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# How to Use This Product

## Strategy Overview Pages

- ▶ Each strategy section begins with an overview of the strategy. The strategy is described and the reasons it is successful in the classroom are outlined.
- ▶ The final page in the overview for each strategy is a step-by-step listing of how to implement the strategy in any classroom.

## Sample Lesson Plans

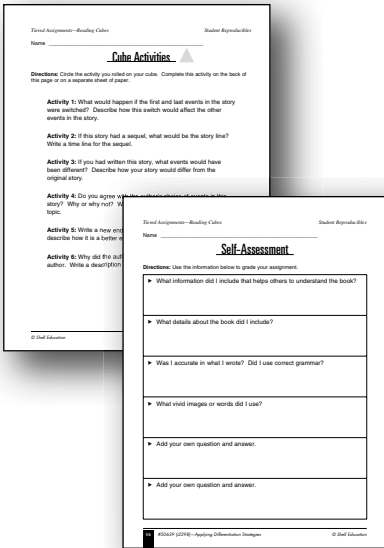
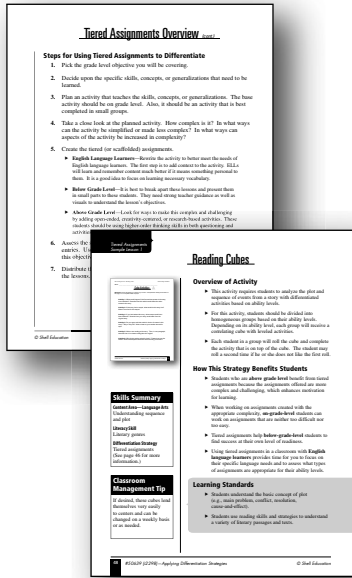
- ▶ Each strategy has at least one sample lesson to concretely illustrate how the strategy can be used with common curriculum topics. Teachers can use the lessons as they are written, or they can reference these models as they begin creating their own differentiated lessons.
- ▶ Each lesson includes a description of exactly how the strategy benefits different kinds of learners.

## Student Reproducibles

- ▶ All the sample lessons have student pages included for teacher use. These pages are needed to fully implement the lessons. Many of these pages can also be used as teachers write their own differentiated curricula.
- ▶ The student reproducibles are included on the CD for easy printing or reference. A list of the filenames of each PDF is included in Appendix E.

## Teacher Resource CD

- ▶ The CD is intended to allow for easy access to the resources in this book. PDFs of all the student reproducibles are included on the CD.
- ▶ Also included are the steps for using each strategy in one easy-to-print PDF. This file can be downloaded to home and school computers for easy access.
- ▶ See Appendix E (pages 302–303) for a complete list of all the files on the Teacher Resource CD.



# The Water Cycle

## Overview of Activity

- ▶ Create a choices board organizer for your classroom using an overhead transparency. (An example is shown on page 168.)
- ▶ Students get to choose two activities from the choices board. One activity is academically appropriate and the other activity should be a challenge. There is a symbol listed for each activity, which identifies the difficulty of that activity.
- ▶ For the more challenging activity, students will work with partners.

Choices—The Water Cycle Student Responsibilities

Name \_\_\_\_\_

### Water Cycle Choices Board

Directions: Choose two activities from the choices below. Make sure your choices correspond with the two symbols your teacher assigned to you.

Prevent you are one of the parts of the water cycle, such as evaporation. Illustrate the water cycle and what life would be like without you.	Create a poster that shows the water cycle and how it works.	Find examples of condensation you may see in nature or in the classroom. List them or take pictures of them.	How does the water cycle affect climate? Create a map of three different regions, and explain how their climates are affected by the water cycle.
How is the water cycle like a busy city? A building? Create a model of the water cycle by the three items above by creating a visual poster.	You are a drop of water. Show your life from beginning to end, as in a baby book format.	You are a news reporter. Report why there has been a lot of rain lately. Read a weather forecast to show to your news audience.	Create an experiment that shows one of the parts of the water cycle. Report your observations for the class. Write a report on your experiment concerning the water cycle.
All out the water cycle and each part of it with three symbols. Create simple signs and captions for your presentation.	Create a conversation between condensation and evaporation, with each stating why one is more important than the other.	Create an outline for a drop of water, explaining its life.	Create a PowerPoint presentation that shows the water cycle. Why is it important to Earth's weather? Present it to the class.
How is water made safe for us to drink? You are an environmentalist. Make a poster about the water cycle that shows the effects you have on it.	Create a set of flash cards concerning the water cycle and its effects. Provide answers for them.	All of Earth's oceans have dried up. How is that going to affect the water cycle? Report this effect in a newspaper news item through a television broadcast.	Create a list of questions you would like to ask a meteorologist about the water cycle. Write them, then write a letter to a local meteorologist to get the answers to your questions.

168 #50639 (i2298)—Applying Differentiation Strategies © Shell Education

## Skills Summary

### Science

The water cycle

### Literacy Skill

Using new information

### Differentiation Strategy

Choices (See page 154 for more information.)

## Classroom Management Tip

Choices boards can also be made using a bulletin board. Keep this bulletin board up and implement this differentiation strategy once a week. Some teachers like to skip the symbols and place the activities in specific rows. Advanced students would choose from activities in one row, English language learners would choose from another row, etc.

## How This Strategy Benefits Students

- ▶ In trying to meet **above-grade-level** students' needs, a choices board can provide these students with independence by allowing them to make their own choices and decisions about assignments.
- ▶ When **on-grade-level** students get the chance to choose challenging activities, they boost their self-esteem, challenge their thinking abilities, and improve their cooperative learning skills.
- ▶ **Below-grade-level** students are able to be successful with their independent work since the activities are leveled specifically for them.
- ▶ **English language learners** have the opportunity to choose activities from the list, which helps them feel more comfortable with the assignment. Modifications are made to meet their language needs.

## Learning Standards

- ▶ Students know the processes involved in the water cycle and its effects on climatic patterns.
- ▶ Students use reading skills and strategies to understand and interpret a variety of informational texts.

# The Water Cycle *(cont.)*



## Preparation

1. Create a choices board organizer for your classroom using the *Group Cards* (pages 169–172). A pocket chart works well for this. Or, you can glue library card holders to poster board and create the chart that way. The chart should be 4 x 4 to fit all 16 task assignments. Display the chart in the classroom.
2. Copy the *Water Cycle Choices Board* (page 168) for the students.
3. Copy the *Choices Board Assessment* (page 173) for the students.

## Whole-Class Activity

1. Toward the end of the unit on the water cycle and weather, create a choices board for your students as a way of assessment and application. To make a choices board, write the assignments on different cards. Then, randomly place the cards in pockets on a hanging chart. One way to keep students from distinguishing ability grouping on the chart is to give each assignment a shape, such as the ones provided in the sample *Group Cards* (pages 169–172).
2. Begin by assigning students symbols according to their ability levels. Above-grade-level students should be triangles, on-grade-level students should be squares, English language learners should be stars, and the below-grade-level students should be circles. Do not discuss the specific levels with students. Instead, talk to them in terms of the different symbols. In other words, you do not need to tell them that they are choosing one activity on their level. Just tell them to pick from one symbol.
3. Display the choices board pocket chart at the front of the room. Read through the list of options for your students and explain that each student will be choosing one activity that correlates with the shape assigned. Answer any questions the students may have. It might be helpful for students to have their own copies of this choices board. The *Water Cycle Choices Board* (page 168) would be a page your students could reference as they work on these assignments. A blank copy of this page is provided on page 174 and on the CD so that you can more easily create your own choices boards (filename: choices.doc).

# The Water Cycle *(cont.)*



## Whole-Class Activity *(cont.)*

- Next, explain that after the students complete the first activity, they will be choosing an additional activity with partners who have been assigned to them. For these additional activities, students will be choosing from a more challenging list of activities. To do this, have on-grade-level students choose an activity from the triangle category, English language learners should choose an activity from the circle category, and below-grade-level students should choose an activity from the square category. The above-grade-level students will create their own activities.
- To make sure your English language learners and below-grade-level students understand the assignments, meet with them in small groups and reexamine the choices on the choices board. Make sure the English language learners consult you or another student if they experience difficulty on the independent activity.
- Give your students the entire class time to complete the first activity. If time permits, let them work on the second activity. Otherwise, provide time at the beginning of the next class to complete these assignments.

















## Assessment

- Give students the opportunity to assess their own work. Distribute copies of the *Choices Board Assessment* (page 173) to your students and give them time to assess their work. Ask your students if they want to add any categories to further assess their work. Add these ideas to the list.
- Explain to students that as you review their assessments, you will not only be looking at the work they completed, but also at their own assessments in order to assign a grade.
- If possible, let each student present one of the two activities to the class. If students worked on an activity with partners, they can present it together.

Name \_\_\_\_\_

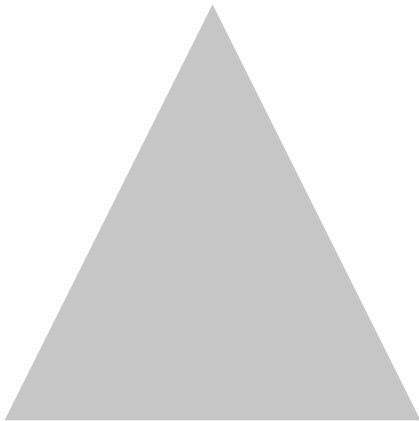
# Water Cycle Choices Board

**Directions:** Choose two activities from the choices below. Make sure your choices correspond with the two symbols your teacher assigned to you.

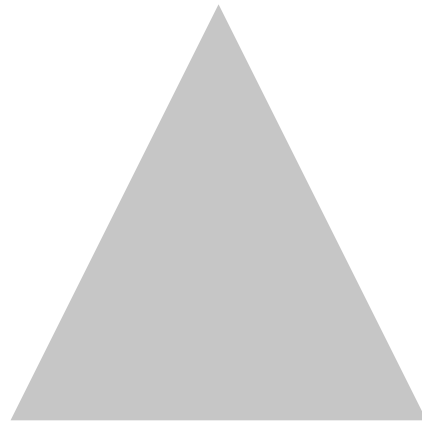
<p>Pretend you are one of the parts of the water cycle, such as evaporation. Explain why you are important to the water cycle and what life would be like without you.</p> 	<p>Create a poster that shows the water cycle and how it works.</p> 	<p>Find examples of condensation you may see in nature or in the classroom. List them or take pictures of them.</p> 	<p>How does the water cycle affect climates? Create a map of three different regions, and explain how their climates are affected by the water cycle.</p> 
<p>How is the water cycle like a busy city? A business? A three-ringed circus? Compare the water cycle to the three items above by creating a colorful poster.</p> 	<p>You are a drop of water. Show your life, from beginning to end, in a “baby book” format.</p> 	<p>You are a news reporter. Report why there has been a lot of precipitation over the past few days. Make a weather board to show to your news audience.</p> 	<p>Create an experiment that shows one of the processes from the water cycle. Conduct your experiment for the class. You may research various experiments that you might adapt concerning the water cycle using the Internet.</p> 
<p>Act out each part of the water cycle with three friends. Create simple props and costumes for your presentation.</p> 	<p>Create a conversation between condensation and evaporation, with each stating why one is more important than the other.</p> 	<p>Create an obituary for a drop of water, explaining its life.</p> 	<p>Create a PowerPoint presentation that shows the water cycle. Why is it important to Earth’s weather? Present it to the class.</p> 
<p>How is water made safe for us to drink? You are an environmentalist, explaining the process that makes water safe in an article you have written.</p> 	<p>Create a set of flash cards concerning the water cycle and its effects.</p> 	<p>All of Earth’s oceans have dried up. How is that going to affect the water cycle? Report this effect in an important news flash through a television broadcast.</p> 	<p>Create a list of questions you would like to ask a meteorologist about the weather and the water cycle. Then, either write a letter to a local meteorologist to get the answers, or research the answers yourself.</p> 

# Triangle Group Cards

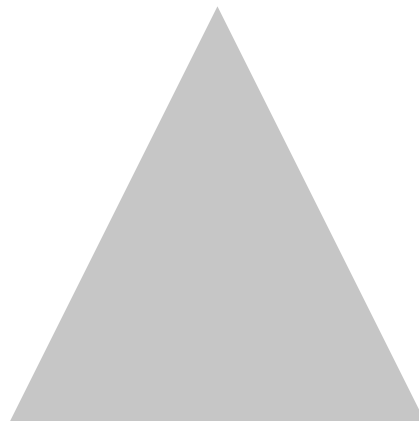
How does the water cycle affect climates? Create a map of three different regions and explain how their climates are affected by the water cycle.



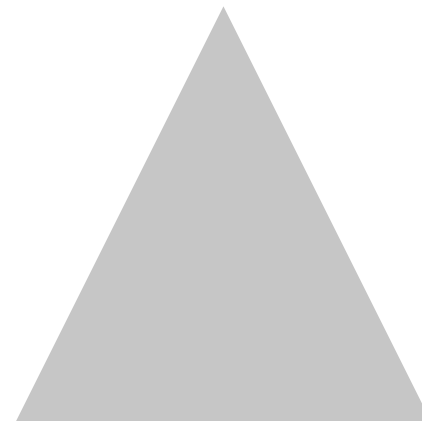
How is the water cycle like a busy city? A business? A three-ringed circus? Compare the water cycle to the three items above by creating a colorful poster.



Create a list of questions you would like to ask a meteorologist about the weather and the water cycle. Then, either write a letter to a local meteorologist to get the answers or research the answers yourself.



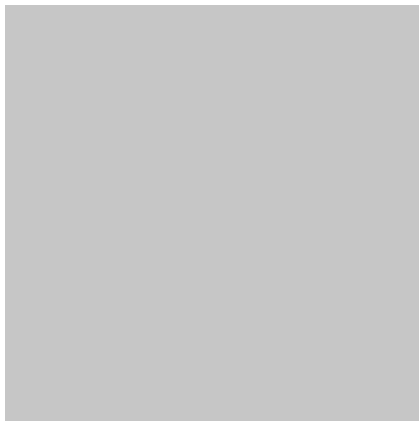
Create an experiment that shows one of the processes from the water cycle. Conduct your experiment for the class. You may research various experiments that you might adapt concerning the water cycle using the Internet.



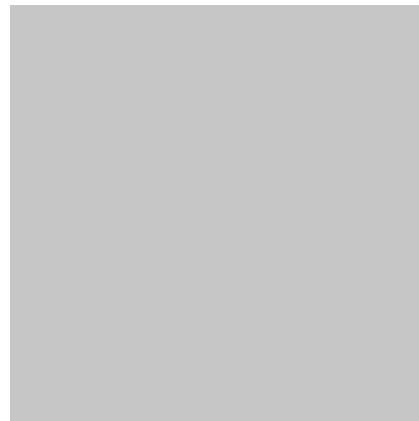


# Square Group Cards

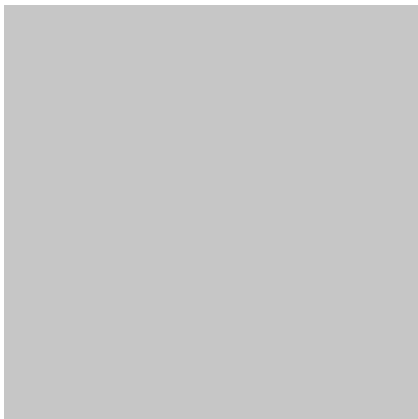
Pretend you are one of the parts of the water cycle, such as evaporation. Explain why you are important to the water cycle and what life would be like without you.



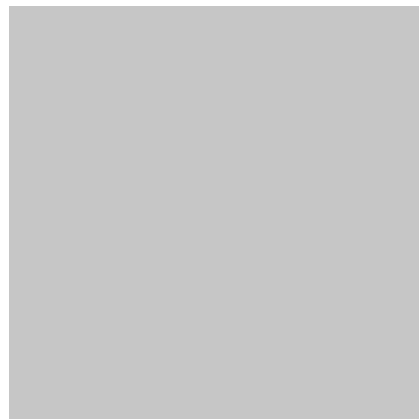
Create a conversation between condensation and evaporation, with each stating why one is more important than the other.



How is water made safe for us to drink? You are an environmentalist explaining the process that makes water safe in an article you have written.

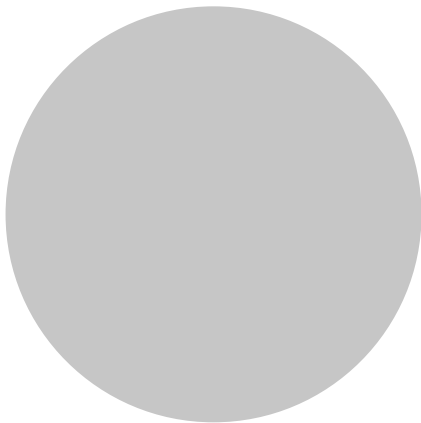


All of Earth's oceans have dried up. How is that going to affect the water cycle? Report this effect in an important news flash through a television broadcast.

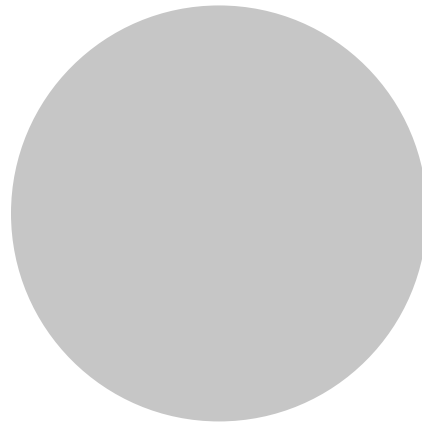


# Circle Group Cards

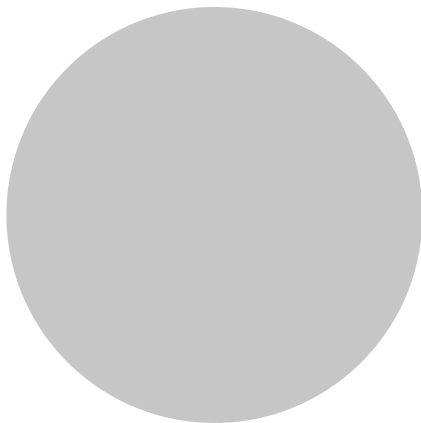
Find examples of condensation you may see in nature or in the classroom. List them or take pictures of them.



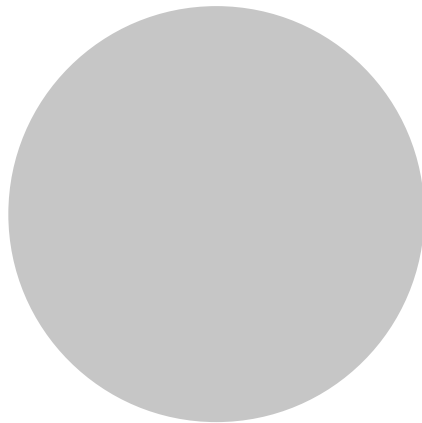
You are a drop of water. Show your life, from beginning to end, in a “baby book” format.



Create an obituary for a drop of water, explaining its life.



Create a set of flash cards concerning the water cycle and its effects.



# Star Group Cards

Create a poster that shows the water cycle and how it works. Label the parts.



You report the weather for a news station. Report why there has been a lot of precipitation the past few days. Make a weather board to show your news audience (your classmates).



Create a *PowerPoint* presentation that shows the water cycle. Why is it important to Earth's weather? Present it to the class.



Act out each part of the water cycle with three friends. Use simple props and costumes for your presentation.



Name \_\_\_\_\_

# Choices Board Assessment

**Directions:** You will have the opportunity to assess your own work. Answer the questions below by grading yourself on a scale of 1–5, with 5 being the best. Circle the number in each row to respond to the following statements.

	<b>Disagree</b>			<b>Agree</b>	
Your completed assignment is easy to understand.	1	2	3	4	5
Your completed assignment is easy to read.	1	2	3	4	5
Your completed assignment is creative.	1	2	3	4	5
Your completed assignment grabs the audience’s attention.	1	2	3	4	5
Your completed assignment has correct spelling.	1	2	3	4	5
Your completed assignment has correct punctuation.	1	2	3	4	5
Your completed assignment has correct grammar.	1	2	3	4	5
Your completed assignment answers questions about the water cycle.	1	2	3	4	5

## Comments

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Name \_\_\_\_\_

# Choices Board Template

**Directions:** Choose two activities from the choices below. Make sure your choices correspond with the symbol your teacher assigned to you.

