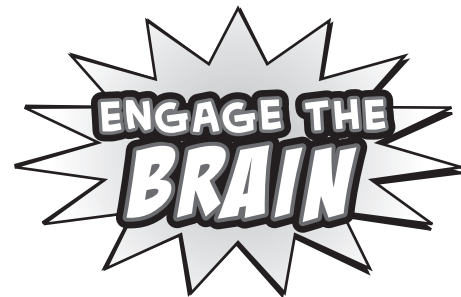


BOOK 3

GRAPHIC ORGANISERS **AND OTHER** **VISUAL STRATEGIES**



MARCIA L. TATE



GRAPHIC ORGANISERS

AND OTHER

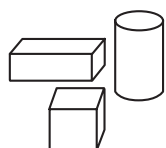
VISUAL STRATEGIES

BOOK 3



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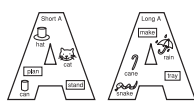
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Index of Activities

This chart shows the standards that are covered in each chapter.

MATHEMATICS	Standards are covered on pages
Numbers and Operations—Understand numbers, ways of representing numbers, relationships among numbers and number systems.	11, 14, 16
Numbers and Operations—Understand meanings of operations and how they relate to one another.	9
Numbers and Operations—Compute fluently and make reasonable estimates.	16
Geometry—Analyse characteristics and properties of two- and three-dimensional geometric shapes, and develop mathematical arguments about geometric relationships.	18
Measurement—Understand measurable attributes of objects and the units, systems and processes of measurement.	20
Data Analysis and Probability—Formulate questions that can be addressed with data, and collect, organise and display relevant data to answer them.	23
Data Analysis and Probability—Select and use appropriate statistical methods to analyse data.	23
Data Analysis and Probability—Understand and apply basic concepts of probability.	25
Problem Solving—Build new mathematical knowledge through problem solving.	18
Problem Solving—Solve problems that arise in mathematics and in other contexts.	11
Connections—Recognise and use connections among mathematical ideas.	9, 14

SCIENCE	Standards are covered on pages
Science as Inquiry—Ability to conduct scientific inquiry.	34
Physical Science—Understand properties of objects and materials.	33, 34, 36
Life Science—Understand characteristics of organisms.	31
Life Science—Understand life cycles of organisms.	29
Life Science—Understand organisms and environments.	27
Earth and Space Science—Understand properties of earth materials.	38
Earth and Space Science—Understand changes in the earth and sky.	40
Science in Personal and Social Perspectives—Identify types of resources.	42

SOCIAL STUDIES	Standards are covered on pages
Understand culture and cultural diversity.	44, 61
Understand the ways human beings view themselves in and over time.	56
Understand the interactions among people, places and environments.	53
Understand individual development and identity.	47, 56
Understand interactions among individuals, groups and institutions.	47, 49, 51
Understand how people organise for the production, distribution and consumption of goods and services.	58
Understand the ideals, principles and practices of citizenship in a democratic society.	61

ENGLISH	Standards are covered on pages
Read a wide range of print and nonprint texts to build an understanding of texts, of self and of the cultures of Australia and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfilment (includes fiction and nonfiction, classic and contemporary works).	67
Apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. Draw on prior experience, interactions with other readers and writers, knowledge of word meaning and of other texts, word identification strategies and understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).	63, 65, 76, 79
Adjust use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.	65, 67
Employ a wide range of strategies while writing, and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.	69, 71
Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.	69, 74, 77
Use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesise information and to create and communicate knowledge.	79

Introduction

An ancient Chinese proverb claims: “Tell me, I forget. Show me, I remember. Involve me, I understand.” This timeless saying insinuates what all educators should know: Unless students are involved and actively engaged in learning, true learning rarely occurs.

The latest brain research reveals that both the right and left hemispheres of the brain should be engaged in the learning process. This is important because the hemispheres talk to one another over the corpus callosum, the structure that connects them. No strategies are better designed for this purpose than graphic organisers and visuals. Both of these strategies engage students’ visual modality. More information goes into the brain visually than through any other modality. Therefore, it makes sense to take advantage of students’ visual strengths to reinforce and make sense of learning.

How to Use This Book

The activities in this book cover the content areas and are designed using strategies that actively engage the brain. They are presented in the way the brain learns best, to make sure students get the most out of each lesson: focus activity, modelling, guided practice, check for understanding, independent practice and closing. Go through each step to ensure that students will be fully engaged in the concept being taught and understand its purpose and meaning.

Each step-by-step activity provides one or more visual tools students can use to make important connections between related concepts, structure their thinking, organise ideas logically and reinforce learning. Graphic organisers and visuals include: place-value models, bar graph, network tree, concrete models, picture chart, idea web, Venn diagram, T-chart, newspapers, tally chart, collages, word cards, matrix, posters, circle chart and more!

Suggested Suitability of Activities by Year Level

Book One through to Book Six are suitable for Year Prep through to Year 6, as shown in the table below, but this may vary slightly in your classroom.

The Middle Years books in this series are suitable for Year 6 to Year 9.

BOOK	Year Level
1	Prep/1
2	1/2
3	2/3
4	3/4
5	4/5
6	5/6
Middle Years: English	6–9
Middle Years: Science	6–9
Middle Years: Maths	6–9

Comparing Rocks: Venn Diagram

Materials

Comparing Rocks activity

2 large, dissimilar rocks

rock samples

magnifying glasses

tubs of water (optional)

Skills Objectives

Recognise the characteristics of rocks.

Identify similarities and differences.

Rocks have distinguishing characteristics, such as colour, texture and lustre. In this activity, students study rocks and note their observations on a **Venn Diagram**. This graphic organiser allows students to organise different and shared traits.

1. Hold up two large rocks. Ask students to describe how they are alike and different.
2. Draw two large, overlapping circles on the board to make a Venn diagram. Label the left circle *Rock 1* and the right circle *Rock 2*. Ask students to call out words or phrases describing the two rocks. Write their responses in the diagram—differences in the outer parts of the circles and similarities in the overlapping part.
3. Point out that rocks have many characteristics, and list them on the board: *colour, shape, texture, design* (such as stripes or speckles) and *lustre* (how dull or shiny a rock is). Tell the class that scientists use these characteristics to classify or identify different kinds of rocks.
4. Give each student a magnifying glass and a copy of the **Comparing Rocks activity (page 39)**. Then let him or her choose two rocks to compare. Students will examine the rocks to look for characteristics listed on the board. If you wish, provide tubs of water so students can wet the rocks to see the colours better or put their rocks in the tubs to see if they float.

5. Have students write their observations on their Venn diagrams, and then share their work with a classmate.

Extended Learning

Invite students to take turns sharing the information on their Venn diagrams while the rest of the class guesses which two rocks were compared.

Comparing Rocks

Directions: Compare two rocks. In the outer circles, write how the rocks are different. In the overlapping part, write how the rocks are alike.

Rock 1 Both Rock 2

green
pink
has stripes
sharp edges
shaped like a rectangle

grey
white
not shiny
does not float

black
brown
has speckles
bumpy
round shape
no sharp edges

Name _____

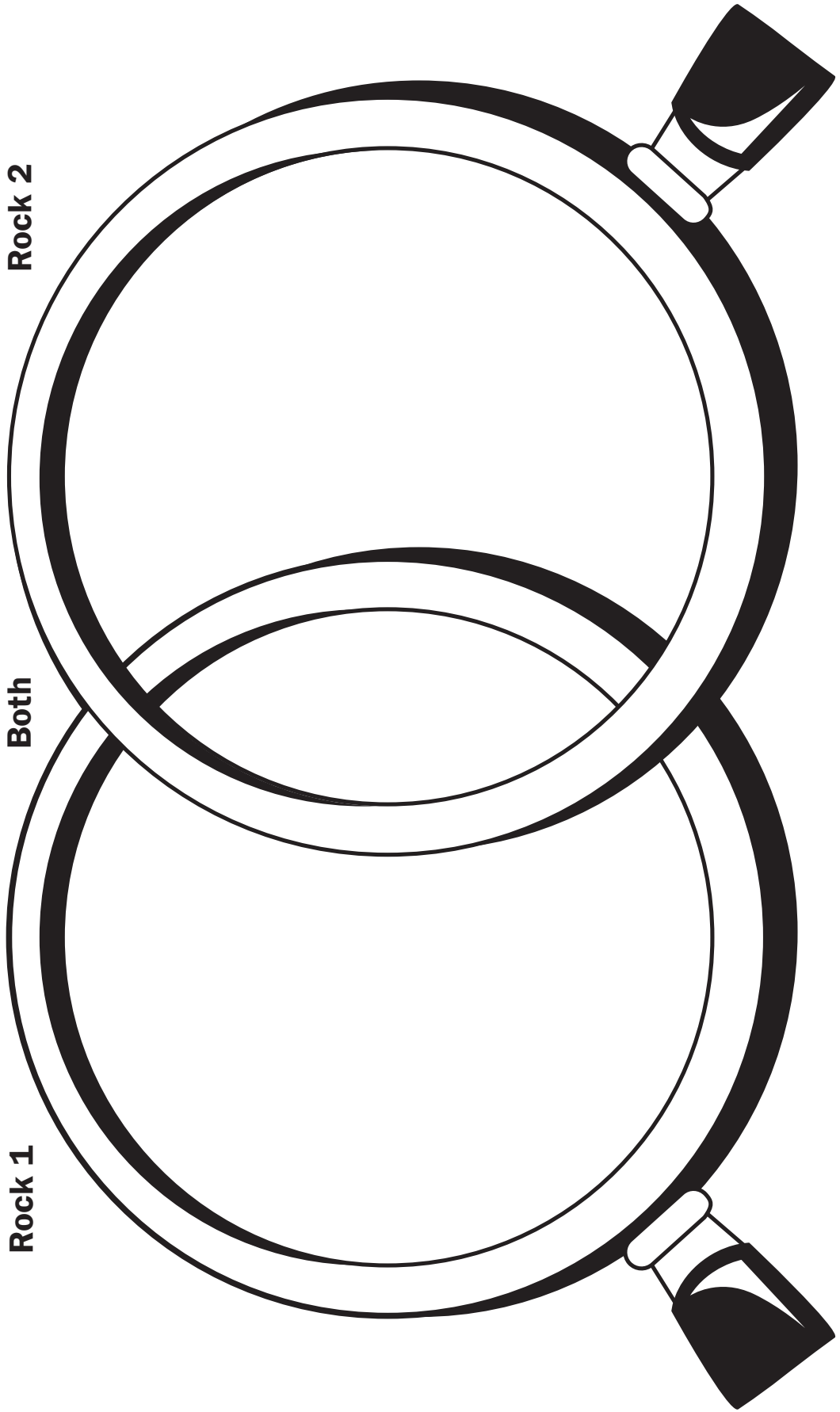
Date _____

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Comparing Rocks

Directions: Compare two rocks. In the outer circles, write how the rocks are different. In the overlapping part, write how the rocks are alike.



Filmstrip Timeline

Materials

Filmstrip Timeline activity

children's resources about famous people (biographies, encyclopedias)

Skills Objectives

Research information about a person.

Identify main events in a person's life and put them in sequential order.

A **Timeline** presents events in chronological order on a linear model so the sequence of events is clear. Identifying main events and sequential order are important skills. In this activity, students research famous people and present facts about their lives on a timeline.

Part 1

1. Show students biographies and encyclopedia articles that tell about interesting and important people. Help students see that biographies are often written in "time order", or chronologically.
2. Tell students they will be researching and writing about famous people. Provide books and other resources. Let students look through the materials and choose a person to research.

Part 2

1. As students research, have them list important dates and events from their person's life. Remind them to choose events that will help others understand who that person is and why he or she is important. Make sure students select appropriate events.

2. Have students circle the four most important events on their list. Then give them a copy of the **Filmstrip Timeline activity (page 57)**. Tell students to write the name of their person at the top and list the dates of four events in order. Finally, have them briefly describe and illustrate the events.

3. Invite students to present their timelines to the class.

Name _____ Date _____

Filmstrip Timeline

Directions: Write the person's name. Choose four events from his or her life. Then describe each event and draw a picture.

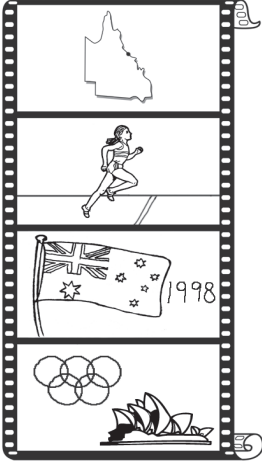
Life of: Cathy Freeman

Year: 1973
Event: She was born in Mackay, Queensland.

Year: 1994
Event: She won the 400 metre sprint at the Commonwealth Games.

Year: 1998
Event: She was named 'Australian of the Year'.

Year: 2000
Event: She won a gold medal at the Sydney Olympics.



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Name _____

Date _____

Filmstrip Timeline

Directions: Write the person's name. Choose four events from his or her life. Then describe each event and draw a picture.

Life of: _____

Year: _____

Event: _____

Year: _____

Event: _____

Year: _____

Event: _____

Year: _____

Event: _____

