



LEARNING SCIENCES
INTERNATIONAL

Study Guide

Examining Similarities & Differences

Classroom Techniques to Help Students Deepen Their Understanding

Examining Similarities & Differences

After reading pages 5–14, which preview the rest of the guide, process your understanding. Further discuss any areas of confusion or interest with your book study group.

The Effective Implementation of Examining Similarities and Differences

List and explain the six steps of effective implementation of examining similarities and differences.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Monitoring for the Desired Result

The text lists seven examples of ways that a teacher can monitor whether students are successfully examining similarities and differences. List each example in the appropriate box below.

Examples I have Used	Examples That Are New to Me

Examining Similarities & Differences

After reading pages 5–14, which preview the rest of the guide, process your understanding. Further discuss any areas of confusion or interest with your book study group.

Scaffolding and Extending Instruction to Meet Students' Needs

There are four categories of support you can provide students who need scaffolding. Choose one of the four and explain why you believe it could serve as a useful scaffold.

Which category of support did you choose?

Why do you believe it could serve as a useful scaffold?

Instructional Techniques to Help Students Identify Similarities and Differences

This guide presents six techniques to help your students effectively identify similarities and differences. Each of the techniques is similarly organized. Choose one technique in which you are most interested, and share what you hope to learn or improve from it.

Which technique did you choose?

What do you hope to learn or improve?

Comparing Using Sentence Stems, Summarizers, and Constructed Responses

How to Effectively Implement Sentence Stems, Summarizers, and Constructed Responses

Record your understanding by comparing and contrasting sentence stems, summarizers, and constructed responses in the chart below.

Sentence Stems	Summarizers	Constructed Responses

Determining if Students Can Make a Comparison Between Two Things

Which of the monitoring techniques discussed have you used in your classroom?

Which of the monitoring techniques will you most likely put into place having read the suggestions?

Comparing Using Sentence Stems, Summarizers, and Constructed Responses

After reading pages 15–28, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard you have chosen, and considering the age and needs of your students, create a comparison chart using either sentence stems, summarizers, or constructed responses.

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What adaptations will you make in order to scaffold and extend for those students who need it?

Scaffold	Extend

Comparing Using Graphic Organizers

How to Effectively Implement Comparing Using Graphic Organizers

List the four mental substeps in the overall cognitive process of making comparisons.

1. _____
2. _____
3. _____
4. _____

Record your understanding by describing, in your own words, the four graphic organizers used to compare two or more things.

Graphic Organizers	Description
Venn Diagram	
Double-Bubble Diagram	
Comparison Matrix	
Modified T-Chart	

Determining if Students Can Compare Using Graphic Organizers

Of the four suggestions for monitoring listed in the text, which are you most likely to use in your classroom, and why?

Comparing Using Graphic Organizers

After reading pages 29–42, choose one standard from your subject area and/or grade level with which to work. Record that standard on the lines below. You may choose to work with the same standard as in the last section or select a new standard.

Using the standard above, plan an activity that utilizes one of the graphic organizers discussed in this chapter, and model a completed example in the space below.

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Describe one way in which you might scaffold and one way in which you might extend the lesson.

Scaffold	Extend

Classifying Using Sorting, Matching, and Categorizing

How to Effectively Implement Classifying Using Sorting, Matching, and Classifying.

Record your understanding of the three classification types, by explaining each in your own words.

Sorting	
Matching	
Categorizing	

Look at the list of common mistakes on page 47, and identify one that you have been guilty of in the past.

Determining if Students Can Identify Similarities and Differences in Critical Content Using Classifying

Provide three examples of monitoring techniques that apply to identifying similarities and differences through classification.

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Classifying Using Sorting, Matching, and Categorizing

After reading pages 43–54, choose one standard from your subject area and/or grade level with which to work. Record that standard on the lines below. You may choose to work with the same standard as in the last section or select a new standard.

Using the standard above and a corresponding text or concept, design an activity that utilizes one of the classification strategies discussed in this chapter, and model and example for your students below.

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Describe one specific monitoring technique you would use, as well as one scaffolding technique and one extending technique.

Monitoring Technique

Scaffolding	Extending
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Classifying Using Graphic Organizers

How to Effectively Implement Classifying Using Graphic Organizers

Fill in the blanks.

Classifying is the process of _____ things that are alike into _____ based on their _____.

Record your understanding of the three types of graphic organizers useful to classification tasks in the chart below.

Classification Charts	Affinity Diagrams	Dichotomous Flowcharts

Determining if Students Can Classify Using Graphic Organizers

Which of the monitoring techniques discussed have you used in your classroom?

Which of the monitoring techniques will you most likely put into place having read the suggestions?

Classifying Using Graphic Organizers

After reading pages 55–66, choose one standard from your subject area and/or grade level with which to work. Record that standard on the lines below. You may choose to work with the same standard as in the last section or select a new standard.

Using the standard you have chosen and a corresponding text or concept, plan a lesson that involves classifying. In the space below, create an example for your students of one of the graphic organizers discussed in this chapter.

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Using the example from the text, the standard you have chosen, and the lesson you have planned above, describe one way you might scaffold and one way you might extend the lesson.

Scaffold	Extend

Comparing by Creating Metaphors and Similes

How to Effectively Implement Metaphors and Similes

Record your understanding by listing and explaining, in your own words, the five important aspects of effectively implementing metaphors and similes.

Determining if Students Can Create Metaphors and Similes to Examine Similarities and Differences

Provide two example of monitoring techniques that apply to creating metaphors and similes.

1.
2.

Comparing by Creating Metaphors and Similes

After reading pages 67–79, choose one standard from your subject area and/or grade level with which to work. Record that standard on the lines below. You may choose to work with the same standard as in the last section or select a new standard.

Using the standard above and choosing a corresponding text or concept, plan a lesson that involves creating metaphors and similes. Refer to the tables on pages 69–70 for guidance.

Using the examples from the text and the standard you have chosen, describe how you will determine if students can examine similarities and differences using metaphors and similes.

What will the students do?	What will the teacher do?
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Using the examples from the text and the standard you have chosen, describe one way in which you might scaffold and one way in which you might extend the lesson.

Scaffold	Extend
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Comparing by Creating Analogies

How to Effectively Implement Analogies

What are the two aspects of effective implementation of creating analogies?

1. _____

2. _____

List and describe the four formats for creating analogies.

Determining if Students Can Create Analogies to Examine Similarities and Differences

Which of the monitoring techniques discussed have you used in your classroom?

Which of the monitoring techniques will you most likely put into place having read the suggestions?

Comparing by Creating Analogies

After reading pages 81–92, choose one standard from your subject area and/or grade level with which to work. Record that standard on the lines below. You may choose to work with the same standard as in the last section or select a new standard.

Using the standard above and a corresponding text or concept, model relevant examples for all four types of analogies. Refer to Figure 6.1 on page 83 for guidance.

Cloze Format	
Aristotelian Format	
Visual Format	
Graphic Organizer	

Based on the standard you have chosen, as well as the items in the template above, record one monitoring technique you would use and specifically how you would use it.

Using the standard you have chosen, and the lesson you have planned above, describe one way in which you might scaffold and one way in which you might extend the lesson.

Scaffold	Extend
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Examining Similarities & Differences

Key Terms and Ideas for Implementation of Instructional Techniques

Use the space below to record key terms and ideas that are essential for the implementation of each instructional technique.

Instructional Technique 1: Comparing Using Sentence Stems, Summarizers, and Constructed Responses
Instructional Technique 2: Comparing Using Graphic Organizers
Instructional Technique 3: Classifying Using Sorting, Matching, and Categorizing
Instructional Technique 4: Classifying Using Graphic Organizers
Instructional Technique 5: Comparing Using Metaphors and Similes
Instructional Technique 6: Comparing by Creating Analogies

For additional reflection questions and organizer templates, refer to pages 94–104 in the text.