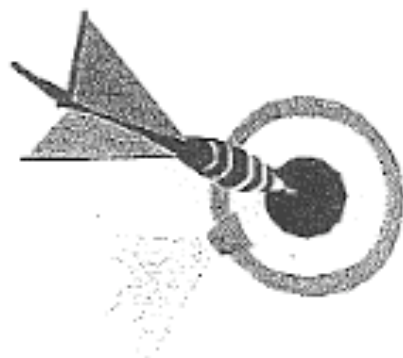


Instructional Strategies That Work: A Tool Kit for Educators

1: FINDING SIMILARITIES AND DIFFERENCES



Based on the research and materials of
Dr. Robert Marzano and Dr. Debra Pickering
of the Mid-continent Research for Education and Learning (McREL) Institute



Compiled, edited and expanded by Cherry Creek Schools'
Instructional Strategies Study Team
(Leigh Abbott, Mary Dove, Roberta Ford, Marla Fosold, and Frances Woolery-Jones)

May 2001

IDENTIFYING SIMILARITIES AND DIFFERENCES

Let's Celebrate! The field of education is at a turning point; the "art" of teaching is rapidly becoming the "science" of teaching. This is a relatively new phenomenon as reported by Robert Marzano and Debra Pickering in the ASCD publication, *Classroom Instruction that Works: Research-Based Strategies for Increasing Student Achievement*.

After examining decades of research findings to distill the results, Marzano's team at McREL has defined nine broad K-12 teaching strategies that have positive effects on student learning:

- Identifying similarities and differences
- Summarizing and note taking
- Reinforcing effort and providing recognition
- Homework and practice
- Nonlinguistic representations
- Cooperative learning
- Setting objectives and providing feedback
- Generating and testing hypotheses
- Questions, cues, and advance organizers

The instructional strategy of identifying similarities and differences has proven in the research to show the highest gains in student achievement when implemented effectively. Generalizations from the research about strategies for identifying similarities and differences include:

- Presenting students with explicit guidance in identifying similarities and difference enhances students' understanding of and ability to use knowledge.
- Asking students to independently identify similarities and differences enhances students' understanding of and ability to use knowledge.
- Representing similarities and differences in graphic or symbolic form enhances student' understanding of and ability to use knowledge.
- Identification of similarities and differences can be accomplished in a variety of ways; The identification of similarities and differences is a highly robust activity.

The intent of the **similarities and differences** packet is to give teachers easy access to classroom strategies and models that can be easily adapted into lessons at all grade levels and in all content areas.

The packet includes:

- Definitions of the terminology: comparing, classifying, creating metaphors, creating analogies
- Steps to the thinking processes
- Key points to consider when teaching the processes
- Models of graphic organizers
- Teachers structured and student structured tasks
- Bibliography

Meta-Analysis of Research On Instruction

	ES	P Gain	N	SD
Identifying similarities and differences	1.61	45	31	.31
Summarising, note taking	1.00	34	179	.50
Reinforcing effort and providing recognition	.80	29	21	.35
Assigning homework and practice	.77	28	134	.36
Generating non-linguistic representations	.75	27	246	.40
Using cooperative learning	.73	27	122	.40
Setting objectives and providing feedback	.61	23	408	.28
Generating and testing hypotheses	.61	25	63	.79
Providing cues, questions, and advanced Organizers	.59	22	1,251	.26

ES = average effect size.

P Gain = percentile gain (the maximum percentile gains possible for students currently at the 50th percentile).

N = number of effect sizes.

SD = standard deviation (the measure of the variability of scores around the mean).

When conducting a meta-analysis, a researcher translates the results of a given study into a unit of measurement referred to as an effect size. An effect size expresses in standard deviations the difference between the increased or decreased achievement of the experimental group with that of the control group. One of the more useful aspects of an effect size is that it can be easily translated into percentile gains. Being able to translate effect sizes into percentile gains can lead to dramatic interpretations of the possible benefits of a given instructional strategy.

Robert Marzano

from *What Works In Classroom Instruction*, McRel, 2000

Steps to Highly Effective Lesson Planning



Identify the Standard being addressed.



Specify the Knowledge: What do you want students to know/ understand/ demonstrate/ or master?



Determine which of the nine instructional strategies will be most effective to help students achieve the desired result.

- Identifying similarities and differences:
 - Comparing and Contrasting
 - Classifying
 - Creating Metaphors
 - Creating Analogies
- Summarizing, note taking
- Reinforcing effort and providing recognition
- Assigning homework and practice
- Generating non-linguistic representations
- Using cooperative learning
- Setting objectives and providing feedback
- Generating and testing hypotheses
- Providing cues, questions, and advanced organizers



Design or use an existing rubric (see attached samples) to assess mastery.

COMPARING

I. Define Term

Comparing is the process of identifying and articulating similarities and differences among items. Stated more simply, it is the process of describing how things are the same and different.

II. Give Steps

1. Select the items you want to compare.
2. Select the characteristics of the items on which you want to base your comparison.
3. Explain how the Items are similar and different with respect to the characteristics you selected.
4. What did you learn?

The process might be stated in simpler terms for young students:

1. What do I want to compare?
2. What is it about them that I want to compare?
3. How are they the same? How are they different?
4. What did you learn?

III. Demonstrate Model.

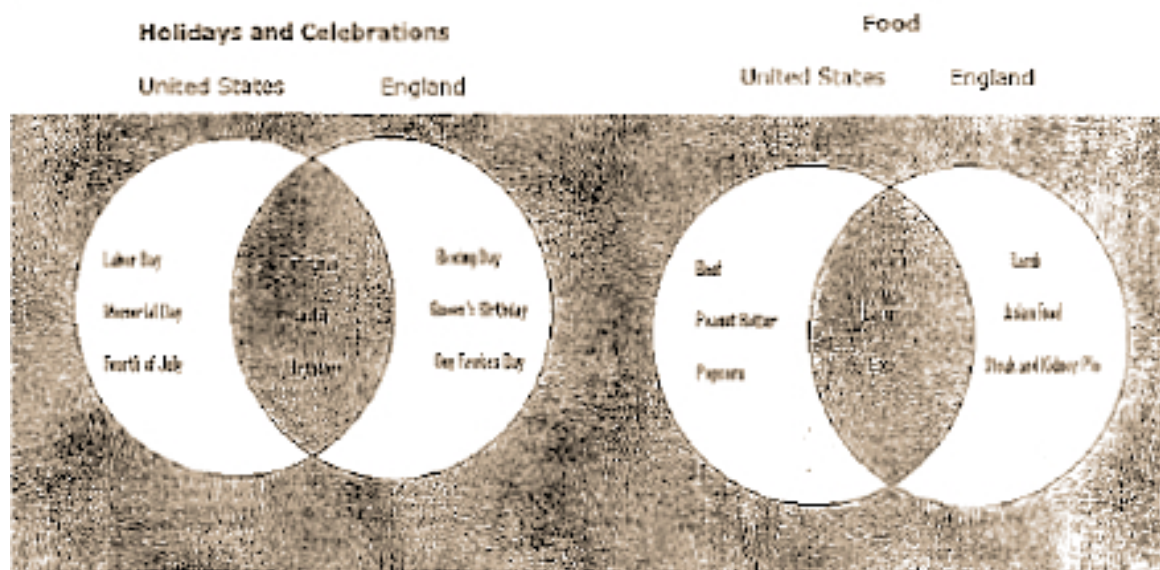
Use high interest topic to model the steps for the process.

Sample Graphic Organizers

1. Comparison Matrix

	Items to be compared			
	#1 <i>Belle in "Beauty and The Beast"</i>	#2 <i>Jasmine in "Aladdin"</i>	#3 <i>Ariel in "Little Mermaid"</i>	
1. <i>Family background</i>	<ul style="list-style-type: none"> • poor • daughter of poor inventor • no mother in story 	<ul style="list-style-type: none"> • rich • daughter of ruler • no mother in story 	<ul style="list-style-type: none"> • rich • daughter of king • no mother in story 	Similarities
				Differences
2. <i>Personality traits</i>	<ul style="list-style-type: none"> • likes to read & stay home • strong opinions • obeys father 	<ul style="list-style-type: none"> • likes to go on adventures • strong opinions • disobeys father 	<ul style="list-style-type: none"> • likes to go on adventures • strong opinions • disobeys father 	Similarities
				Differences
3. <i>How they ended up</i>	<ul style="list-style-type: none"> • she marries the prince • father lives with her in the castle 	<ul style="list-style-type: none"> • she marries Aladdin – a prince • lives in palace with father 	<ul style="list-style-type: none"> • she marries the prince • leaves father to go live with prince 	Similarities
				Differences
4. <i>Her enemy</i>	<ul style="list-style-type: none"> • Aaron – man who wanted to marry her • Prince saves her 	<ul style="list-style-type: none"> • evil sorcerer – man who wanted to marry her • Aladdin saves her 	<ul style="list-style-type: none"> • sea witch – woman who wanted to destroy her father • Prince saves her 	Similarities
				Differences

2. Venn Diagram



IV. Discuss key points.

Focus on critical steps and difficult aspects of the process.

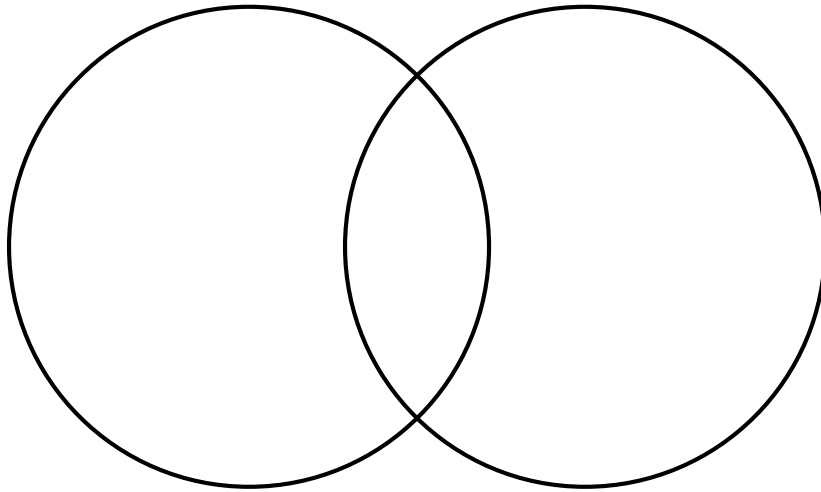
1. Why are students doing this comparison? Are the items that they are comparing important to this content knowledge? Is comparing the best process to use to help students extend and refine this knowledge?
2. One key to a rigorous comparison is to identify characteristics that are meaningful and interesting. For students to become skilled at identifying meaningful and interesting characteristics, they may need extensive modeling and feedback as they practice. You can provide this support in different ways:
 - Brainstorm ideas for characteristics as a class
 - Use expanded comparison
3. Make sure that students understand that the purpose of doing a comparison task in the classroom is to extend and refine knowledge. .

V. Provide students with blank graphic organizers or representations to help them understand and use the process of comparing.

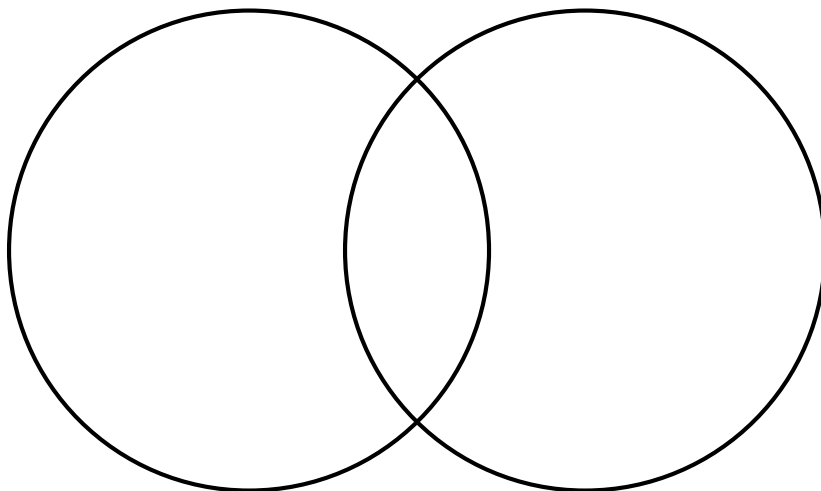
ITEMS TO BE COMPARED

ITEM 1: _____ **ITEM 2:** _____

Characteristic 1: _____



Characteristic 2: _____





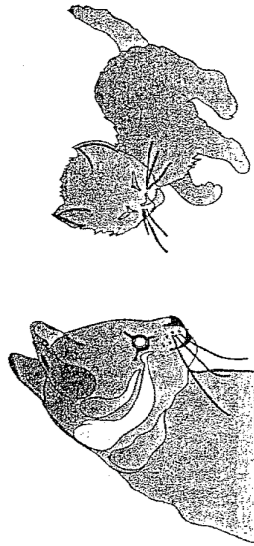
TASK - Comparing

Creatures Great and Small

Content Area: Science

Knowledge: Understands that different types of animals grow and develop in different ways

As we have studied how animals grow, you have learned that certain things about them stay the same and other things change. You also have learned that some animals just get bigger as they grow; other animals change a little; and others change a lot. For example, as a kitten grows into a cat, it doesn't change much, except in size.

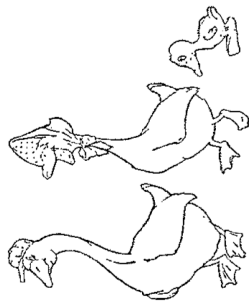


	Kitten	Cat	How are they the same? How are they different?
Size	very small	much larger	The cat just looks like a bigger kitten.
Color	tan	tan	The color is about the same.
Skin/ Covering	very soft	soft and long	The fur is very soft on both a kitten and a cat.
Body shape	long, with a round head and tail	long, with a round head and long tail	The body shape is about the same, but the cat's tail seems a little longer when I compare it to its body than a kitten's does.

	Kitten	Cat	How are they the same? How are they different?
Size	very small	much larger	The cat just looks like a bigger kitten.
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Body shape	long, with a round head and tail	long, with a round head and long tail	The body shape is about the same, but the cat's tail seems a little longer when I compare it to its body than a kitten's does.

Now it's your turn. Follow the directions on the next page.

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Compare a baby (or young) animal with an adult animal. Choose one pair of animals from each of the lists below. Compare the baby and adult animals in terms of their size, color, skin, and body shape. You may use books or videotapes in the classroom or library to find pictures of these animals. You also may simply use your own experience. Think about how the animal stays the same and how it changes as it grows.

- | | |
|--|---|
| <ul style="list-style-type: none">• Tadpole and frog• Calf and whale• Caterpillar and butterfly• Maggot and fly | <ul style="list-style-type: none">• Colt and horse• Puppy and dog• Gosling and goose• Lamb and sheep |
|--|---|

	Baby or young	Adult	How are they the same? How are they different?
Size			
Color			
Skin/ Covering			
Body shape			

	Baby or young	Adult	How are they the same? How are they different?
Size			
Color			
Skin/ Covering			
Body shape			



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TASK - Comparing

Stars or Starfish?

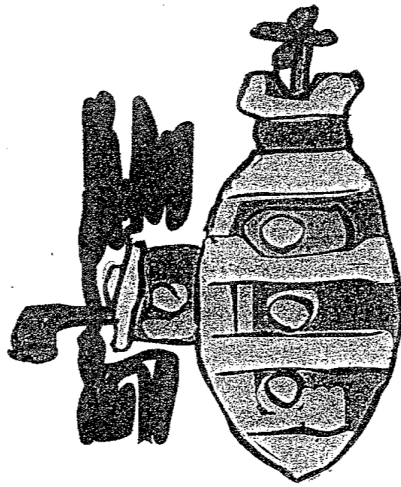
Content Area: Science

Knowledge: Understands the composition and structure of the Earth's atmosphere (e.g., temperature and pressure in different layers of the atmosphere, circulation of air masses)

During our next unit, we will be learning about the mysterious ocean deep. As we begin to understand the environment in the ocean, I'd like you to engage in an ongoing comparison. Using knowledge you acquired during our previous unit on the Earth's atmosphere, identify the similarities and differences between what it would be like to go deeper and deeper into the ocean and what it would be like to go higher and higher to the top of a major mountain peak. Use characteristics for your comparison that highlight sights and sounds that you would experience but also be sure to demonstrate your understanding of the composition and structure of the Earth's atmosphere.

(At the end of the unit)

In this unit, we have learned much about the environment in the ocean—the ocean currents, different temperatures and pressure that can be found, etc. Think about what you have learned as you compared the environment beneath the water's surface with that found in the Earth's atmosphere. If you could take only one trip—either to the depths of the ocean or to the top of Mount Everest, which would you choose? Use what you learned in your comparison to explain which trip you would most like to take and why.



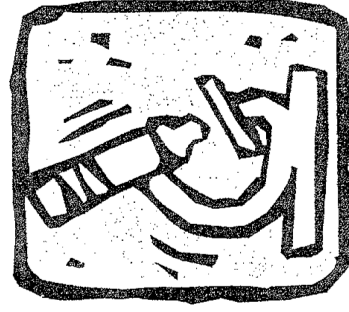
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TASK - Comparing

Disease or Dis-ease

Content Area: Health

Knowledge: Understands the social, economic, and political effects of disease on individuals, families, and communities

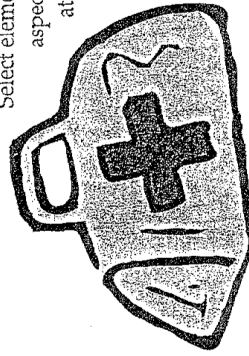


We have been learning about the effects of disease on individuals, families, and communities. Specifically, we have examined the effects of polio in the mid-20th century. You are now going to apply what you have learned to other situations in which people were influenced by disease. You are going to compare what you have learned about Franklin D. Roosevelt with the experiences of Typhoid Mary, a cook who infected 22 or more New York residents between 1900 and 1907, and Ryan White, a child who contracted the HIV virus in the 1980s. (Information about

these three situations will be available to you in the classroom.)

Select elements of the disease (e.g., symptoms and treatments),

aspects of the affected communities (e.g., the public's attitude toward the disease), and characteristics having to do with how well the individuals reacted to having the disease (e.g., how well they accepted it, whether they sought treatment, and whether they told others).



Use a blank comparison matrix to do this task. After you have filled it in, consider the patterns of similarities and differences. Then draw your own conclusions about the factors that influence how disease impacts individuals, families, and communities.

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ACTIVITY WORKSHEET - Comparing

On What Will I Base My Comparison?

Comparing is the process of describing how things are the same and different. When we compare things, we sometimes see things differently or learn something new.

Directions

Practice helps us to use the process of comparing more easily. Below are pairs of things, experiences, or animals. Pick one of the pairs, and practice the process of comparing using the steps of the process.

As you compare these items, pay close attention to step 2 of the process. Try to think of specific things about them that you might compare. For example, if I am comparing an apple and an orange, I might decide to compare their size, shape, color, and how they feel. As I compare them, I might think about the two items this way:



"An apple and an orange are the same because they are about the same size and shape, but they are different because an orange is orange in color and an apple usually is either red or green. Also, they are different because the apple is smooth on the outside, but the orange is rough."



Pick one of the pairs below and compare the items:

- A jungle and a forest
- A river and a road
- A painting of a mountain and a picture of a mountain
- A cat and a dog
- A carrot and a potato

You may use a blank Venn diagram or comparison matrix to compare the items you have chosen.

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ACTIVITY WORKSHEET - Comparing



ACTIVITY WORKSHEET - Comparing

Practicing the Steps

Comparing is the process of describing how things are the same and different. When we compare things, we sometimes see things differently or learn something new.

Directions

Practice helps us to use the process of comparing. Below are pairs of things, experiences, books, or animals. Pick one of the pairs, and practice the process of comparing using each step of the process.

When you get to Step 2, you will notice that a few suggestions have been offered under the heading "Things about them that you might compare." You may use these suggestions, but try to add your own ideas, too.

- A car and a train

Things about them that you might compare:

Size, number of people it can carry, where it can travel

- An elephant and a giraffe

Things about them that you might compare:

Where they live, their size, what they eat, their color

- *The Three Billy Goats Gruff* and *The Three Little Pigs*

Things about them that you might compare:

The characters, where they lived, how the story ended



- Soccer and football

Things about them that you might compare:

Where the game is played, what the players wear, what equipment is used

You may use a blank Venn diagram or comparison matrix to compare the items you have chosen.

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Practicing the Steps

Comparing is the process of identifying and articulating similarities and differences among items. When we compare things, we sometimes see things differently, gain new insights, or change perspectives.

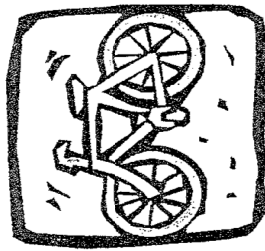


Directions

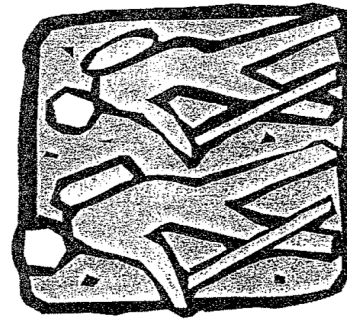
Practice helps us to use the process of comparing more effectively. Below are a series of things, experiences, or places.

Pick one of these series, and practice the process of comparing using the steps of the process.

- The United States, Canada, and Great Britain
- Trains, planes, and automobiles
- Hiking, biking, and skiing
- Watching television, going to a movie, attending a concert



You may use a blank Venn diagram or comparison matrix to compare the items you have chosen.



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Name _____
Date _____

Comparison Matrix

Characteristics	Items to be compared			
	#1	#2	#3	
1.				Similarities
				Differences
2.				Similarities
				Differences
3.				Similarities
				Differences
4.				Similarities
				Differences

Rubric: Reasoning Strategy for a Comparison Task

Student Name _____

Incomplete	Pre basic	Basic	Proficient	Advanced
a) Selects appropriate items to compare.				
Fails to select any or all items needed to the make basic comparisons.	Selects items that are inappropriate to the basic objective of the comparison.	Selects items that satisfy the basic requirements of the comparison, but creates some difficulties for completing the task.	Selects items that provide a means for successfully addressing the basic objective of the comparison.	Selects items that are extremely suitable for addressing the basic objective of the comparison and show original or creative thinking.
0	1	2	3	4
b) Selects appropriate characteristics on which to base the comparison.				
Fails to select any or all characteristics needed to make even a basic comparison between the items selected.	Selects characteristics that are trivial or do not address the basic objectives of the comparison. Selects characteristics on which the items cannot be compared.	Selects characteristics that provide for a partial comparison of the objectives of the items and may include some extraneous characteristics.	Selects characteristics that provide a vehicle for meaningful comparison of the items and address the basic objective of the comparison.	Selects characteristics that encompass the most essential aspects of the items and present a unique challenge or provide unusual insight.
0	1	2	3	4
c) Accurately identifies the similarities and differences among the items, using identified characteristics.				
Fails to make a minimum number of similarities and differences among items selected.	Makes many significant errors in identifying the major similarities and differences among the identified characteristics.	Makes some important errors in identifying the major similarities and differences among the identified characteristics.	Accurately assesses the major similarities and differences among the identified characteristics.	Accurately assesses all identified similarities and differences for each item on the selected characteristics. Additionally, the student provides inferences from the comparison that were not expressly requested.
0	1	2	3	4

CLASSIFYING

I. Define Term

Classifying is the process of grouping things into definable categories on the basis of their attributes. Stated more simply: it is the process of grouping things that are alike into categories.

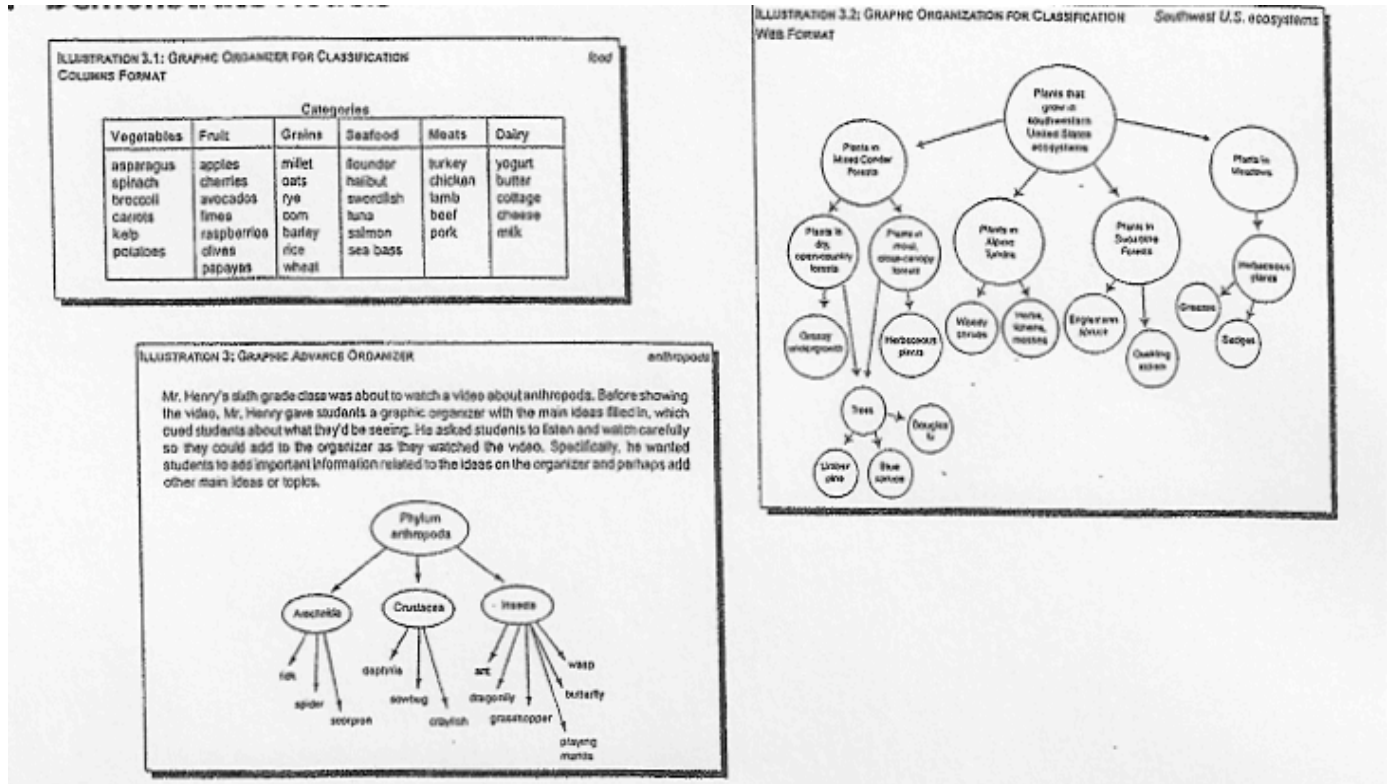
II. Give Steps

1. Identify the items you want to classify.
2. Select what seems to be an important item, describe its key attributes, and identify other items that have the same attributes.
3. Create the category by specifying the attribute(s) that the item must have for membership in the category.
4. Select another item, describe its key attributes, and identify with other items that have the same attributes.
5. Create the second category by specifying the attribute(s) that the item must have for membership in the category.
6. Repeat the previous two steps until all items are classified and the specific attributes have been identified for membership in each category.
7. If necessary, combine categories or split into smaller categories and specify the attribute(s) that determine membership in the category.

The process might be stated in simpler terms for young students:

1. What do I want to classify?
2. What things are alike and could be put into groups?
3. How are these things alike?
4. What other groups can I make and how are the things alike in each group?
5. Does everything now fit into a group?
6. Would it be better to split up any of the groups or put any groups together?

III. Demonstrate Models

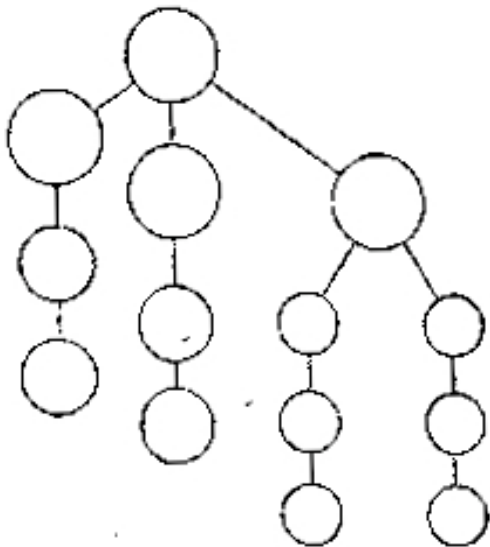


IV. Discuss Key Points

1. It is important that the second attribute which is generated, and each subsequent attribute, be related to the first. Switching to a totally unrelated attribute will create confusion and decrease the likelihood that students will learn about the item or its attributes.
2. It is important for students to focus on attributes that are important and meaningful. The selected attribute should cause the student to discover something in the items or to make connections among items that they had not previously made. If the attributes are not interesting or important, the student might accurately place items into groups but without any apparent positive effect on learning.
3. It is important that students understand the defining characteristic of the categories well enough to justify placement of the items. Explaining the reasons for the placement of items might be the most challenging part of the process. It is important to ask students for an explanation.
4. Having students classify and then reclassify is often a key to helping them notice unique distinctions among items that they could miss if they classify items only once. It might help students if the teacher provides different contexts for different classifications; for example, one might ask students to classify a list of plants as if they were gardeners, then reclassify them as if they were doctors who treat people with allergies.

V. Provide Graphic Organizers

Categories				



Name _____

Date _____

Categories

Rubric: Reasoning Strategy for a Classification Task

Student Name _____

Incomplete		Pre basic	Basic	Proficient	Advanced
a) Selects significant items to classify.					
Fails to identify a minimum number of items for classification.	Selects trivial items or items that have no relationship to the task.	Selects items of little significance or present a routine sorting problem.	Selects significant items for classification that present some challenge in classification.	Specifies the items to classified and selects significant items that present some interesting challenge in classification.	
0	1	2	3	4	
b) Specifies useful categories for the items.					
Fails to select a minimum number of categories on which to classify the items selected.	Creates categories that address only trivial aspects of the items.	Creates categories that provide for some analysis of the items but may not include all important characteristics or the items.	Creates categories that focus on the significant characteristics of the items.	Creates categories that provide a useful way of looking at the items at an unusual level of depth.	
0	1	2	3	4	
c) Specifies accurate and comprehensive rules for category membership.					
Fails to include characteristics which explain the items membership in a specific category.	Identifies characteristics that do not accurately describe the categories.	Describes the defining characteristics of the categories in a way that results in some overlap or confusion between categories, or, describes characteristics that are unrelated to the rules for category membership.	Clearly specifies the major similarities among the identified characteristics.	Provides a clear and all identified similarities and differences for each item on the selected characteristics.	
0	1	2	3	4	

Rubric: Reasoning Strategy for a Classification Task (cont.)

Incomplete	Pre basic	Basic	Proficient	Advanced
c) Accurately sorts the identified items into the categories.				
<p>Fails to identify a minimum number of items for classification,</p> <p>0</p>	<p>Selects trivial items or items that have no relationship to the task.</p> <p>1</p>	<p>Selects items of little significance or present a routine sorting problem.</p> <p>2</p>	<p>Selects significant items for classification that present some challenge in classification.</p> <p>3</p>	<p>Specifies the items to classified and selects significant items that present some interesting challenge in classification.</p> <p>4</p>

Comments:

ANALOGIES

I. Define Term (Wait to define this term until later on as directed.)

Only for the teacher's information at this point: An analogy is an identified relationship between pairs of concepts. Analogies help us see how seemingly dissimilar things are similar. Example: bulb: lamp :: flame : candle. They also can help students make a better connection between what they are learning and what they already know. Example: periods : sentences :: red lights: traffic.

II. Give Steps:

1. On an overhead, have several sample analogies that use **OPPOSITES**. Ask students to watch you fill in the missing word. When they think they have the system, ask them to raise their hands briefly.
new : old :: wet: (dry)
up : down :: in : (out)
fast : slow :: top : (bottom)
hot : cold:: fast: (slow)
2. Continue the samples until a good number of students have caught on. Ask several students to explain how they figured out the answers. (The pairs of words are opposites. OLD is the opposite of NEW. Therefore, the missing word has to be the opposite of wet. Answer: dry, etc.)
3. Have students pair with someone and create their own opposite analogies. Check answers for correctness and then share with the whole class.
4. Tell students that the patterns they have been working with are called **ANALOGIES**. Ask them to come up with a definition of an analogy. Share several. Agree on one that closely matches the definition given at the top of this page.
5. Explain that there are relationships other opposites that can be used to build analogies. Tell them that in the days that follow, you are going to give them several examples. SPLIT THE EXAMPLES SO THAT YOU DO A DIFFERENT ONE EACH DAY. GREAT BELL-STARTER! **For each set, you will follow the same procedure as you did with the opposites.** Hint: It will be very helpful to have dictionaries and thesauri on hand.
6. Similar concepts: Adjacent concepts are synonyms.
jump: leap:: shout: (scream)
halt: stop:: rough : (coarse)
fast: swift:: pause: (wait)
hit: strike:: blunder: (mistake)
think: ponder: clatter: (noise)

7. Class membership: Adjacent concepts belong to the same class or category
- | | |
|---|-----------------------|
| pink: blue :: elephant: (<u>any animal</u>) | colors/animals |
| two story : split level :: rose : (<u>any flower</u>) | houses/flowers |
| Chevy: Ford :: pie: (<u>any dessert</u>) | cars/desserts |
| aspen: pine :: river: (<u>any body of water</u>) | trees/bodies of water |
8. Class name and Class Member: Adjacent concepts state a specific member of a class or category and then gives the class name.
- fork: utensil :: bee: (insect)
- Honda: car :: Colorado: (state)
- red: color :: sandwich: (food)
- Elmer's: glue :: Conoco : (gas station)
- wheel: car :: heel: (shoe)
- finger: hand :: leg: (table/chair)
- brim: hat :: limb: (tree)
- bulb: lamp:: stem: (flower)
9. Change: One element in a set turns into the other element or has a causal relationship.
- seed : plant :: (caterpillar) : butterfly
- tadpole : frog :: (colt) : horse
- kitten : cat :: (lamb) : sheep
- gosling : goose :: (calf) : cow or bull
10. Function: One element in a set performs a function on or for another.
- tutor : student :: (mechanic) : car
- doctor : patient :: (salesperson) : customer
- driver : bus :: (gardener) : flower bed
- conductor : orchestra :: (guide) : rafting party
11. Quantity/size. The two elements in the set are comparable in terms of quantity, size, are physical dimension.
- valley : hole :: (lion) : kitten
- mansion : home :: (skyscraper) : small building
- mole hill : mountain :: ditch: (ravine or chasm)
- teaspoon : gallon :: inch : yard
12. Once students are familiar with analogies where they supply just one word, introduce them to analogies in which they complete by choosing the answer from a list of possibilities.
- Example: man: boy :: king: _____
- a) child
 - b) prince
 - c) queen
 - d) son

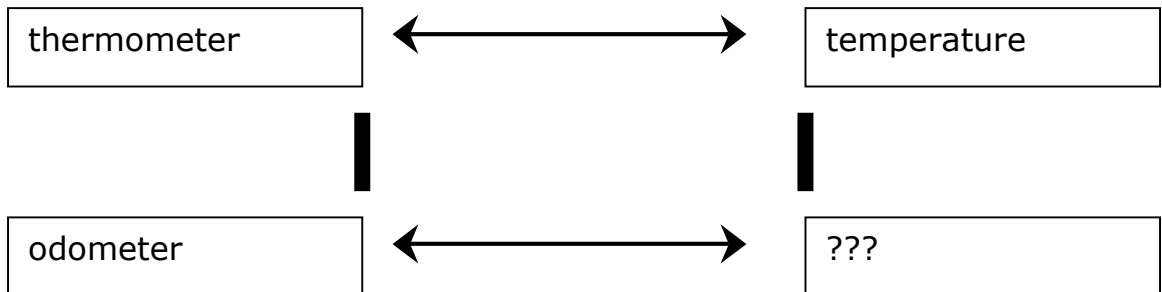
13. Share the following reasoning steps with them:

- Identify relationships between the first two elements in the first set (man and boy).
- Identify which element in the first set (man) is most closely related to the single element in the second set (king).
- Identify which of the four completion choices would make the second set of elements have the same relationship as the first set.

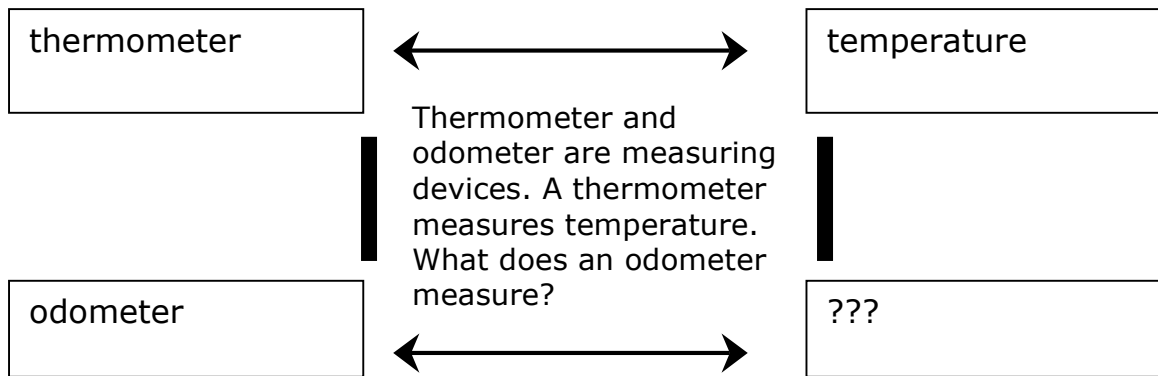
III. Provide graphic organizers and demonstrate the model.

Thermometer : temperature :: odometer : ?

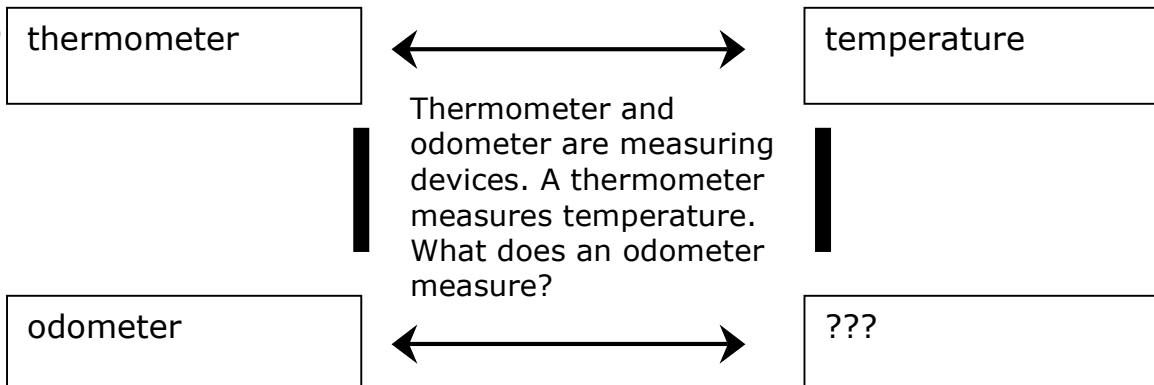
1.



2.



3.



IV. Discuss key points

1. Like metaphors, analogies help us to see how seemingly dissimilar things are similar, increasing our understanding of new information.
2. Analogies can be used as an academic exercise to examine a person's ability to identify relationships and also as a means of testing vocabulary knowledge. These are the kinds of analogies that are commonly used on standardized tests.
3. Analogies also can be used to relate information read in stories to real-life situations. For example, in *The Kay* by Theodore Taylor, residents watch a tanker filled with aviation fuel to help the war effort go out from the harbor only to see it torpedoed as it reaches open water. A real life analogy would be the spectators watching the launching of the Challenger space craft as it took the first teacher into space only to see it burst into flames.

V. Guided practice with graphic organizers.

Provide students with blank graphic organizers or representations to help them understand and use the process of analogies. SUGGESTION: Be sure to generate analogies which relate to specific subject matter.

Example:

evaporation : water :: photosynthesis : _____

legend : map :: _____ : dictionary

GRAPHIC ORGANIZER FOR ANALOGIES

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Metaphors

I. Define Term

A metaphor is a figure of speech in which a word or phrase, that literally denotes one object or idea, is used with or in place of another object or idea, to suggest a likeness between them. Stated more simply, it is the process of comparing one noun to another unrelated noun.

II. Give Steps

1. To introduce the concept of metaphors, ask students to discuss the following question:

If the classroom is an ocean liner, what is the role of the teacher?

Have students share different responses with the whole class.

Responses might include: -captain of the ship -rudder of the ship, etc.

2. An alternate activity: Ask students for the names of four objects, (e.g., household items).

Place the names of the four items in four different boxes.

Have students complete the statement:

If the classroom is a _____ then the role of the teacher is a _____.

(using one of the four items in the first blank).

This activity can be done using one or more pictures of physical objects as the starting point for the metaphor. For example, the suggested items might be a toaster, microwave, couch, and lamp. The sentence for the activity then would be: If the classroom is a toaster, then the role of the teacher _____.

3. Using the following sheet as an overhead transparency, ask students to look at the two examples on the overhead and identify which is the metaphor and which is the analogy.

Have students share what they already know about metaphors and analogies.

Ask a few people to share with the group.

4. Note that these introductory examples are based on information and concepts that are presumably familiar to do.

5. After completing these introductory examples, go over the following:

Since metaphor is the process of comparing one noun to another unrelated noun, it is good to give examples and then discuss them.

"Drowning in money" is a metaphor, as is "Love is a rose."

6. The key to constructing metaphors is for example, with "Love is a rose", the state of love and love have no obvious relationship on the surface. However, at an abstract level, they do. Love and a rose can give us pleasure; (when we are 'in love, we often feel happy; smelling, touching, and looking at a rose can bring pleasure). Love and a rose can bring us pain, (being in love can be painful, like the

thorns of the rose that can bring pain.)

III. Demonstrate Model

Metaphors are bridges. They create images, and, by connecting any two different ideas, persons, places, and things, they show things in new ways.

Examples:

Trees are earth's hair.

Work is the velcro that keeps sticking to you.

Television is a pacifier for teens.

Morning is the topic sentence of my day.

Clocks are electric roosters.

A circle is a line that eats its own tail.

Doubt is a raging fire lit against the paper of confidence.

Practice writing metaphors:

A. First, write metaphors on the lines below.

Examples: Hair is a broom.
 Love is the wind.

B. Then, answer the questions Who?, What?, Where?, When?, Why?, or How? about some of your comparisons in order to elaborate on the idea you have created.

Example: Shoes are hats (where?) at the other end.

Fill in together:

Heart of _____.
(stone, gold, jello, hope.)

Hate is _____.
(a worn-out light bulb-it has no use.)

Tears are _____.
(reminders of broken dreams.)

As the students become more comfortable with their understanding of metaphors, their use can be broadened to less familiar academic content.

IV. Discuss Key Points

Since the writing of similes and metaphors can be creative and fun, make sure the students understand that metaphors are a comparison just like similes.

All you need to do is to leave out the "like" or "as", when creating the metaphor.

Example: **He** is like a **tower of strength**. (simile.)
He is a **tower of strength**. (metaphor.)

Practice with the entire class will familiarize the students with the process of creating good metaphors.

V. Graphic Organizers

Element/Item

Literal Pattern

Element/Item

Literal Pattern

Abstract Relationship

.....

Element/Item

Love

Literal Pattern

One feels happy when in love. Loss of love can be painful. There are different kinds of love (e.g. friendship, family, pet, lover.)

Element/Item

Rose

Literal Pattern

It smells, looks, and feels nice. The thorns are sharp & can hurt. It can come in different varieties

Abstract Relationship

Gives us pleasure.
Gives us pain.
Different varieties.

The eyes are the
windows
to the soul.

Azalea is to petunia
as box is to crate

Lesson Plan Sheet

Identify what we want students to know by the end of the unit.

Standard / Proficiency:

As a result of this unit / lesson, students will (circle the appropriate):
know / understand / demonstrate/ master

Instructional strategy or strategies selected:

_____ similarities / differences

Comparing and contrasting

Classifying

Creating metaphors

Creating analogies

_____ summarizing, note-taking

_____ reinforcing effort and provide recognition

_____ assigning homework and practice

_____ generating non-linguistic representations

_____ using cooperative learning

_____ setting objectives and providing feedback

_____ providing cues, questions, and advanced

Rubric for _____ Student Name _____

Missing/Incomplete	Pre basic	Basic	Proficient	Advanced
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

References

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