1	Score
Required Elements	The lab coat has all of the required elements: magnet language, at least 3 pictures showing objects that attract to magnets, fall language, fall illustrations must include: a fall tree, fall clothing, and fall weather.	The lab coat has all but two of the required elements: magnet language, at least 3 pictures showing objects that attract to magnets, fall language, fall illustrations must include: a fall tree, fall clothing, and fall weather.	The lab coat is missing most of the required elements.	
Knowledge Gained	Student included all of the following on the lab coat and is accurate: magnet language, at least 3 pictures showing objects that attract to magnets, fall language, fall illustrations must include: a fall tree, fall clothing, and fall weather.	Student included all of the following on the lab coat and 80% of the information is accurate: magnet language, at least 3 pictures showing objects that attract to magnets, fall language, fall illustrations must include: a fall tree, fall clothing, and fall weather.	Student included all of the following on the lab coat and 50% of the information is accurate: magnet language, at least 3 pictures showing objects that attract to magnets, fall language, fall illustrations must include: a fall tree, fall clothing, and fall weather.	
Attractiveness	The lab coat is exceptionally attractive in terms of design, layout, and neatness.	The lab coat is acceptably attractive though it may be a bit messy.	The lab coat is distractingly messy or very poorly designed. It is not attractive.	
TOTAL SCORE				_____