Maximizing Use of Graphic Organizers

Resources: p. 2
Instructional Support: pp. 3-12

Organizers with Visuals for Young Children: pp. 13-18
(can be modified for older learners when classifying visuals or using Roundrobin to categorize examples/vocabulary into large organizers)

Samples of Venn Diagrams pp. 19 –39
Samples of Comparison Matrices: 40-51
Sample Sentence Prompts: 52-56

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Permission to use in class
RESOURCES FOR GRAPHIC ORGANIZERS

Multiple examples in English and Spanish are available in “Graphic Organizers” Education Place at http://www.eduplace.com/graphicorganizer/index.html.

Excellent free examples in English and Spanish are available at http://www.region15.org/curriculum/graphicorg.html from Pomperaug Regional School District 15 in Connecticut. They are in PDF files or Word files. It requests a password but still appears.

A comprehensive resource for English Language Arts is available at http://www.greece.k12.ny.us/devel/Dist_Indices/departments.htm by Greece Central School District in New York. Select Curriculum and Instruction, Select Language Arts, See Reading Outcomes and Tools. See other helpful links, ex. both Elementary and Secondary Language Resource Guides

“Teacher Tools” has multiple helpful links in the “Graphic Organizers” section. http://cheriejohnson.tripod.com/ritti/teachertools.htm

One of the links, “Write Design” is a good place to start for a definition and an overview of the different kinds of graphic organizers. The link to “Index: Graphic Organizers” is a quick way to access organizers for a specific purpose.

Inspiration is a user-friendly software for constructing web diagrams that can be converted to outlines of vise-versa. Kidspiration, is the children’s version and has multiple advantages for students learning a new language. For additional information, visit http://www.inspiration.com/home.cfm

“Cool Tools for Teachers” with many examples for secondary teachers is located at http://www.lausd.k12.ca.us/Lincoln_HS/Burleson/cool_tools/main.htm and contains links to Explanations of Thinking Maps, beneficial to all grades, secondary examples and Process Maps for writing assignments.

Another resource with many blank organizers that are not available on some of the other sites, plus examples at higher grade-levels, can be accessed at http://muskingum.edu/~cal/database/organization.html

OTHER LINKS RELATED TO HIGHER-ORDER THINKING

“Major Categories in the Taxonomy of Educational Objectives (Bloom 1956)” http://faculty.washington.edu/krumme/guides/bloom.html


“Critical Thinking in a Digitized Age” core concepts, principles and definitions to be used by the area 3 tech hub critical thinking group (from Marzano, et. al., Dimensions of Thinking: A Framework for Curriculum and Instruction) http://www.lth3.k12.il.us/crit_think/CORECONCEPTS.html

“Strategy List, 35 Dimensions of Critical Thought” (Formally named) http://www.criticalthinking.org/K12/k12class/strat/stratall.html

MAXIMIZE LEARNING WITH GRAPHIC ORGANIZERS

SUPPORT INSTRUCTIONAL PRINCIPLES (The big ideas)

• Identify big ideas (enduring understandings) to be taught.
• Understand the type of thinking required to process a principle.
• Select organizers that promote that type of thinking.

TEACH DEVELOPMENTALLY APPROPRIATE SKILLS

• Progress from simple to complex thought processes.
• Progress from concrete to complex abstract input for organizers.
• Progress toward individual competence in use of organizers.
• Preclude use of organizers with needed readiness activities.
• Model progressive development of language to support the thought processes.

PLAN FOR ACTIVE INVOLVEMENT OF ALL LEARNERS

• Provide structure for class, team, pair, and individual activities.
• Provide success and challenge opportunities for multilevel student populations.
• Employ strategies to raise the thinking level.

BENEFITS OF GRAPHIC ORGANIZERS

DEVELOPMENT OF HIGHER LEVEL THOUGHT

• Graphic organizers often incorporate higher-level thinking.
• Users must evaluate input and select only the most essential information since there is generally not enough room to copy directly from a source.
• Metacognitive development occurs as students explain their own thought processes and are exposed to the strategies and thinking of others.
• The format often encourages students to expand beyond the source(s): to access prior knowledge, to predict and question, to investigate further.
• Because students are often thinking at a higher level, they can more readily identify: ambiguities, the need for clarification, and information that is missing.

APPLICABILITY FOR A WIDE RANGE OF LEARNERS

• Students with very diverse levels can often collaborate meaningfully on a graphic organizer.
• More advanced learners are often challenged by graphic organizers because the format gives them an opportunity to incorporate prior knowledge and real-world applications.
• Students who did not initially know the information at the comprehension level often have the opportunity to demonstrate their intelligence when higher-order thinking is required to complete the organizer.
• Students with low literacy skills, limited fluency in the language of instruction, and those with diverse learning styles can often process information presented in this format more readily than they can traditional text material.
• Organizers are often easily modified for special needs students and English language learners.

INCREASED LANGUAGE DEVELOPMENT

• Higher-level thinking prompts more use of language.
• Students can be provided guidance in the related language of thought.
• New content vocabulary is clearly presented on the organizer.
• Students must incorporate their own words when summarizing the information presented on an organizer.

GREATER RETENTION FOR ALL LEARNERS

• People retain:
  10% of what they read
  20% of what they hear
  30% of what they see
  50% of what they see and hear
  70% of what they say
  90% of what they say as they do or teach something. (E. Dale)

When students collaborate on a graphic organizer, they are saying, doing and teaching each other.

• They are also changing written or oral input to visual input that is meaningful to them.
• People retain information more readily when they are processing it at higher levels of thought. (Examples: Students are categorizing words rather than memorizing them. Students are often reading and listening at the analytical level rather than at the comprehension level.)
• The visual presentation of any organizer reflects the relationship of the concepts, promoting greater retention for most learners.
• It is more beneficial, and more fun, to study from notes on organizers than from traditional notes.

MORE EQUITABLE ASSESSMENT MEASURES

• After using an organizer for instructional purposes, they are often very effective for assessment purposes.
• Many students, who have trouble accurately reflecting their learning on traditional forced-choice tests, can often perform well on alternative assessment measures that include graphic organizers.
• The conceptual and strategic essence of a lesson is more evident to students who study from graphic organizers.
• It is easier to make modifications for special needs students with graphic organizers used for assessment purposes than it is to modify a traditional exam.
# PROGRESSIVE DEVELOPMENT IN USE OF GRAPHIC ORGANIZERS

<table>
<thead>
<tr>
<th>PROGRESSION FROM THE MOST CONCRETE TO THE MOST COMPLEX APPLICATIONS</th>
<th>PROGRESSION TOWARD PERSONAL UNDERSTANDING AND INDEPENDENT USE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simplest to Most Challenging:</strong></td>
<td><strong>Simplest to Most Challenging</strong></td>
</tr>
<tr>
<td>- Concrete objects</td>
<td>- Be exposed to the graphic organizer.</td>
</tr>
<tr>
<td>- Pictures</td>
<td>- Discuss purpose based on examples.</td>
</tr>
<tr>
<td>- Labels for pictures</td>
<td>- Follow directions to complete.</td>
</tr>
<tr>
<td>- Single familiar words</td>
<td>- Interpret the information on an organizer.</td>
</tr>
<tr>
<td>- Familiar words and phrases</td>
<td>- Suggest categories for an organizer.</td>
</tr>
<tr>
<td>- Familiar life application</td>
<td>- Select appropriate organizers for tasks:</td>
</tr>
<tr>
<td>- Below grade level text with:</td>
<td>- Choose from 2 dissimilar options</td>
</tr>
<tr>
<td>- questions or other prompts</td>
<td>- Choose from multiple dissimilar options</td>
</tr>
<tr>
<td>- no prompts</td>
<td>- Choose best from similar options</td>
</tr>
<tr>
<td>- use of multiple sources</td>
<td>- Invent an organizer to meet a purpose.</td>
</tr>
<tr>
<td>- Grade appropriate text with:</td>
<td></td>
</tr>
<tr>
<td>- questions or other prompts</td>
<td></td>
</tr>
<tr>
<td>- no prompts</td>
<td></td>
</tr>
<tr>
<td>- use of multiple sources</td>
<td></td>
</tr>
<tr>
<td>- Challenging life application</td>
<td></td>
</tr>
</tbody>
</table>

As students progress from the concrete to the abstract, in their use of any graphic organizer, they will also progress toward individual competence. See the next column.

To support the progression from the simplest to most challenging applications the instructional sequence would also reflect a progression from class modeling to individual applications:

- Contribute to class example.
- Collaborate with group or partner.
- Use independently.
SUGGESTIONS FOR DIFFERENTIATION WITH GRAPHIC ORGANIZERS

- If all students do not have literacy skills but have a wide range of oral proficiency, use the same organizer and visuals but differentiate directions for oral language or vocabulary specificity.

- Differentiate the oral language focus during development and provide diverse follow-up writing activities.

- Use the same organizer for all students but include visuals and/or resource materials with different readability levels.

- Use simple and more complex versions of organizers that meet a similar purpose: identifying attributes, categorizing information, sequencing events, identifying cause and effect, solving problems, analyzing a story, comparing and contrasting, evaluating, and so forth.

- Have some students complete an organizer with the teacher, others in teams or with a partner, some independently.

- In programs where it would be possible and appropriate, students complete the organizer in either their home language or a new language, whichever would provide both success and challenge opportunities.

COMMON PROBLEMS WITH GRAPHIC ORGANIZERS

1. The organizer is used to convey content but is not based on big ideas.
   - Students use the organizer in ways that do not reflect what is most essential to know about the topic.
   - Organizational problems result that impede thinking.
   - It is difficult to use such organizers as strategic preparation for writing, research, or speaking tasks.
   - Information gaps in the materials used to complete the organizers are not evident.

2. The organizer does not promote the thinking required to understand the important big ideas.
   - The organizer doesn’t match the big idea. Examples include: a sequence of events when a cycle is needed, a simple web when a Venn diagram or comparison matrix is needed, a timeline to express multiple causes for one event rather than a fishbone.
   - The organizer is so similar to the presentation of the materials that students can complete the organizer without understanding the ideas.
   - The organizer is functional, but a different one, still developmentally appropriate, would evoke more thought.

3. The organizer is not developmentally appropriate for the range of learners.
   - The organizer is cognitively either too simple or too complex.
   - The organizer does not match the motor skills of the students, for example, too small for emergent writers.
   - The organizer is not used in a meaningful context where students have either prior knowledge or comprehensible access to the content and vocabulary.
   - The readability level needed to complete the organizer is either too difficult or not challenging, and no developmentally appropriate alternative resources are provided.
While developmentally appropriate for some students, no alternative organizers that meet the same purpose are provided for students who would benefit from a simpler or more complex version. Some students may benefit from a completely different organizer that focuses on simpler or more challenging related ideas.

Some students will finish before others, and no challenge option is included in the assignment. Challenge examples include: rank the items on a web diagram based on some aspect of comparison, rank some aspects of comparison on a comparison matrix, complete a challenge option on an organizer, use more complex resources to add additional information to the organizer, use sentence prompts related to the thought process reflected on the organizer to express the important relationships, illustrate or draw symbols for the most important vocabulary or information, and prepare to role-play important relationships on the organizer. It is important that students who try the challenge have opportunities to share those tasks with the class.

4. There is not enough modeling prior to the degree of student accountability required.
   - Class modeling does not precede team or partner use; and/or team or partner use does not precede individual use.
   - Modeling does not include how to interpret completed organizers prior to independent use of them. Reading or interpreting completed organizers helps students understand the thought processes for creating them.
   - Cooperative structures for asking questions are not used during class modeling, so some students, unfortunately often those who most need the guidance, are not actively engaged.
   - Not enough structure is provided for individual accountability during team or partner use; consequently, the lowest performing students are often less involved during the guided practice that is so critical for them.
   - Students do not get enough varied experiences with a graphic organizer, preferably across disciplines, prior to individual accountability for applications not modeled.

5. There are problems with the format of the organizer.
   - The organizer is in a pictorial format that impedes rather than helps comprehension.
   - The writing space is either too small for the information needed, or too much space is provided and students can just copy text rather than selecting the most important information.
   - Students are asked to make their own organizers which may result in: too much educational time required for the task, ineffective use of the space provided, or sloppy organizers that impede learning (usually made by the student with the poorest fine motor skills who is the most dependent on a neat organizer).

6. Inadequate support is provided to express the information and relationships conveyed on the organizer as well as retain and expand on the learning.
   - Students complete a graphic organizer, but no follow-up discussion and/or reading and writing tasks are given. A common example is having students complete a comparison matrix without ever orally discussing or writing about the comparisons.
   - Once the organizer is complete, students may be assigned follow-up tasks without adequate modeling. Modeling examples include: oral and written language prompts to express the thought processes reflected by the organizer as well as examples of how people use organizers to prepare for oral presentations and write related sentences, paragraphs, or longer written forms.
• There is insufficient review and expansion related to the vocabulary and ideas to aide retention.
• Students receive minimal guidance in how to use the organizers to prepare for tests.
• Students are not exposed to ways the organizer is used outside of the classroom.

7. **There are management problems during use of the organizer in class.**

- Student expectations are not clearly communicated, and a pattern for orderly behavior and respect for each other and the learning process has not been established.
- Directions are not clearly communicated. Of course, confusion is less of a problem with adequate modeling.
- The grouping arrangements do not maximize learning opportunities.
  i. Too many students are expected to use one organizer. This is particularly problematic if four or more students are collaborating on the same sections of an organizer requiring all students to read or write the same text.
  ii. The academic or proficiency levels of the partners/team members are not the most effective given the student population and the assigned task. For example, pairing of a very top student with a student who needs a great deal of support may result in tutoring rather than cooperative learning. Language proficiency is also a variable. A student with limited language proficiency needed for a task, may benefit from native language support, while a student with more language skills may benefit from working with a partner in the new language. Two timid students may benefit from working with each other, and so forth.
- Class time is not used wisely. Examples include: giving directions and distributing materials takes too long, there is too little time or too much time to do the task, or students are not told how much time they will have.
- Students are not on task during class, team, partner or individual use. These are less of a problem if:
  i. cooperative structures are used to ask questions during class modeling,
  ii. individual accountability is clearly defined in team and partner tasks,
  iii. the tasks are developmentally appropriate for the range of learners,
  iv. there are challenge options for those who finish early, and
  v. the students who have time for the challenge are accountable to classmates rather than the teacher
21 SUGGESTIONS FOR RAISING THE THINKING LEVEL
WHEN USING GRAPHIC ORGANIZERS

1. Use organizers that match a big idea and write the idea on the organizer.
2. When more than one organize is appropriate, choose the one that evokes the most
   thought (or) give a simpler one for homework or individual work and a more complex one
   for team follow-up discussion (or) use organizers that meet the same purpose with
   different levels of complexity for the range of learners.
3. Use differentiation strategies suggested above.

HAVE STUDENTS DO THE FOLLOWING KINDS OF TASKS:

4. Write a statement expressing the essence of the information on an organizer (if the big
   idea is not provided by the instructor on the organizer).
5. Highlight the most important words on an organizer.
6. Draw symbols for confusing terms or the most important information.
7. Color-code information on an organizer and make a key.
8. Given a limited number of options on an organizer, select the most important information
   to include.
9. Rank the information on an organizer from the most to the least of a specified aspect.
10. Evaluate information as being positive, negative, or neutral.
11. Repeat ranking (or) positive/negative/neutral evaluations from a different perspective.
   Use the information on a simple graphic organizer as a springboard for completing a
   more complex one.
12. Use the reading strategy of Connect Two (PU) to identify and explain connections
    among key terms on an organizer.
13. Use sentence prompts to demonstrate sentence variety when expressing similar ideas
    or relationships on an organizer.
14. Following a Word Sort (PU) record the terms used in the sort onto an organizer. Add
    any needed terms.
15. Complete a section of an organizer or answer related questions that require drawing
    inferences, activating prior knowledge, and/or making predictions.
16. Create a role-play to represent information on an organizer.
17. Given a completed organizer prior to reading, discuss and predict textual information.
18. Given information for a blank organizer, predict placement on the organizer, read (or
    listen to a lecture) to check predictions and make corrections.
19. Given a task, select the most appropriate organizer from options and support the choice
    by explaining your rationale.
20. Design your own organizer to effectively represent information.
21. Compare your organizer with that of others and collaborate to evaluate the effectiveness
    of each.
TEN POINT CHECKLIST OF QUESTIONS
WHEN USING GRAPHIC ORGANIZERS

1. Does the organizer have a strong educational purpose? Does it promote attainment of school outcomes?

2. Does the organizer chosen match the thinking required for the big idea(s) being taught?

3. Would an alternative organizer promote more thought?

4. Do the students have the experiential and conceptual readiness required for the organizer?

5. Is the organizer at the appropriate level in the progressive development of needed skills?

6. Are there ways to increase thought with the organizer selected?

7. Will students collaborate on the organizer? If so, ask the following:
   • How will you structure involvement of all learners?
   • How will you increase language during the interaction?
     • Do you need a social skill focus?
     • What is the challenge activity for students who finish before others?

8. Is the organizer appropriate for a heterogeneous group of students, or can it be easily modified to include a wide range of learners?

9. How will students summarize, orally and/or in written form, the information presented on the organizer? Do they have the language needed to effectively communicate the information? If not, how will you teach the language for the thought processes reflected on the organizer?

10. Would the organizer be an effective alternative form of assessment? If so, how will it be used?
Example Of Focusing On Big Ideas When Using A Venn Diagram
To Compare And Contrast Two Animals

When comparing two very diverse animals, a suggestion for the aspects of comparison is to focus primarily on the big idea, “Animals are classified based on common characteristics.” The similarities and differences then would be the animal characteristics scientists consider when they classify animals.

When having students compare two animals in a common animal group, for example, two specific birds, the instructor could still start with the same big idea and think first about why the two animals are classified as birds.

SAMPLE TEACHER (T) AND STUDENT (S) DISCUSSION

T. Today we are going to compare two birds, a robin and an ostrich on a Venn diagram. We’re going to focus on how the robin and the ostrich are examples of the big ideas we learned about birds. When we finish our Venn, we will examine how those relate to the biggest ideas we’ve learned so far this year about all animals. To help us remember those really big ideas about all animals, let’s choral read them first.

Students with Teacher:

“Animals are classified based on common characteristics.
Animals have common needs.
The features and behaviors of animals help them meet their needs.
Animals adapt to their environments in different ways.
Plants and animals are interdependent.
Some animals care for their young.
Animals have a life cycle.”

T. In our Venn diagram to compare and contrast a robin and an ostrich, let’s start with our most important classification first. Remember, we studied that all animals are in two groups. What are the groups? Tell your partner. (Teacher calls on a student.)

S. Vertebrates and Invertebrates

T. Are birds vertebrates or invertebrates? Tell your partner.

S. Vertebrates

T. Let’s choral read that big idea. **S and T Birds are classified as vertebrates.**

T. Good. Let’s put vertebrates in the center. The teacher points to the spinal column of the bird. Everyone copy vertebrates on your Venn. Look again at the picture of the skeleton of a bird. The teacher uses think-pair-share to review. Think, What do you remember about the bones of all birds and how did we learn about the bones of birds? Tell your partner. Selected students will share with the class.

S. Sample student responses: They are hollow. They don’t weigh much. They’re light so they can fly. We weighed empty toilet paper rolls. We filled toilet paper rolls with paper and weighed them. We compared bird bones with bones of people and cows, etc.

T. That’s right. **All birds have hollow, lightweight bones.** Copy **light bones** on your Venn. How do you think the bones of the robin and the ostrich are different?

S. Students discuss size. They copy “bigger” on the ostrich side, “smaller” on the robin side.
The teacher could add the common characteristic of **well-developed organ system**. Students again choral read the big idea. **Birds have well-developed organ systems.** The students look again at a picture that shows the internal organs of birds. Students use the cooperative structure of stand-and-share to review the internal organs of birds. The students would think-pair-share infer related differences between the robin and the ostrich. They would again record differences related to size.

T. I’m going to put another important characteristic in the center, “**Birds are warm-blooded.**” For this characteristic there are no identified differences. Students recall in their teams how they learned the concept of warm-blooded. (They took temperatures of some students before going outside on a cold day, and took their temperatures again outside.) Think. What did we learn about warm-blooded animals? Let’s use Numbered-heads together. Put your heads together and make sure everyone can explain what warm-blooded means and can give 3 examples of warm-blooded animals. The teacher calls a number and the students with that number stand to answer. They take turns contributing to the answer.

**Sample student responses:** The body temperature stays the same.-The blood doesn’t get cold when it’s cold outside, etc. mammals, dogs, cats, bears, etc.

T. Everyone copy warm-blooded. Later this year we will study about cold-blooded animals.

T. Look at the big idea, **Birds are the only animals with feathers.** What would we put in the center? Tell your partner.

S. Feathers

T. Everyone copy feathers on the Venn.

**The teacher uses the cooperative structure of numbered-heads-together and asks students to add any other similarities.** Think about the purpose of the feathers or how feathers help the birds adapt to their environments? **Discuss the similarities first.** When you have two similarities, look for the differences between the robin and the ostrich feathers.

The teacher calls a number and those students stand and contribute to the Venn. Students copy what the teacher writes.

Continue in the same way with students from each team suggesting other ideas studied that are critical to the classification of birds.

- **All birds lay hard-shelled eggs.**
- All birds have two legs.
- All birds have wings.
- Most birds have slender cigar-shaped bodies.
- All modern birds have a beak without teeth.”

After students have contributed to a class Venn diagram that focuses on the common characteristics of birds, they could continue the following day on a different Venn.

With partners or in teams, students could then collaborate to compare and contrast how the two birds (or two other birds) meet their common needs: food, shelter, protection, ways of caring for their young, movement, etc. Students start by putting the need or the behavior in the center first. Then they look for related similarities and differences. When they finish their Venn-diagrams, they will discuss which big ideas about birds were exemplified. They will also identify which bigger ideas about all animals were included in the Venn.
EXAMPLES FOR YOUNG LEARNERS OF USING VISUALS IN GRAPHIC ORGANIZERS THAT MATCH BIG IDEAS

SUGGESTED DIRECTIONS FOR YOUR STUDENTS: Students demonstrate comprehension of the big ideas for each organizer by appropriately classifying the pictures provided into the graphic organizers. They use the cooperative structure of Roundrobin and take turns following developmentally appropriate language objectives.

Note that a language objective is given for each organizer, along with a “challenge”. The objective may reflect the focus for students with developing language proficiency. Entering and beginning students, as they are ready, will share any labels they can and try to repeat the modeling provided by students with higher language proficiency. They will, of course, make their own decisions with regard to picture placement. The “challenge” is the language objective for bridging and fluent speakers. For the instructor, it is easier to give one language objective and to then encourage students who are ready to try the challenge. This management approach minimizes the need for labeling students. Psychologically, it seems to work better to have students striving to try the challenge rather than specifying modifications for students with lower skills. The more advanced learners also generally attend more specifically to the language focus for the less proficient students and provide more explicit modeling.

Unless it is necessary for students to view all pictures to complete the organizer, the pictures are placed face down and students “draw off of the top of the deck”. For some organizers, two or even three (color-coded) stacks of pictures are used based on difficulty level. Students select pictures of the appropriate challenge level. For example, the white stack of pictures contains common vocabulary. The green and/or blue stacks are more challenging.

This section includes examples of organizers related to plants. (Teachers would need to identify appropriate pictures for each organizer.) The organizers would be made on large pieces of paper, and students would cooperate to place appropriate pictures on the organizers.

Management Options include:

- Each team of 4 has the same organizer and a set of pictures,
- Each team does a different organizer, and students rotate to new organizers each day,
- Every day, there is a different organizer available in one of the Activity Centers.
BIG IDEA: We eat different plant parts.

CONTENT OBJECTIVE: Classify pictures of food into the plant parts we eat.

<table>
<thead>
<tr>
<th>fruits of some plants</th>
<th>leaves of some plants</th>
<th>stems of some plants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>roots of some plants</th>
<th>seeds of some plants</th>
<th>flowers of some plants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tubors of some plants</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

LANGUAGE OBJECTIVE: Students practice the structures: This is ___spinach___. ___Spinach__ is an example of ___leaves___. OR These are ___Papayas___. ___Papayas____ are ___fruits___.

CHALLENGE: Students use the structure, “___Carrot__ belong(s) in the classification ___roots__.”. Give more information about the plant or tell about cooking or eating the foods. Write the words for each food picture in this organizer.
Organizer #2

BIG IDEA: We plant all seeds and can also eat some.

CONTENT OBJECTIVE: Classify seeds into the following 3 groups:

| seeds we eat raw | seeds we cook first | seeds we don’t eat |

Instructional Note: Include some real seeds, rather than just pictures of them and eat samples, cooked and uncooked.

LANGUAGE OBJECTIVE: Students practice the structures: People eat or don’t eat. People cook or don’t cook. I like or don’t like _______.

CHALLENGE: Students describe the seeds (size, texture, color) or explain how to cook them (boil, fry, bake). Students write the words in their individual organizers.

Organizer #3

BIG IDEA: Fruits and vegetables vary in size.

CONTENT OBJECTIVE: Rank seeds from the smallest to the largest.

smallest________________________________________________________biggest

Note: on picture cards, it is often difficult for students to differentiate the real size of unfamiliar foods. Enlarge or reduce the pictures to represent actual size. Use color-coded cards with common and less common foods to differentiate vocabulary for the range of learners. For example, banana is more common than rhubarb.

LANGUAGE OBJECTIVE: Students use comparative language ______ is smaller than and bigger than_______. Students use superlative language _______ is the biggest. ________is the smallest.

CHALLENGE: Students rank the “challenge foods” and discuss personal experiences, and describe how the food is prepared for eating. For example: peel the banana, husk the corn, crack the coconut shell, etc.
BIG IDEA: Some foods cost more than others.

CONTENT OBJECTIVE: Students predict the comparative cost of foods by ranking pictures of them.

CHALLENGE: Record today’s prices on the foods from local newspaper ads and make needed changes in the ranking.

LANGUAGE OBJECTIVE: Use comparative language: _______ is(are) less expensive than and more expensive than_______. : _______ cost(s) more than_______ and less than _______.

CHALLENGE: Discuss the conditions that affect food prices. If ____________, then _________.

Identify and read the related ads out loud while other students record the prices on the foods.

FOLLOW-UP: Based on student ideas from the challenge, role-playing of supply and demand, and pictures of climate and weather conditions, students contribute to a class web diagram to demonstrate the big idea: Many variables influence food prices.
Organizer #5

BIG IDEA: The food on plants grows in different places.

CONTENT OBJECTIVE: Classify pictures based on where they grow:

<table>
<thead>
<tr>
<th>on a tree</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>on a bush or stalk</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>on the ground</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>in the ground - (root crop)</th>
</tr>
</thead>
</table>

LANGUAGE OBJECTIVE: Students identify the food, the plant part, and describe where it grows.

Examples: These are cherries. Cherries are fruit. They grow on trees. This is a pineapple. It is a fruit. It grows on the ground.

CHALLENGE: Select from the challenge options. Describe what the food looks like and, if possible, how it tastes: sweet, bitter, tart, sour, or bland. Compare the food to a similar food. Potatoes are similar to yams. Both __________. Each ________. Like ________, ________ Describe differences ________, but ____.
BIG IDEA: There is a process of growing crops and ways to get more food from the land.

CONTENT OBJECTIVE: Classify pictures into the following phases of the process:

<table>
<thead>
<tr>
<th>PLANTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARING FOR PLANTS</td>
</tr>
<tr>
<td>HARVESTING CROPS</td>
</tr>
</tbody>
</table>

LANGUAGE OBJECTIVE: Students select from the easiest pile of pictures and describe the pictures using the basic vocabulary with present progressive. He/she is, or they are planting the seeds, watering the plant, pulling the weeds, harvesting crops. As able, students identify and match labels with (or label) the pictures with names of common crops and the basic words: dirt, water, tractor, seed, pot, and hose.

CHALLENGE: Students select from the challenge pile of pictures and use more specific language to describe farming, plants, and machines: soil, pesticides, vines, bogs, tubers, ripe wheat, field of barley, rice paddy, irrigation system, cultivator, vacuum seeder, combine, and cotton gin as well as specialized vocabulary for actions related to plants: cultivate, sow, reap, husk, spray, prune, flood, drain, gather, and so forth.
SAMPLES OF VENN DIAGRAMS FROM SIMPLE TO COMPLEX

Educators need to help the students they teach progress from simple to progressively more complex use of graphic organizers to organize, understand, retain and communicate information. The examples in this handout focus on use of the Venn diagram to compare and contrast.

The teacher begins with classification of concrete objects based on one aspect of comparison, for example:
- Students stand in a large Venn (made of yarn) based on clothing color. For example, students wearing blue, both blue and red, or red. To raise the thinking level, the teacher could direct students to the appropriate sections of the Venn, and the students could be asked to identify the placement rationale.
- Students collaborate to place objects in a Venn based on their composition: wood, metal and wood, metal.

Students classify pictures based on one aspect of comparison, for example:
- Students suggest classification of activity pictures based on season: summer, summer and winter, winter.
- In teams students take turns classifying pictures of transportation: public use, public and private use, private use.
- Students match labels with their pictures.

Given visual support, students use a word bank to classify words based on one aspect of comparison, for example:
- Students suggest word placement in a Venn: pets, pets & work animals, work animals.
- Students collaborate with a partner to place word cards on a Venn: things at home, home & school, things in school.

Students classify based on more than one aspect of comparison progressing from visuals to literacy tasks, for example:
- Students classify school pictures into school, school and home, and home based on three aspects of comparison: people, objects, and activities. Each aspect of comparison is on a separate line on a large Venn.
- Students contribute to a class Venn comparing and contrasting a firefighter and a police officer by completing the differences related to the similarities provided: serve and protect people, available 24 hours a day, call 911 for help, wear uniforms for identification, use special equipment to do the job.
- Students suggest important aspects of comparison for comparing and contrasting two common objects such as tennis shoes.
- Two classmates compare and contrast each other. Students discuss the aspects of comparison they used.

The following activities provide detailed examples of how students progress to more complex use of graphic organizers. Language for the related thought processes of comparing and contrasting are modeled throughout.
FAMILY WORK

BIG IDEA:
Family members work together to do household chores and errands.

CONTENT OBJECTIVE:
Sort work pictures into 3 groups:
1. inside the home,
2. inside and outside the home,
3. outside the home.

Challenge when done: Think about all cultures. Pay attention to the job, not the tools used to do the job.

LANGUAGE OBJECTIVES:
Describe pictures:
He is _____ing.
She is _____ing.
They are _____ing.

Ask, “Do you agree?”

CHALLENGE: Use prompts to agree, disagree and support opinions.

I agree with _______________ that _________________________________.

I concur with _______________ that _________________________________.

I support that idea because _________________________________.

I disagree with _______________ that _________________________________.

In some cultures people might _________________________________.

In my opinion ___________________ could be done ___________________.

If people didn’t have _______________, they would have to _______________. 
Classmate Comparison

BIG IDEAS:
• All people share similarities yet are unique from all others.
• Graphic organizers help organize information

CONTENT OBJECTIVE
Compare and contrast yourself and a classmate. Discuss aspects of comparison.

LANGUAGE OBJECTIVES:
1. Orally interview each other. (Use sentence prompts if needed.) Write (or draw) information on a Venn diagram.

2. Use sentence prompts to write comparative statements.

CHALLENGE: Use paragraph frames to write paragraphs comparing and contrasting yourself and your classmate.
CLASSMATE COMPARISON

BIG IDEA: People all have similarities but are also unique in many ways.

DIRECTIONS: Use the blank Venn diagram provided and interview a classmate to find out how you are alike and different. You may use the questions provided. Draw or record your answers on the Venn. When finished, use the sample sentence prompts for writing how you and your classmate are alike and different.

CHALLENGE: Make up your own questions and when finished, write a comparative essay using the challenge prompts provided for writing paragraphs.

SAMPLE QUESTIONS FOR CLASSMATE INTERVIEW

1. How old are you? I am _______ years old.

2. Where do you live? I live in ____________. (city name)
   I live on ____________ (street name)
   I live at __________________________. (address)

3. Where are you from? I am from ____________.

4. How many brothers and sisters do you have? I have _______. OR I am an only child.

5. How long have you lived in ____________ I've lived here for ________.

6. What is your favorite subject in school? My favorite subject is ____.

7. What is your favorite TV show? My favorite TV show is ____.

8. What is your favorite book. My favorite book is ________.

9. Who is your favorite singer? My favorite singer is ________.

10. What do you like to do in your free time? I like to ____________.
SIMILARITIES: How are you and your classmate alike?
1. ______________________ and I are alike in many ways.  
   (Name of classmate)
2. We are both ________________________________.
3. _________________ and I both live _________________________________.  
   (Name of classmate)
4. We both speak _________________________________.
5. We are in the same grade in school.
6. _________________ and I have the same _________________________________.
7. We are almost the same age.
8. We have a common interest. We both like _________________________________.
9. We are both studying _________________________________.
10. His (or her) family is _________________________________, and so is mine.
11. _________________ likes to _________________________________, and so do I.  
    (Name of classmate)
12. I want to be ______________________, and so does _________________________________.  
    (Name of classmate)
13. Our favorite ______________________ is _________________________________.

DIFFERENCES: How are you and your classmate different?

1. _______________ and I are **different** in several ways. *(Name of classmate)*

2. _______________ likes to play _________________, **but** I don’t. *(Name of classmate)*

3. _______________ likes _________________, **but** I like _______________. *(Name of classmate)*

4. 

5. I have _________________, **but** he (or she) **doesn’t**.

6. We enjoy **different** _________________.

7. _______________ has _________________, **but** I have _________________. *(Name of classmate)*

8. His (or her) family is _________________, **but** mine is _________________.

9. His (or her) hair is _________________, **but** mine is _________________.

10. He (or she) is taller (or shorter, older, younger) **than** I am.

11. I am taller (shorter, older) **than** _________________ is. *(Name of classmate)*

Write your own sentences or try the challenge.
CHALLENGE: Write two paragraphs.

How are you and your classmate similar and how are you different?

(Name of partner) and I interviewed each other to determine how we are alike and different.

It is evident that we are alike in many ways. Probably the most significant similarity between us is that we both ______________________________. Each of us ______________________________.

We_________________ the same ________________________________.

Like _____________________, I ________________________________.

Another similarity between us is that we ________________________________.

__________________’s favorite __________________ is ________________________________, and mine is too.

We also share a common interest in ________________________________.

A surprising likeness is that both _____________________ and I ________________________________.
In addition to our similarities, we differ from each other.

A significant difference is that ________________________________, but I ____________________.

While __________________ likes to ________________________________, I ________________________________.

(His or her) favorite ________________ is ________________; however, mine is ________________________________.

Unlike ________________, who ________________________________, I ________________________________.

Another difference between us is that I ________________________________, while ________________________________.

____________________ is important to ___________. In contrast, I am more interested in ________________.

To me, the most unique difference between us is ________________________________.

I ________________________________, but ________________________________.

In conclusion, we found that although we differ in many ways, we also have a great deal in common.
COMPARING AND CONTRASTING TWO SIMPLE PICTURE BOOKS FOR CHILDREN

POSSIBLE BIG IDEAS: Everyone has problems to solve. Sometimes it takes many tries to solve a problem. Sometimes everyone working together will solve a problem. Sometimes thinking and special talents will solve a problem.

### Aspects of Comparison

#### The Goat in the Chile Patch
- **Main character:** young boy
- **Problem:** goat eating chilies
- **Ideas for solving:** offer to help, take turns
- **Helpers:** rooster, bull, mosquito
- **How problem was solved:** Mosquito bit goat.
- **Solution:** Goat ran away.
- **Ending:** Goat never returned.

#### The Farmer and the Beet
- **Main character:** farmer
- **Problem:** crop problem
- **Ideas for solving:** help from animals
- **Helpers:** horse and dog
- **How problem was solved:** littlest animal last
- **Solution:** The problem was solved.
- **Ending:** Farmer was thankful

- **Helpers:** cow, cat, mouse
- **How problem was solved:** Mouse pulled with others.
- **Solution:** The beet came out.
- **Ending:** They all ate the beet.

NOTE: This Venn Diagram is based on the two children’s picture books, *The Goat in the Chile Patch* by Lada Josefa Kratky and *The Farmer and the Beet*, Addison Wesley publisher, The teacher asks students for comparisons based on the simplified plot line.
**DIRECTIONS:** This is a different way to compare and contrast *The Goat in the Chile Patch* by Lada Josefa Kratky and *The Farmer and the Beet*, Addison Wesley publisher. The teacher reads the similarity and half of the students choral read the differences for one story. The other half choral read the differences for the other story.

### Aspects of Comparison

<table>
<thead>
<tr>
<th>Problem</th>
<th>The Goat and the Chile Patch</th>
<th>The Farmer and the Beet</th>
</tr>
</thead>
<tbody>
<tr>
<td>A goat is eating the farmer’s chilies.</td>
<td>A farmer has a problem with his vegetable crop.</td>
<td>The farmer wants a beet for dinner, but the beet is too big. The farmer can’t pull it.</td>
</tr>
<tr>
<td>The farmer shouted at the goat.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goat kicked the farmer over the fence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A rooster tried, but it didn’t work.</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; animal helper came.</td>
<td>A horse helped pull, but the beet was too big.</td>
</tr>
<tr>
<td>A dog tried, but it didn’t work.</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; animal helper came.</td>
<td>A cow helped pull, but the beet was too big.</td>
</tr>
<tr>
<td>A bull tried, but it didn’t work.</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; animal helper came.</td>
<td>A dog helped pull, but the beet was too big.</td>
</tr>
<tr>
<td>A horse tried, but it didn’t work.</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; animal helper came.</td>
<td>A cat helped pull, but the beet was too big.</td>
</tr>
<tr>
<td>A mosquito bit the goat in the ear.</td>
<td>5&lt;sup&gt;th&lt;/sup&gt; animal helper came.</td>
<td>A mouse helped pull. Together they all pulled out the beet</td>
</tr>
<tr>
<td>The farmer thanked the mosquito, and the goat was never seen again.</td>
<td></td>
<td>All the animals ate the beet for dinner.</td>
</tr>
</tbody>
</table>

**NOTE:** The second Venn sample for this story demonstrates use of repetitive language for the following linguistic purposes: use of ordinal numbers, practice with negative past tense, "It didn’t work," and repetition of “too” as a negative descriptor, “It was too big.” In addition, students get repetitive practice with a sentence pattern for contrasting statements, “___________, but ___________.” After a class reading, partners take turns reading the similarities first and the related differences for each line.
**PLOT COMPARISON: Bringing the Rain to Kapiti Plain and The Wind Eagle.**

**BIG IDEA:** Long ago, people in many cultures told folktales to explain the unknown.

**BIGGER IDEA:** All cultures have ways of explaining the unknown. *(See directions next page.)*

<table>
<thead>
<tr>
<th>Aspects of Comparison</th>
<th>Bringing the Rain to Kapiti Plain</th>
<th>The Wind Eagle, Native American Folktale Retold by Joyce McGreevy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Title, Genre, &amp; Author</td>
<td>Poem based on Folktale by Verna Aardema</td>
<td>Picture book</td>
</tr>
<tr>
<td>2. Exposition</td>
<td>Kipat, African from the Nandi Tribe, was tending cattle on the Kapiti plains</td>
<td>Gluscabi, Native American, tribe unknown was fishing on a lake in the mountains</td>
</tr>
<tr>
<td>3. Conflict &amp; consequences</td>
<td>There was a drought. If rain didn’t come to the plains, the cattle might die.</td>
<td>Conflict: Man against Nature There was a weather-related problem that could affect their food supply.</td>
</tr>
<tr>
<td>4. Rising Action</td>
<td>Eagle flew overhead, feather fell. He used the feather to make an arrow. He also made a bow.</td>
<td>Each man felt he had the power to solve the problem and began immediately to seek a solution.</td>
</tr>
<tr>
<td>5. Climax</td>
<td>Kipat shot the arrow into the clouds, and the rain fell. He had the strength needed for this task.</td>
<td>Natural event explained through fantasy, supernatural powers were involved in each.</td>
</tr>
<tr>
<td>6. Falling Action</td>
<td>The drought ended, and the cattle had green grass to eat. Kipat married and had a son.</td>
<td>The problem seemed to be solved.</td>
</tr>
<tr>
<td>7. A second conflict</td>
<td>The years passed, but from time to time there is not enough rain, so the same solution is needed.</td>
<td>The solution wasn’t permanent. Another problem arose.</td>
</tr>
<tr>
<td>8. Resolution or Denouement (Endings)</td>
<td>Kipat’s son tends the cattle and shoots the arrow into the air to release the rain when it is needed.</td>
<td>Severe weather problems rare. The wind eagle promised to only flap his wings softly, but once in awhile he forgets.</td>
</tr>
</tbody>
</table>
**BIG IDEA:** Insects and Arachnids have many similarities but differ in important ways. **BIGGER IDEAS:** Animals are classified based on common characteristics. Features and behaviors of animals help them meet their needs. Animals have a life cycle and reproduce to maintain their species. Some animals are both beneficial and harmful to humans.

### Aspects of Comparison

<table>
<thead>
<tr>
<th>Aspects of Comparison</th>
<th>Insects</th>
<th>Arachnids</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. animal group (phylum)</td>
<td>grasshoppers, ants, flies, many others</td>
<td>spiders, ticks, scorpions, daddy long legs, a few others</td>
</tr>
<tr>
<td>2-6. characteristics of the phylum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Arthropod</td>
<td>Invertebrates Exoskeleton</td>
<td></td>
</tr>
<tr>
<td>3. body</td>
<td>Segmented Bodies</td>
<td>2 parts (head, abdomen)</td>
</tr>
<tr>
<td>4. appendages</td>
<td>Jointed Appendages (Legs)</td>
<td>8 legs</td>
</tr>
<tr>
<td>5. senses</td>
<td>Most have antennae</td>
<td>simple eyes second set of appendages used for touching and smelling, sensory bristles in some, some hearing organs on legs.</td>
</tr>
<tr>
<td>6. breathe</td>
<td>All organ systems present</td>
<td>air tubes in some, most with primitive respiratory organs (book lungs)</td>
</tr>
<tr>
<td>7. move</td>
<td>Sense Organs</td>
<td>crawl, some jump</td>
</tr>
<tr>
<td>8. eat</td>
<td>Obtain Food</td>
<td>carnivorous, with the exception of mites, some (spiders) spin webs</td>
</tr>
<tr>
<td>9. reproduce</td>
<td>Life Cycle (Grow and Reproduce)</td>
<td>Molt (shed exoskeleton) as they grow. All but scorpions lay eggs.</td>
</tr>
<tr>
<td>10. negative effects on humans</td>
<td>Harmful to humans</td>
<td>Few are poisonous. Others can cause disease.</td>
</tr>
<tr>
<td>11. positive effects on humans</td>
<td>Helpful to humans</td>
<td>Most eat insects, preventing destruction to food</td>
</tr>
<tr>
<td></td>
<td>Some pollinate flowering plants, some provide dyes, some health benefits, some produce silk used in clothes</td>
<td></td>
</tr>
</tbody>
</table>
LANGUAGE SAMPLES FOR COMPARING AND CONTRASTING

DIRECTIONS: Use some of the sentence prompts to demonstrate sentence variety when comparing and contrasting. 

CHALLENGE: After writing each similarity, write the differences for that aspect of comparison rather than writing all of the similarities and then all of the differences.

SIMILARITIES

EXAMPLES:
1. Insects and arachnids are **alike** in many ways.
2. The **most important similarity** is that they are both **arthropods**.
3. **Like all** arthropods, they are invertebrates.
4. Insects, like arachnids, **have an exoskeleton, a hard body covering**.

CHOOSE FROM THE SENTENCE OPTIONS TO WRITE MORE SIMILARITIES

5. **Both** animals have the **same kind of** ____________.
6. A **similarity** between the two animals is ____________.
7. A **common characteristic** of arachnids and insects is that they ________________.
8. **Both** animals **share** (have) the ability to ____________.
9. Eating (use any verb that fits)____________ is **common** for both arachnids and insects.
10. In addition to ________________ , **both** animals ________________.
11. Their appearance (habitat) is **similar** in many ways.
12. **Similar to** insects, arachnids ________________.
13. **Each** animal ____________.
14. A **commonality between** these two animals is the way they ____________.
15. Insects have ________________ which is similar to (identical to, like) that of arachnids.
16. Being primarily __________ animals, each ________________.
17. The practice of eating (any action)____________ is **similar to each** (common to both).
18. Arachnids and insects are **representative of all members of** the ____________.

19. Arachnids’ ____________, similar to that of insects, ________________.

20. Insects and arachnids **have the same** (belong to the same, are from the same) ____________.

21. **Common** needs are met in **similar** ways.

22. **Sharing a common** ____________, both insects and arachnids ________________.

23. Arachnids ________________, **similarly**, insects ________________.

24. Insects are **as** ____________ as arachnids.

25. **Neither** insects ________________ nor arachnids.

**DIFFERENCES**

**CHOOSE FROM THE SENTENCE OPTIONS TO EXPRESS THE DIFFERENCES.**

1. Insects and arachnids are alike in many ways; however, there are some important **differences**.

2. The most striking **difference between** the two animals is _____________. Insects ________, but arachnids ________.

3. ________________ is another critical difference. While insects ____________, arachnids ____________.

4. Insects are **more** ____________ than arachnids.

5. Most insects can ____________, but arachnids can’t.

6. Arachnids, **unlike** insects, ________________.

7. ________________ is another **difference between** the two animals.

8. Insects ____________, **conversely**, arachnids ____________.

9. Insects ____________, **whereas** arachnids ____________.

10. **Although** arachnids ____________, insects ________.

11. **Unlike** insects, arachnids ________________.

12. Insects ________________. **On the other hand** arachnids ____________

13. ________________, a characteristic of some arachnids, is **not present** among insects.
14. While arachnids_____________________, insects_____________.
15. The insects’ habit of _____________ is not a characteristic of arachnids.
16. Insects______________________, in contrast, arachnids___________________.
17. In contrast to insects, arachnids _________________.
18. Compared to arachnids, insects are more ____________________.
19. It is not common for arachnids to ________________, but insects _________________.
20. The_______ of insects is distinct from ___________________ of arachnids.
21. The way insects obtain food differs from arachnids ___________________.
22. ________________ is more difficult for insects than it is for arachnids.

CHALLENGE TASKS AFTER CLASS MODELING:
Write a paragraph comparing and contrasting one type of insect with one type of arachnid.

GREATER CHALLENGE
Write an essay comparing and contrasting two similar animals of a specific animal class, family, or biome. Demonstrate correct use of specific comparative vocabulary and incorporate sentence variety into the comparative essay. In the first paragraph introduce the animals to be compared, state the most important similarity and difference and summarize the aspects of comparison. In the following paragraphs, write the similarity and the related difference for each aspect of comparison. Write a summary paragraph restating the most important information.
COMPARISONS WHEN AVOIDING GENERALIZATIONS IS IMPORTANT

PRECEDING TASKS:
1. Identify and discuss common characteristics of all cultures.
2. Research ways a particular culture meets needs that are common to all cultures.
3. Share relevant information with a partner.
4. Identify the similarities and differences between the two cultures based on how each meets common needs and record on a Venn diagram.
5. Rank order a logical sequence for comparing and contrasting the two cultures.

ASSIGNED TASK:
Write a comparative essay comparing and contrasting how two cultures meet their common needs in similar and different ways. Refer to the samples provided to avoid making generalizations in the essay.

SIMILARITIES

There would be no need to avoid making generalizations when making statements about basic commonalties across cultures or when similarities are very evident. Examples follow.

Both Japanese and Mexicans share characteristics common to all cultures.
As in all cultures, the people of Mexico and Japan ________________.
Like all societies, each country ________________.
Common to people around the world, Mexicans and Japanese ________.
The Japanese, like Mexicans, ____________________.
The Mexicans and the Japanese are alike in their ________________.
Each culture has a similar ________________.
Japan ________________, likewise Mexico ________________.
(See other examples for describing similarities in the section on animals,)
Typically both cultures ______________________________.
It is typical for family members in each culture to ________________.
The people in each culture tend to ____________________________.
There is a tendency in both cultures to ________________________.
Generally these two communities ____________________________.
Japanese and Mexicans, in general, ________________________.
______________________ is as customary in Mexico as in Japan.
Customarily, the people of Japan and Mexico ____________________.
Apparently both cultures ____________________________.
It is seems apparent that the families in each society ________________.
Evidently each culture ________________________________.
One could infer that both Japanese and Mexicans ____________________.
Usually the children in each country ________________________.

DIFFERENCES

Very evident differences could be expressed in statements similar to those in the section on animals.

Typically Mexicans, _____________________, but the Japanese ____________.
In general, people in Japan ______; however, this is not common in Mexico.
Generally in the Mexican family, _________________, yet in the Japanese home ___________ is the custom.
Mexicans are more apt to __________________ than are the Japanese.
Although there is a tendency in the Japanese culture for people to ________, the custom in Mexico is to ________________.
In Mexico people customarily ________________, while in Mexico ________ is more common.
It seems that Mexican children ____________, while Japanese children ________.
____________ appears to be more important in Japan than it is in Mexico.
Apparently Mexico is more/less ____________ than Japan.
While not common in Japan, _________________ is clearly evident in Japan.

In general, Mexican people are more/less __________ than Japanese tend to be.
One could infer that in Japan ________________, yet __________ seems more typical in Mexico.
TOPICAL BIG IDEA: At the Constitutional Convention the Northern and Southern States made several compromises to get power distribution that reflected their beliefs, values, and interests. BIGGER IDEAS: 1) Those with the power in any community/society obtain, distribute, maintain, and exert their power in ways that reflect their beliefs and values at a particular time. 2) Compromise is a beneficial conflict resolution strategy.

Aspects of Comparison

1. Most important similarity and differences

**SOUTHERN STATES**
- Believe in "States Rights" and want most of the power to remain with the states.
- Agreed on Federalism: central government and state government.

**NORTHERN STATES**
- Believe in a strong central government and want the government to have more power than the states.

2. First big problem

- There were many small southern states. In an attempt to maximize state power, the South wanted the same number of representative from each state.
- They agreed on 3 branches of government and both wanted as much power as possible in the legislative branch.
- There were fewer states in the North, but they had large populations. They wanted the same number of representatives from each state, so they would have more power.

3. First compromise

- Great Compromise: 2 houses, not 1, in the legislative branch: Senate and House of Representatives.
- The number of representatives in the House of Representatives was based on population, giving the North more power in the House.

4. Second problem

- Southerners didn’t see slaves as people but wanted to count them so they could get more representatives in the House.
- Both wanted as much power as possible in the House, so disagreed on whether to count slaves.
- The North didn’t have slaves, so didn’t want the South to count them.

5. Second compromise

- Because they had many slaves, they got more representatives.
- 3/5th Compromise Each slave counted as 3/5th of a person.
- Because slaves were not counted equally, the South didn’t get as many representatives as they would have if slaves had been counted as a full person.

6. Third problem

- Fear government control of slave trade. Fear high taxes on imports.
- Both concerned about trade but disagreed on amount of government control.
- Wanted to stop slave trade. Wanted government to control all trade.

7. Third compromise

- South was satisfied with the slave trade agreements. In 20 years they can import slaves needed to reproduce in the U.S. South disagreed with import taxes, but their export crops were not taxed.
- No control on slave trade for 20 years. Runaway slaves returned. Gov. can tax imports but not exports. Gov. control all trade between states.
- North could stop slave trade after 20 years. The new tax powers for central government increased government revenue and strengthened central government, a goal in the North.

DIRECTIONS: Take turns paraphrasing each aspect of comparison. Each person expresses the similarity first, then the related differences. When done, use the comparative sentence prompts to demonstrate sentence variety. CHALLENGE: Use applicable prompts during the oral sharing to express the ideas in different ways and then write a comparative essay.

Prepared by Jeanette Gordon, Illinois Resource Center
How the Body Fights Disease

BIG IDEA: The body has defense mechanisms that help prevent illness.

<table>
<thead>
<tr>
<th>Body feature</th>
<th>Where is it?</th>
<th>What does it look like? Draw or describe.</th>
<th>How does it protect?</th>
<th>CHALLENGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td></td>
<td></td>
<td>skin</td>
<td></td>
</tr>
<tr>
<td>Saliva</td>
<td></td>
<td></td>
<td>Digestive System</td>
<td></td>
</tr>
<tr>
<td>Mucus</td>
<td></td>
<td></td>
<td>Respiratory System</td>
<td></td>
</tr>
<tr>
<td>Immune system</td>
<td></td>
<td></td>
<td>white blood cells and antibodies</td>
<td></td>
</tr>
</tbody>
</table>

CHALLENGE: When finished, prepare to role-play one of the defense systems of the body.

Prepared by Jeanette Gordon, Illinois Resource Center
## CELL TYPES

**BIG IDEAS:** Body cells work together to sustain life. There are different kinds of cells, each with a special job.

<table>
<thead>
<tr>
<th>NAME</th>
<th>Function of Cells</th>
<th>Shape of cells &amp; location</th>
<th>Why function is important</th>
<th>How cells perform function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHALLENGE:** Use sentence prompts to express why and how cells perform their functions: Sequential action, simultaneous action, conditions, and cause-effect.

Or use sentence prompts to compare and contrast the cells.
**ANIMAL FAMILIES**

**Big Ideas:** Animals are classified based on common characteristics.
   Features and behaviors of animals help them meet their needs in similar and different ways.

<table>
<thead>
<tr>
<th>family</th>
<th>animal</th>
<th>vertebrate or invertebrate</th>
<th>type of covering</th>
<th>movement</th>
<th>food</th>
<th>habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>birds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reptiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mammals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fish</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>amphibiaians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Directions: Team Jigsaw (Each team teaches a different animal family)

Challenge choices: Tell about the life cycle of the animal. Choose another animal example.

Follow-up choices:
Compare and contrast the animals using similar and different sentence prompts.
Use connect-two prompts to state relationships.
Use the following paragraph frame.

The __________________ is a ___________________. It belongs to the

_____________ family. Its body is covered with _________________.

The _______________ moves by _______________. It eats _________________.

It lives in the ___________________
FOUR KINDS OF MOUNTAINS

BIG IDEA: The earth’s moving plates cause mountains to form in different ways.

<table>
<thead>
<tr>
<th>MOUNTAIN</th>
<th># Plates</th>
<th>Cause</th>
<th>Effect</th>
<th>Picture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fold Mountains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block Mountains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dome Mountains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcanoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DIRECTIONS: Use the cooperative structure of Within-Team Jigsaw to complete the comparison matrix.

CHALLENGE: Use cause-effect sentence prompts to write the cause-effect relationships in different ways.

Prepared by Jeanette Gordon, Illinois Resource Center
### COMPARISON OF WEATHER DATA AND WEATHER INSTRUMENTS

<table>
<thead>
<tr>
<th>WEATHER DATAe</th>
<th>WEATHER INSTRUMENT</th>
<th>UNIT OF MEASUREMENT</th>
<th>DESIGN (HOW IT’S MADE)</th>
<th>CHALLENGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>temperature</td>
<td></td>
<td></td>
<td></td>
<td>What is the scientific principal that influences the design?</td>
</tr>
<tr>
<td>air pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wind speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relative humidity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DIRECTIONS:** Use Within-team Jigsaw to complete the matrix.
**CHALLENGE:** Read more complex information to answer the final column.
After each team member teaches his/her row, collaborate to complete the final column.

Prepared by Jeanette Gordon, Illinois Resource Center
**COMPARISON OF ENERGY SOURCES**

**BIG IDEA:** There are multiple sources of energy each with advantages and disadvantages.

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
<th>Uses</th>
<th>Obtain by….</th>
<th>Renewability</th>
<th>Cost</th>
<th>Dangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear Fission</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solar Energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DIRECTIONS:** Use Team Jigsaw to teach the information about your assigned energy source.

**CHALLENGE:** Use sentence prompts to compare and contrast the energy sources based on the aspects of comparison.

**SUPER CHALLENGE:** Rate the last four columns. Hardest to obtain to easiest, takes the longest time to renew to the shortest time, costs the most to costs the least, is the most dangerous to the least dangerous to workers and/or consumers. 4 is most, 1 least.

Prepared by Danette Erickson Meyer and Jeanette Gordon, Illinois Resource Center, (847) 803-3112
CHECKS AND BALANCES: PREVIEW ACTIVITY

BIG IDEA: In any community, people establish ways of checking-up on others to guide and protect its members.

CONTENT OBJECTIVE: Students use a comparison matrix and the cooperative structure of Within-team Jigsaw to compare and contrast how different members of society check up on each other.

LANGUAGE OBJECTIVE: Students use comparative sentence prompts to orally demonstrate sentence variety and use limiting vocabulary to avoid making generalizations. Students take notes by writing key words to promote recall of the ideas expressed.

SOCIAL OBJECTIVE: Students demonstrate respect toward cultural or family differences.

SAMPLE PROMPTS FOR SIMILARITIES

• Like______, I find that sometimes police officers ________.
• Similar to___________, the teachers in my country often_____________.
• It seems common across cultures for parents to ___________
• ______’s friends and mine both ________.

SAMPLE PROMPTS FOR DIFFERENCES

• Unlike __________, whose parents ____________, my parents ____________.
• While the teachers in the United States typically ____________, teachers in my country usually _______
• Police officers tend to __________ less/more than they do ________________.
• Teenagers I know generally ____________, but _________________.

Evidence of learning: Teacher observations of student talk.
<table>
<thead>
<tr>
<th></th>
<th>teen-ager</th>
<th>parent</th>
<th>teacher</th>
<th>police officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>teen-ager</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>police officer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# CHECKS AND BALANCES

**BIG IDEA:** In democracies power is divided, balanced, and the groups with power have ways of checking the power of other groups.

<table>
<thead>
<tr>
<th>EXECUTIVE</th>
<th>LEGISTATIVE</th>
<th>JUDICIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRESIDENT</strong></td>
<td>veto a bill passed by Congress</td>
<td>grant pardons and amnesty</td>
</tr>
<tr>
<td></td>
<td>refuse to pass legislation</td>
<td>appoint judges</td>
</tr>
<tr>
<td></td>
<td>call sessions of Congress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recommend legislation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>send troops w/o war declaration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>propose budget</td>
<td></td>
</tr>
<tr>
<td><strong>CONGRESS</strong></td>
<td>approve federal judges</td>
<td>approve federal judges</td>
</tr>
<tr>
<td></td>
<td>approve treaties/appointments</td>
<td>determine number of judges</td>
</tr>
<tr>
<td></td>
<td>override presidential veto</td>
<td></td>
</tr>
<tr>
<td></td>
<td>impeach &amp; remove from office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>determine number of judges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>approve budget</td>
<td></td>
</tr>
<tr>
<td><strong>SUPREME COURT</strong></td>
<td>declare a law unconstitutional</td>
<td>declare a law unconstitutional</td>
</tr>
<tr>
<td></td>
<td>declare pres. act unconstitutional</td>
<td>set up an investigation</td>
</tr>
<tr>
<td></td>
<td>stop or limit presidents actions</td>
<td>(Note: supreme court can also declare</td>
</tr>
<tr>
<td></td>
<td>force president to do something</td>
<td>state laws unconstitutional)</td>
</tr>
<tr>
<td></td>
<td>(place an injunction on pres.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>set up investigation</td>
<td></td>
</tr>
<tr>
<td><strong>THE PEOPLE</strong></td>
<td>vote for president &amp; vice president</td>
<td>vote for senators &amp; representatives</td>
</tr>
<tr>
<td></td>
<td>lobby/special interest groups</td>
<td>lobby/special interest groups</td>
</tr>
<tr>
<td></td>
<td>campaign for candidate</td>
<td>campaign for candidate</td>
</tr>
<tr>
<td></td>
<td>protests and letter writing</td>
<td>protests and letter writing</td>
</tr>
</tbody>
</table>

**DIRECTIONS:** Roundrobin read the cards and predict placement in the matrix. Read to check placement predictions. When finished checking the matrix, use the following sentence prompts to express what each branch can do and how that power is checked.

The president can, _______________, but _______________. The legislative branch can _______________, but _______________.

The Supreme Court can _______________, but _______________. The people can ________________, but _________________.

**CHALLENGE:** Use the sentence prompts on the back to promote more sentence variety OR read a more complex selection.
CHECKING POWERS IN THE U.S. GOVERNMENT

1. ___________ has the power to ________________________________, but __________________________________________.

2. While _________________ can ____________________________, ____________________________________________.

3. _____________ can_________________________; however, ________________________________________________.

4. One way _______________________ can check the power of ________________________________
    is by ______________________________________________________________________________________________.

5. Even though the Constitution gives _____________ the power to ________________________________,
    that power is curtailed by ____________________________ ’s option to ____________________________________________.

6. ________________ has the right to ________________________________, but _________________ checks that power
    through ____________________________________________________________________________________________.

7. Given the right to ________________________________, __________________________ can limit
    _________________’s power to __________________________________________________________________________.

8. Despite the ___________________________ ’s Constitutional right to ________________________________,
    _________________ can prevent abuse of that power by _________________________________.

9. The ultimate check on governmental misuse of power is held by __________________________ who have the power to

Prepared by Jeanette Gordon and Danette Erickson Meyer
COMPARING AND CONTRASTING ADDITIONAL POWERS OF THE PEOPLE AT THE STATE LEVEL

BIG IDEAS: People seek to enhance their power in many ways. Reform movements often expand the power of the people.

Topical Main Ideas: United States Citizens influence and check governmental power in many ways.

- Reform movements influenced national legislation that gave citizens more power. (Preview of other reform legislation.)
- Citizens have legislative powers at the state level in addition to campaigning for, voting for, and influencing elected officials.
- At the state level citizens have ways of removing elected officials from office.

DIRECTIONS: Use Team Jigsaw to teach the class the power of the people assigned to your team. Incorporate role-play.

CHALLENGE: Investigate and share a current example.

DURING CLASS ROLE-PLAY: Complete the matrix. FOLLOW-UP: Teams rank the powers from the most important to the least.

<table>
<thead>
<tr>
<th>More checking powers of citizens</th>
<th>Why is it used?</th>
<th>Who starts the process?</th>
<th>Is a petition involved? If so, how?</th>
<th>Who votes on it?</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petition referendum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional referendum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory referendum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prepared by Jeanette Gordon, Illinois Resource Center
SENTENCE PROMPTS FOR COMPARING SIMILARITIES

_____________ and _______________ are alike in many ways.

Both _______________ and _______________.

_______________________________ and ____________________________ the same ___________________________.

Both _____________________________ share ________________________________________________________________.

_______________________________ as _________________ as __________________________.

(is, are) (adjective: tall, old, etc.)

A common characteristic of each is ________________________________________________________________.

Like ______________________________, similar to ______________________________, similar to ______________________________.

_, and so ______________________________.

Neither __________________________ nor ____________________________ ________________________________________.

Each _________________ ________________ a similar ____________________________________________________.

_______________________________, likewise ____________________________________________________________.

Perhaps the most significant similarity is ________________________________________________________________.
SENTENCE PROMPTS FOR CONTRASTING DIFFERENCES

__________________________ and ______________________ are different in many ways.
__________________________, but _________________________________.
__________________________ ; however, _________________________________.

__________________________ ______________________er than__________________________ ______________________er than
(is,are) (adjective: taller, older, etc.)
__________________________ ______________________not as ______________ as__________________________ ______________________not as ______________ as
(is, are) (adjective, tall, old, etc.)
__________________________ ______________________more ______________ than__________________________ ______________________more ______________ than
(is,are) (adjective: beautiful, dangerous etc.)
__________________________ ______________________less ______________ than__________________________ ______________________less ______________ than
(is,are) (adjective: helpful, interesting etc.)

While ________________________________, _________________________________.
__________________________, yet _________________________________.
__________________________; conversely, _________________________________.

In contrast to ________________________________, _________________________________.
__________________________, in contrast, _________________________________.

It is not common for ________________________________ to ______________; however, _________________________________.

Unlike _______________ that______________________________, _________________________________.

An important difference between __________________ and ____________________ _________________________________.

52
COMPLEX SENTENCES TO EXPRESS SEQUENTIAL ACTION

Before ________________________________________, ________________________________________.

After ________________________________________, ________________________________________.

______________________________________ before ________________________________________.

______________________________________ after ________________________________________.

When ________________________________________, ________________________________________.

______________________________________ when ________________________________________.

COMPLEX SENTENCES TO EXPRESS SIMULTANEOUS ACTION

When ________________________________________, ________________________________________.

______________________________________ when ________________________________________.

As ________________________________________, ________________________________________.

______________________________________ as ________________________________________.

While ________________________________________, ________________________________________.

______________________________________ while ________________________________________.
SENTENCE PROMPTS TO EXPRESS CAUSE AND EFFECT

____________________________________, so_____________________________________.

____________________________________because________________________________________.

Because_____________________________________, ____________________________________.

Since_____________________________________, ______________________________________.

_____________________________________ since _______________________________________.

_____________________________________; consequently, ____________________________________.

_____________________________________; therefore, ________________________________________.

___________________________________ causing ________________________________________.

____________________________________ which causes (caused) ____________________________.

______________________________________ resulting in _________________________________.

______________________________________ which results (resulted) in ________________________.

____________________________________ affects (affected) ________________________________.

Now that ________________________________, __________________________________________.
COMPLEX SENTENCES TO EXPRESS CONDITIONS

If _________________________________, ____________________________________________.
_______________________________ if ________________________________________________.

Unless ________________________________, ____________________________________________.
_______________________________ unless ____________________________________________.

Only if __________________________________________________________________________.
______________________________only if ________________________________________________

If the particular condition doesn’t matter, the result will be the same, use the following:

Even if ________________________________, ____________________________________________.
______________________________whether or not ____________________________________________.

Use the following when something probably won’t happen in the future, but it might.

In case __________________________________________________________________________.
__________________________in case ________________________________________________.

In the event that ___________________________________________________________________.
__________________________in the event that ____________________________________________.