

3RD GRADE

A Complete 5E Science Unit with Lesson Plans

WEATHER PATTERNS

Engage, Explore, Explain, Extend, Evaluate

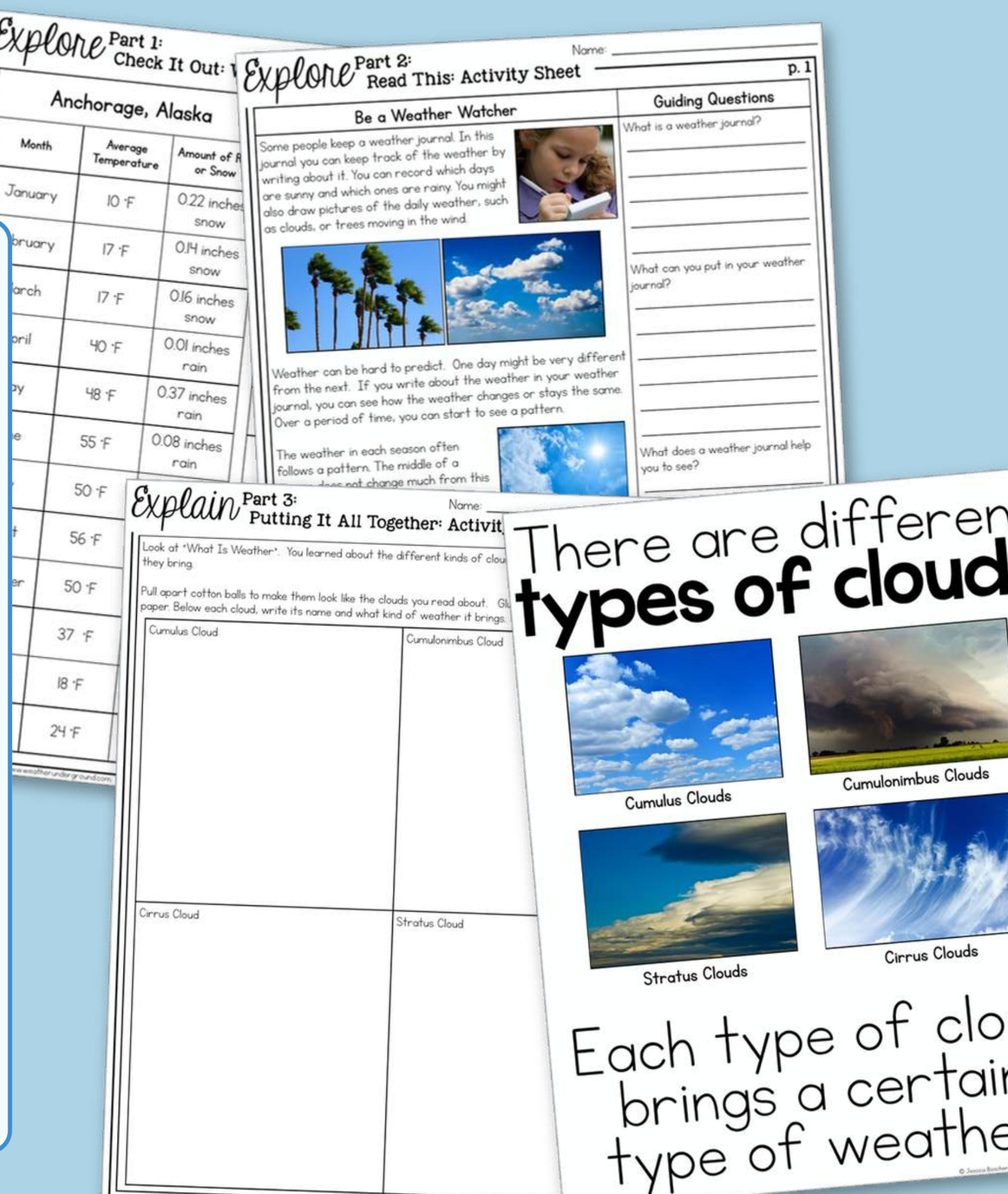
NGSS 3-ESS2-1

KEEP SCROLLING TO SEE WHAT'S INSIDE!

WHAT'S INCLUDED

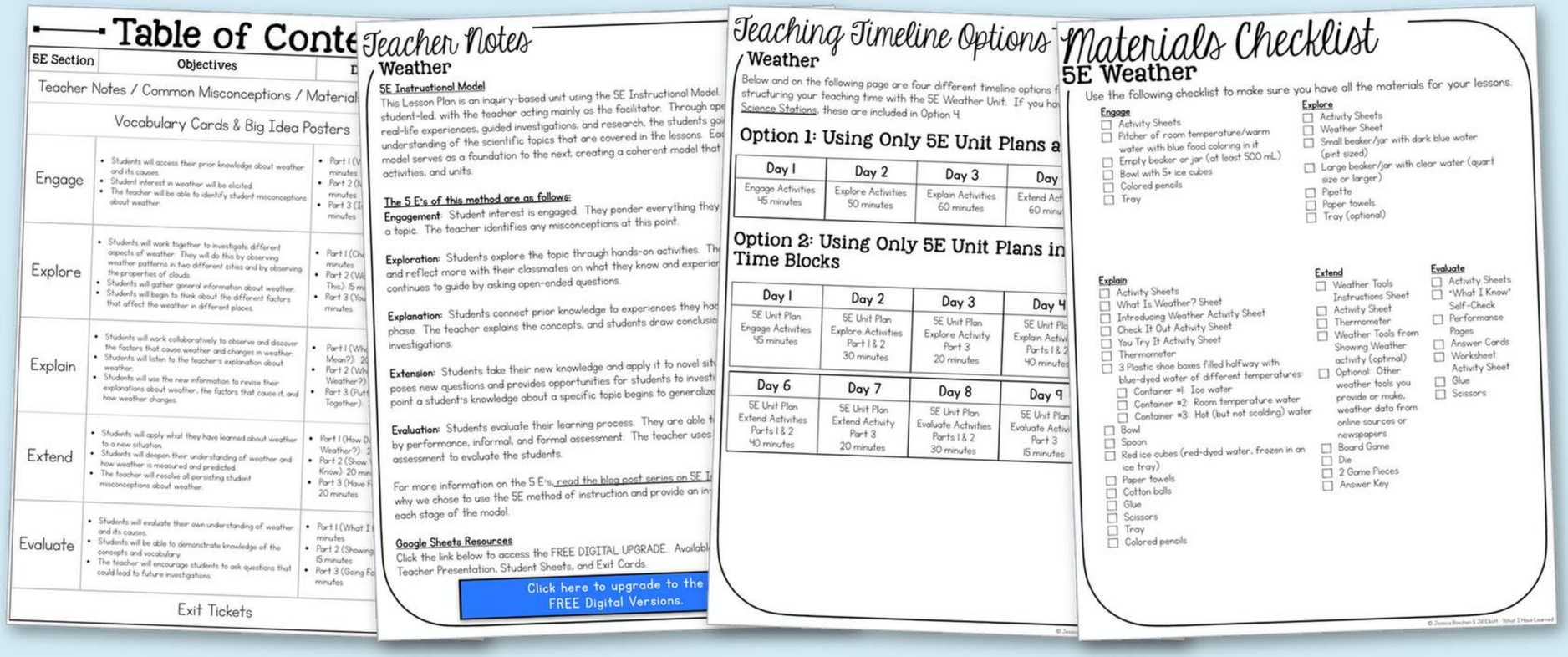
5E WEATHER PATTERNS UNIT

- 220+ Page 5E Unit Plan
- Lesson Plans for All 5 Phases
- Teacher Notes and Misconceptions
- Materials Checklist and 4 Timelines
- Hands-On Weather Investigations
- Reading Passages on Weather
- Vocabulary Cards and Big Idea Posters
- Exit Tickets in 3 Formats
- Performance Assessment
- Answer Keys for Student Pages
- Google Slides and Google Forms Versions



UNIT AT A GLANCE

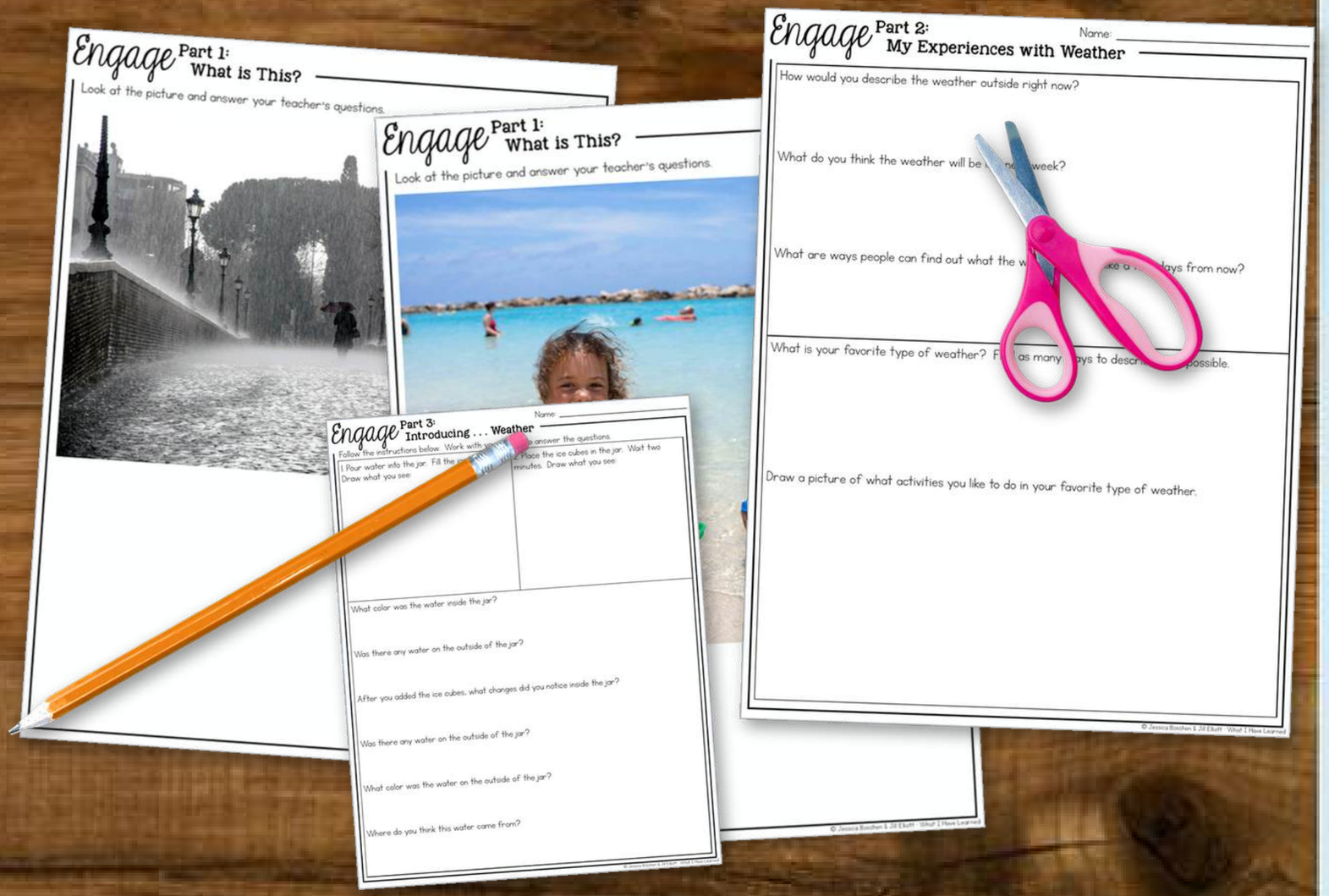




- Students compare city weather charts, make a cloud in a jar, and track a week of weather.
- Teacher background, lesson plans, and student pages in every phase.
- Aligned to NGSS 3-ESS2-1.

Table of Contents | **Teacher Notes** | **Timeline Options** | **Materials Checklist**

ENGAGE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Spark curiosity with a jar of ice water

1 What Is This?

Students look at weather pictures and describe what they see.

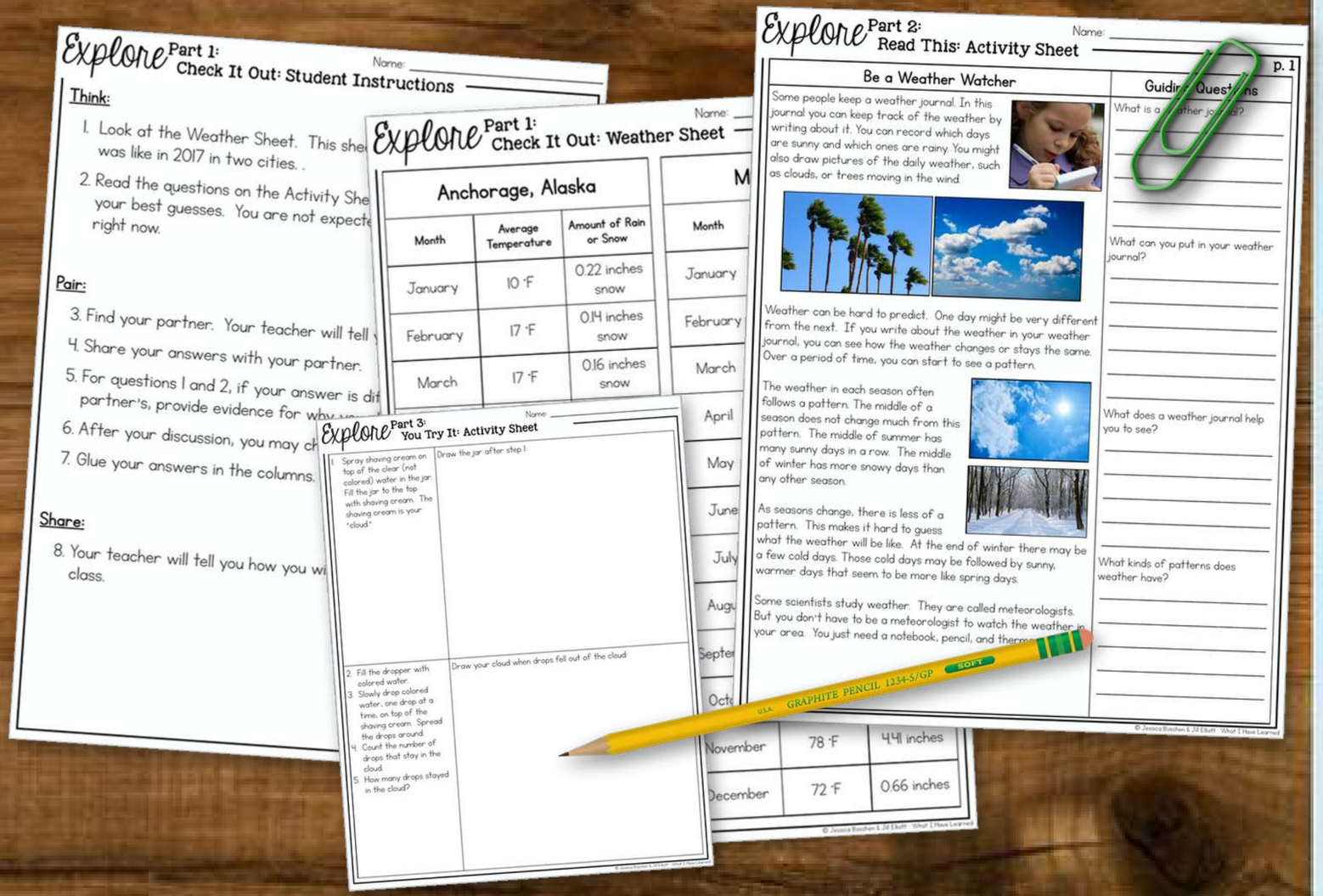
2 My Experiences

Students describe today's weather, predict next week's, and tell how people find out.

3 Introducing Weather

Students put ice cubes in a jar of water and observe what happens on the outside.

EXPLORE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Investigate weather patterns

1 Check It Out

Students compare a year of weather in Anchorage and Miami and decide what to pack.

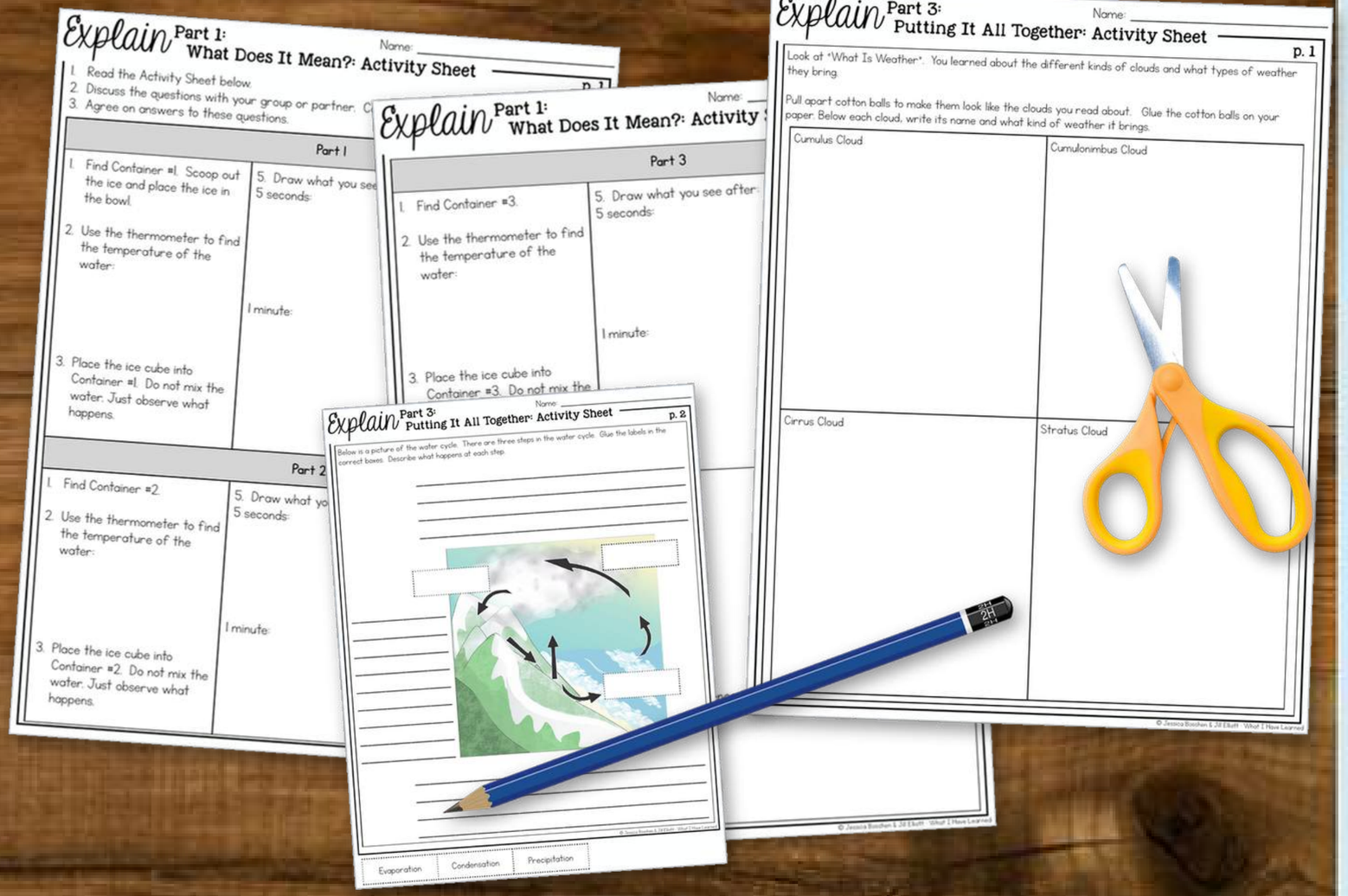
2 Watch and Read This

Students read how weather watchers keep a weather journal.

3 You Try It

Students make a shaving cream cloud and add colored water to see rain fall.

EXPLAIN



Teacher background, lesson plans, student pages, and answer key

E E E E E

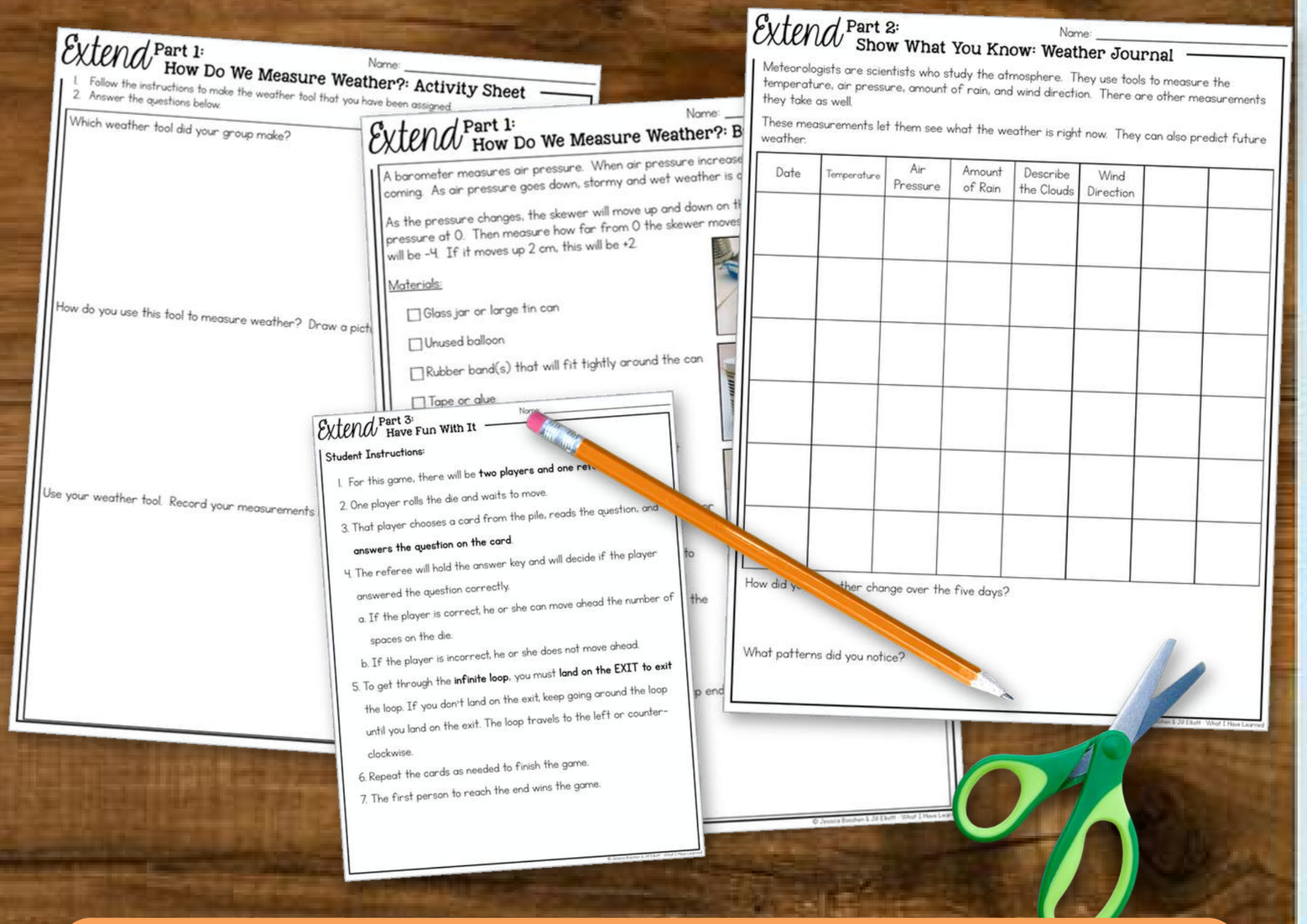
Build explanations from evidence

1 What Does It Mean?
Students use containers, ice, and a thermometer to see how temperature changes.

2 What Is Weather?
Students read about clouds, the water cycle, and seasons and sum up what they learned.

3 Putting It All Together
Students glue cotton balls to build the cloud types and match each to its weather.

EXTEND



Teacher background, lesson plans, student pages, and answer key

E E E E E

Apply weather tools to the real world

1

How Do We Measure Weather?

Students make a barometer, wind vane, or rain gauge and explain how it works.

2

Show What You Know

Students act as meteorologists and track the weather in a journal for five days.

3

Have Fun With It

Students roll a die and answer weather questions in a board game.

EVALUATE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Check understanding with evidence

1 What I Know

Students use keywords to explain the water cycle and seasons and score themselves with a rubric.

2 Showing Weather

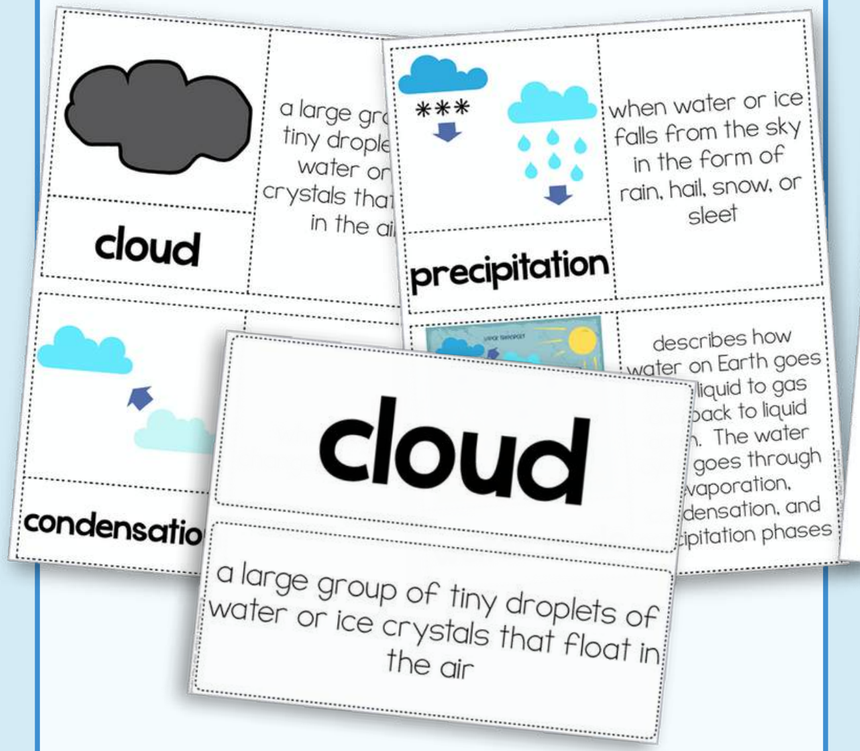
Students place pictures in the temperature, precipitation, and clouds boxes.

3 Going Forward

Students write a new question and hypothesis about weather.

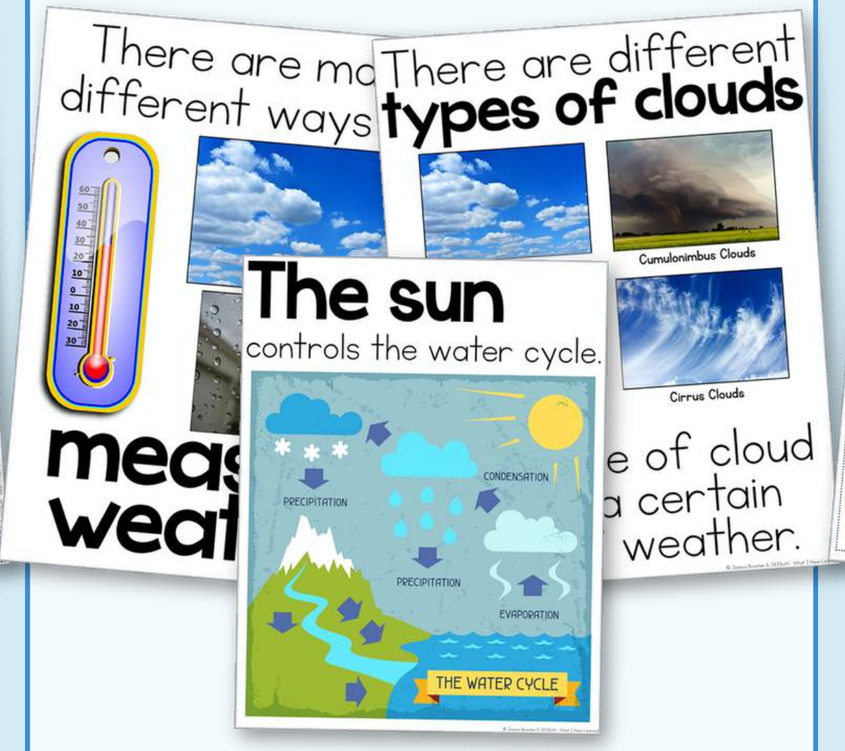
VOCABULARY, POSTERS & EXIT TICKETS

VOCABULARY CARDS



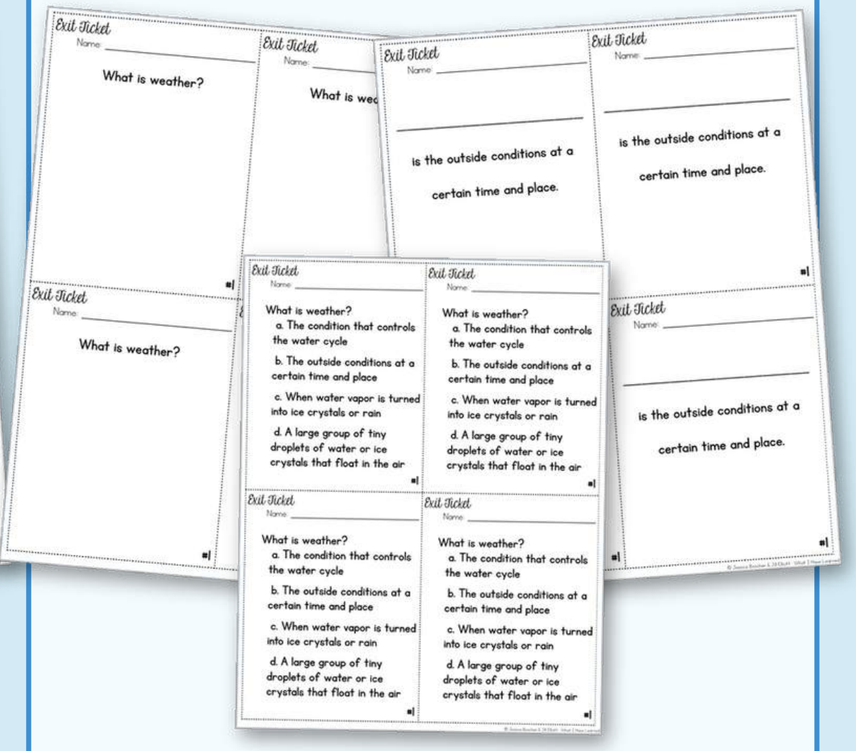
Picture cards and word cards for cloud, precipitation, condensation, water cycle, and more.

BIG IDEA POSTERS



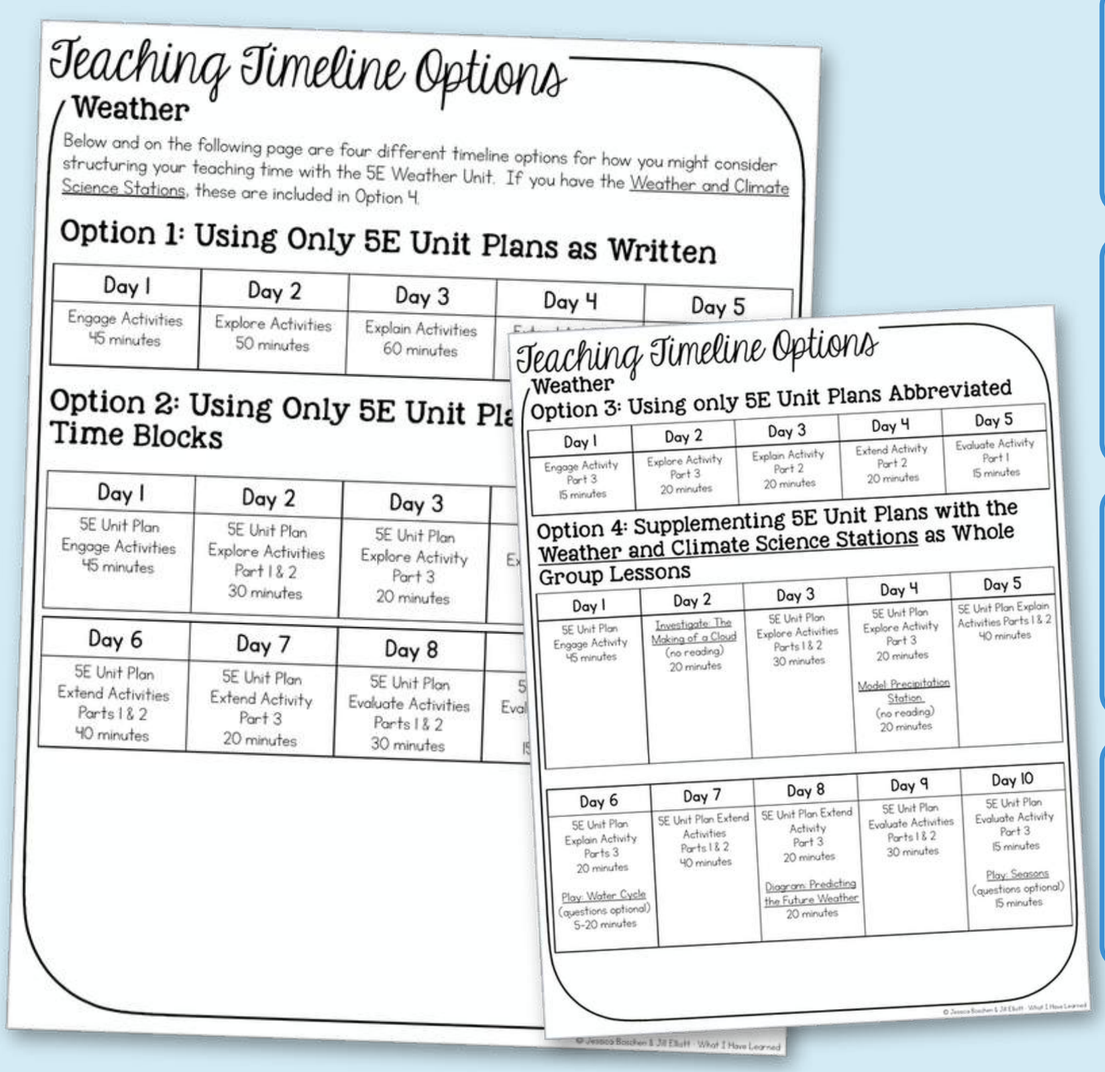
Four posters on measuring weather, cloud types, the water cycle, and seasons.

EXIT TICKETS



15 exit tickets, each in short answer, fill-in-the-blank, and multiple choice formats.

WAYS TO USE IN YOUR CLASSROOM



Teaching Timeline Options

Weather

Below and on the following page are four different timeline options for how you might consider structuring your teaching time with the 5E Weather Unit. If you have the Weather and Climate Science Stations, these are included in Option 4.

Option 1: Using Only 5E Unit Plans as Written

Day 1	Day 2	Day 3	Day 4	Day 5
Engage Activities 45 minutes	Explore Activities 50 minutes	Explain Activities 60 minutes		

Option 2: Using Only 5E Unit Pla
Time Blocks

Day 1	Day 2	Day 3	
5E Unit Plan Engage Activities 45 minutes	5E Unit Plan Explore Activities Part 1 & 2 30 minutes	5E Unit Plan Explore Activity Part 3 20 minutes	Ex

Day 6	Day 7	Day 8	
5E Unit Plan Extend Activities Parts 1 & 2 40 minutes	5E Unit Plan Extend Activity Part 3 20 minutes	5E Unit Plan Evaluate Activities Parts 1 & 2 30 minutes	Eval

Teaching Timeline Options

Weather

Option 3: Using only 5E Unit Plans Abbreviated

Day 1	Day 2	Day 3	Day 4	Day 5
Engage Activity Part 3 15 minutes	Explore Activity Part 3 20 minutes	Explain Activity Part 2 20 minutes	Extend Activity Part 2 20 minutes	Evaluate Activity Part 1 15 minutes

Option 4: Supplementing 5E Unit Plans with the Weather and Climate Science Stations as Whole Group Lessons

Day 1	Day 2	Day 3	Day 4	Day 5
5E Unit Plan Engage Activity 45 minutes	Investigate: The Making of a Cloud (no reading) 20 minutes	5E Unit Plan Explore Activities Parts 1 & 2 30 minutes	5E Unit Plan Explore Activity Part 3 20 minutes Model: Precipitation Station (no reading) 20 minutes	5E Unit Plan Explain Activities Parts 1 & 2 40 minutes

Day 6	Day 7	Day 8	Day 9	Day 10
5E Unit Plan Explain Activity Parts 3 20 minutes Play: Water Cycle (questions optional) 5-20 minutes	5E Unit Plan Extend Activities Parts 1 & 2 40 minutes	5E Unit Plan Extend Activity Part 3 20 minutes Diagram: Predicting the Future Weather 20 minutes	5E Unit Plan Evaluate Activities Parts 1 & 2 30 minutes	5E Unit Plan Evaluate Activity Part 3 15 minutes Play: Seasons (questions optional) 15 minutes

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1 Whole-Class 5E Unit

Teach one phase a day over 5 days as written, with 45 to 60 minutes per phase.

2 Shorter Science Blocks

Spread the unit across 9 days in shorter time blocks when science minutes are limited.

3 Alongside Science Stations

Add the Weather and Climate Science Stations for a 10-day plan.

4 Formative Checks

Use the exit tickets throughout the unit to see who needs reteaching before the performance activity.

TEACHING TIMELINE OPTIONS

Option 1 — 5 days
As Written

Day 1	Day 2	Day 3	Day 4	Day 5
Engage	**Explore**	**Explain**	**Extend**	**Evaluate**
45 min	50 min	60 min	60 min	45 min

Option 2 — 9 days
Shorter Time Blocks

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
Engage	**Explore 1-2**	**Explore 3**	**Explain 1-2**	**Explain 3**	**Extend 1-2**	**Extend 3**	**Evaluate 1-2**	**Evaluate 3**
45 min	30 min	20 min	40 min	20 min	40 min	20 min	30 min	15 min

Option 3 — 5 days
Abbreviated

Day 1	Day 2	Day 3	Day 4	Day 5
Engage 3	**Explore 3**	**Explain 2**	**Extend 2**	**Evaluate 1**
15 min	20 min	20 min	20 min	15 min

Option 4 — 10 days
With Science Stations

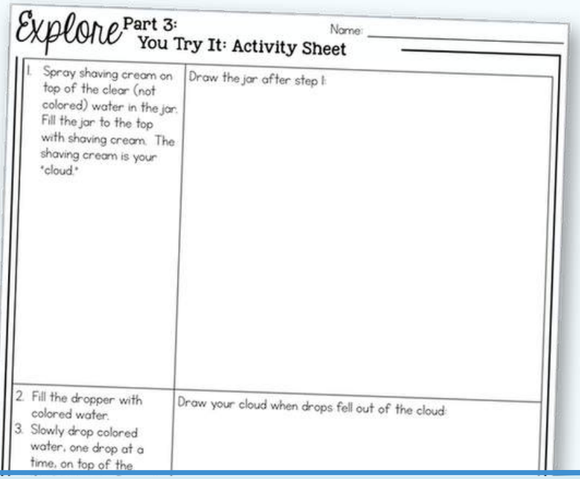
Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Engage	**Investigate**	**Explore 1-2**	**Explore 3**	**Explain 1-2**	**Explain 3**	**Extend 1-2**	**Extend 3**	**Evaluate 1-2**	**Evaluate 3**
45 min	20 min	30 min	20 min +20 station	40 min	20 min +20 station	40 min	20 min +20 station	30 min	15 min +15 station

Orange days are Science Station lessons. Magenta notes are extra station activities you can add that day.

YOU WILL LOVE THIS BECAUSE

Hands-On From Day One

Students make a cloud in a jar, build weather tools, and keep a weather journal, so weather makes sense.

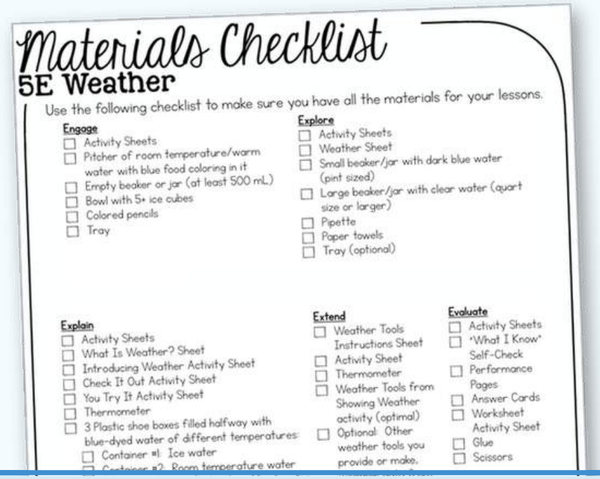

Explore Part 3: You Try It: Activity Sheet

Name: _____

1. Spray shaving cream on top of the clear (not colored) water in the jar. Fill the jar to the top with shaving cream. The shaving cream is your "cloud."	Draw the jar after step 1:
2. Fill the dropper with colored water. 3. Slowly drop colored water, one drop at a time, on top of the	Draw your cloud when drops fell out of the cloud:

Planned and Ready to Teach

Teacher notes, a misconceptions guide, a materials checklist, and answer keys are done for you.


Materials Checklist

5E Weather

Use the following checklist to make sure you have all the materials for your lessons.

Engage
- ☐ Activity Sheets
- ☐ Pitcher of room temperature/warm water with blue food coloring in it
- ☐ Empty beaker or jar (at least 500 mL)
- ☐ Bowl with 5+ ice cubes
- ☐ Colored pencils
- ☐ Tray

Explore
- ☐ Activity Sheets
- ☐ Weather Sheet
- ☐ Small beaker/jar with dark blue water (pint sized)
- ☐ Large beaker/jar with clear water (quart size or larger)
- ☐ Pipette
- ☐ Paper towels
- ☐ Tray (optional)

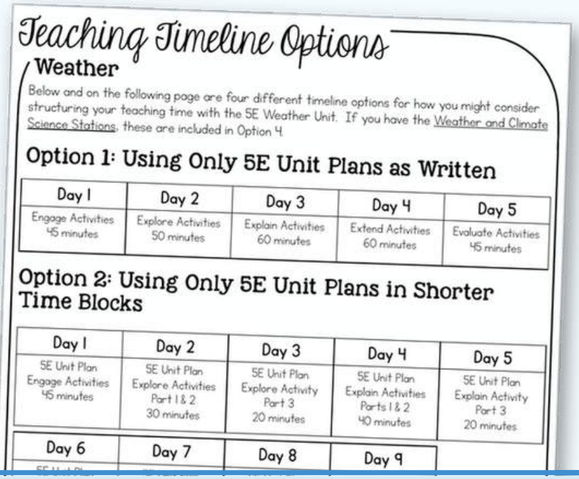
Explain
- ☐ Activity Sheets
- ☐ What Is Weather? Sheet
- ☐ Introducing Weather Activity Sheet
- ☐ Check It Out Activity Sheet
- ☐ You Try It Activity Sheet
- ☐ Thermometer
- ☐ 3 Plastic shoe boxes filled halfway with blue-dyed water of different temperatures:
  - ☐ Container #1: Ice water
  - ☐ Container #2: Room temperature water

Extend
- ☐ Weather Tools Instructions Sheet
- ☐ Activity Sheet
- ☐ Thermometer
- ☐ Weather Tools from Showing Weather activity (optional)
- ☐ Optional: Other weather tools you provide or make.

Evaluate
- ☐ Activity Sheets
- ☐ "What I Know" Self-Check
- ☐ Performance Pages
- ☐ Answer Cards
- ☐ Worksheet Activity Sheet
- ☐ Glue
- ☐ Scissors

Fits Your Schedule

Choose from 4 timeline options, and use the Google Slides and Google Forms versions for a print or digital classroom.


Teaching Timeline Options

Weather

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Option 2: Using Only 5E Unit Plans in Shorter Time Blocks

Day 1	Day 2	Day 3	Day 4	Day 5
5E Unit Plan Engage Activities 45 minutes	5E Unit Plan Explore Activities Part 1 & 2 30 minutes	5E Unit Plan Explore Activity Part 3 20 minutes	5E Unit Plan Explain Activities Parts 1 & 2 40 minutes	5E Unit Plan Explain Activity Part 3 20 minutes
Day 6	Day 7	Day 8	Day 9	

TEACHERS LOVE IT!

★★★★★

This Weather 5E Science Unit was a total lifesaver! It's well-organized, easy to follow, and filled with fun, hands-on activities that kept my third graders engaged.

Krystal Warketnin

★★★★★

This was a great addition to my lacking curriculum on weather. The students really enjoyed the activities provided in this resource.

Story on Paige One

★★★★★

Was able to make it fit my needs. Had tons of possibilities. Was very engaging!

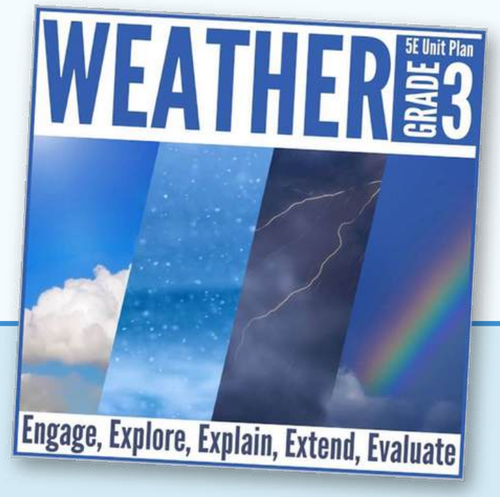
Katelynn H.





READY FOR YOUR CLASSROOM

- **Instant digital download**
- **Print and use the activities**
- **Google Slides and Forms versions**

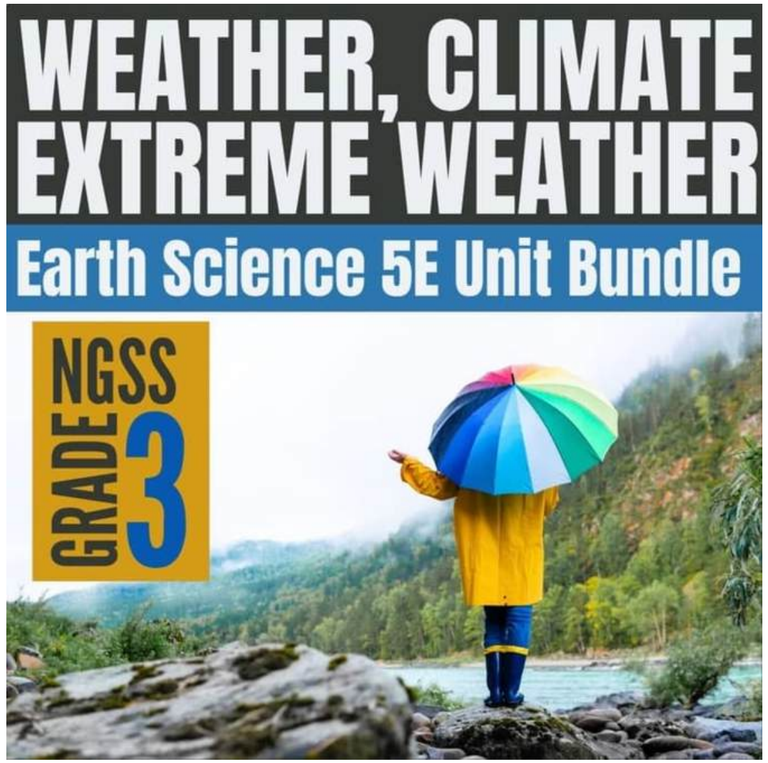


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Save with a topic bundle or the full-year bundle.

TOPIC BUNDLE

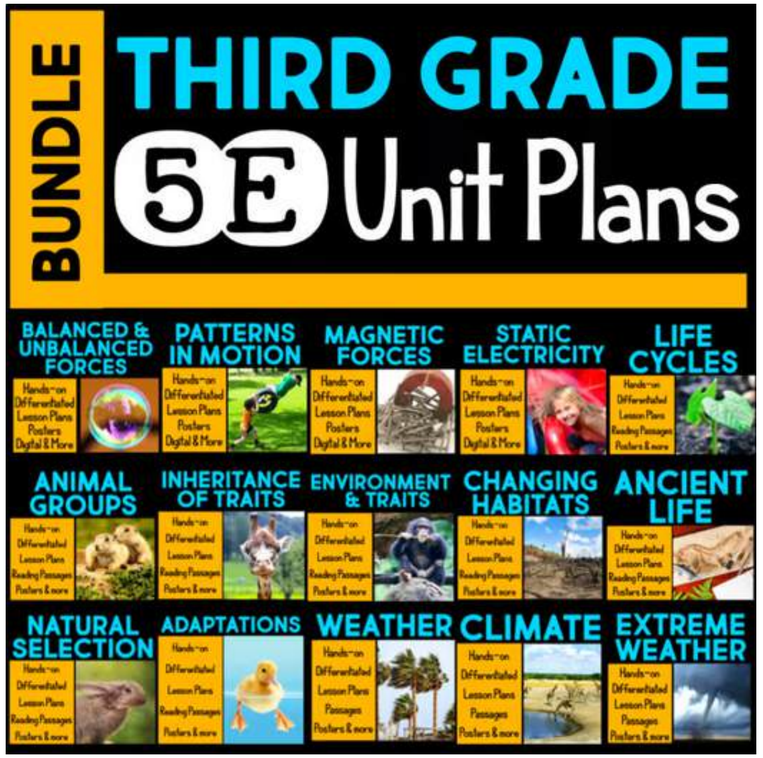
GOOD VALUE



SEE THE BUNDLE

FULL-YEAR BUNDLE

BEST VALUE



SEE THE BUNDLE

My passion is making learning accessible to all students.
I love scaffolding learning, breaking down the concepts and building them up so that students can see the connections.
I love figuring out the small components that build up to the big ideas and helping students see it all.



teach MATH | teach SCIENCE | teach READING | teach WRITING

What I have LEARNED