

# ***Activators: Classroom Strategies for Engaging Middle and High School Students***

## **Card Sorts Examples**

Chapter 9, Card Sorts, describes how students can collaborate to sort, match, or sequence cards with a variety of content information. We have provided several examples of card sorts, as follows:

- Math: Geometry (Volume and Surface Areas of Geometric Solids)
- Science: Biology (Cell Organelles)
- Social Studies: Geography (Geography Terminology)
- English Language Arts: Vocabulary (Latin word roots)
- World Languages: Spanish (Thematic Vocabulary)
- Emotions Cards
- Group Behaviors Cards

We invite you to copy and use these with your students, and we encourage you to develop and use your own card sorts to fit your teaching needs.

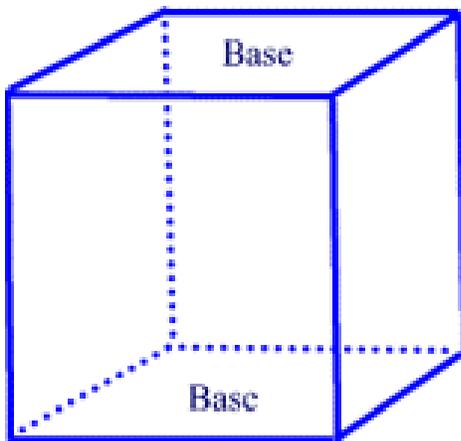
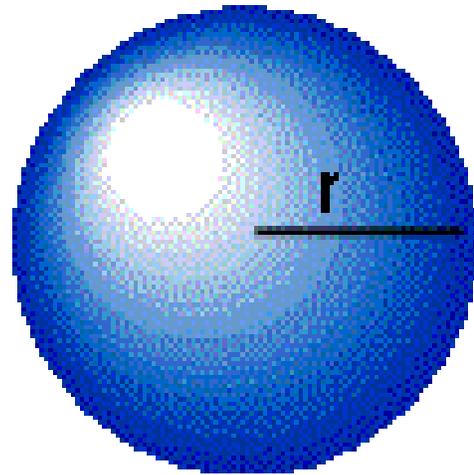
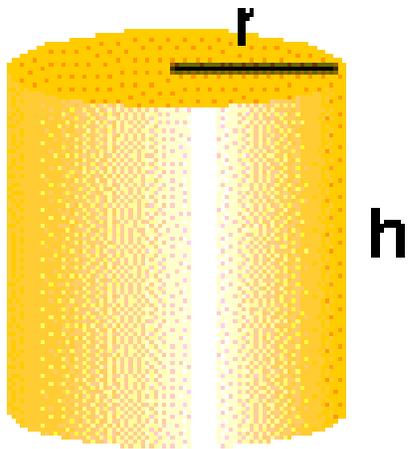
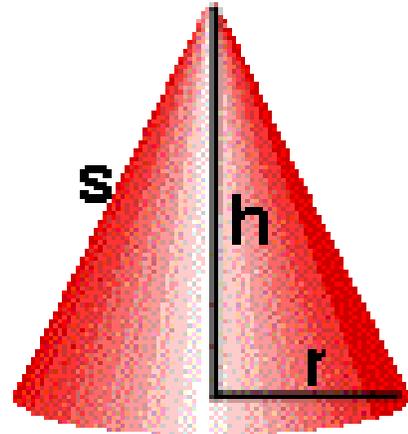
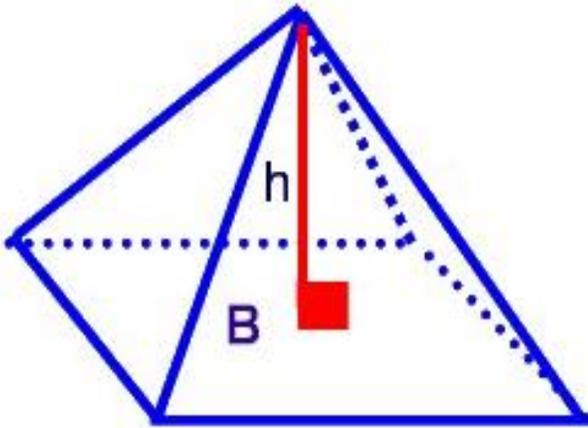
For more information about this material and the book which it supports, *Activators: Classroom Strategies for Engaging Middle and High School Students*, please visit <http://www.engagingschools.org/activators>.

***Activators: Classroom Strategies for Engaging Middle and High School Students***

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**Card Sorts: Math: Geometry (Volume and Surface Areas of Geometric Solids)**

**Suggested Directions:** Match each picture of a geometric solid with the correct name, volume and surface area formulas.



Rectangular Prism

Cylinder

Rectangular Pyramid

Sphere

Cone

$$\text{Volume} = lwh$$

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$$\text{Volume} = \pi r^2 h$$

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$$\text{Volume} = \frac{1}{3}bh$$

$b = \text{area}, h = \text{height}$

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$$\text{Volume} = \frac{4}{3}\pi r^3$$

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$$\text{Volume} = \frac{1}{3}\pi r^2 h$$

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$$\text{Surface Area} = 2lh + 2hw + 2lw$$

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$$\text{Surface Area} = 2\pi rh + 2\pi r^2$$

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$$\text{Surface Area} = b + \frac{1}{2}(ps)$$

p = perimeter of base

s = Slant height

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$$\text{Surface Area} = 4\pi r^2$$

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$$\text{Surface Area} = s\pi r + \pi r^2$$

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**Card Sorts: Science: Biology (Cell Organelles)**

**Suggested Directions:** Match each cell organelle structure with its function and city analogy.

**Cell Membrane**

**Cell Wall**

**Endoplasmic  
Reticulum**

**Golgi Bodies**

**Mitochondria**

**Nucleus**

<p>Allows the cell to change shape and controls what goes into and out of the cell.</p>	<p>Gives plant cells extra support and protection.</p>
<p>Transportation route for proteins.</p>	<p>Packages, labels and ships proteins out of the cell.</p>
<p>Produces energy for the cell; site of nuclear respiration.</p>	<p>Command center. Regulates DNA and RNA actions.</p>

City Border

City Wall

Road System

Post Office

Energy Plant

City Hall

**Card Sorts: Geography: (Geography Terminology)**

**Suggested Directions:** In small groups, discuss and match the term card with the correct definition and the example data cards.

**Term Cards**

Gross Domestic Product (GDP)	Per Capita GDP
Urban Population	Human Development Index (HDI)
Literacy Rate	Life Expectancy

## Definition Cards

The value of all goods and services produced in a country in a given year. A statistic used to measure or compare a country's wealth.

The value of all goods and services produced in a given year divided by the total population. This statistic is used to measure how economically productive a country is and it is sometimes used to measure a country's standard of living.

The percentage of the population living in cities.

A statistic that combines a country's life expectancy, education, and income data to rank human "well-being" or quality of life on a scale of 0 to 1.

The percentage of the population that can read and write. This statistic is often used to measure the education rates in a given area. (When two numbers are given the first represents the literacy rate for males and the second represents the literacy rate for females.)

The average number of years a person born in a given country is expected to live. (When two numbers are given the first represents the life expectancy for males and the second represents the life expectancy for females.)

Data Cards

China \$12.38 trillion  
Canada \$1.446 trillion  
El Salvador \$45.98 billion

Japan \$36,200  
Botswana \$16,800  
Haiti \$1,300

Iceland 93%  
Peru 77%  
Egypt 43%

South Korea .909  
Ukraine .740  
Sierra Leone .359

Italy 99/98  
Columbia 90/91  
Niger 43/15

Sweden 79/84  
India 63/65  
Somalia 49/52

**Card Sorts: English Language Arts: Vocabulary (Latin Word Roots)**

**Suggested Directions:** In pairs or trios, have students match up to six word roots and their meanings and then brainstorm a list of words they know that contain the word roots.

-ast(er)

star

-audi-

hear

-auto-

self

-bene-

good

-bio-

life

Card Sorts: English Language Arts: Vocabulary (Latin Word Roots)

-chrono-

time

-dict-

say

-duc-

lead, make

-gen-

give birth

-geo-

earth

Card Sorts: English Language Arts: Vocabulary (Latin Word Roots)

-graph-

write

-jur-, -jus-

law

-log-, -logue-

thought

-luc-

light

-man(u)-

hand

Card Sorts: English Language Arts: Vocabulary (Latin Word Roots)

-phon-

sound

-photo-

light

-port-

carry

-qui(t)-

quiet, rest

-scrib-,  
-script-

write

Card Sorts: English Language Arts: Vocabulary (Latin Word Roots)

-sens-, -sent-	feel
-tele-	far off
-terr-	earth
-vac-	empty
-vid-, -vis-	see

**Card Sorts: World Languages: Spanish (Thematic Vocabulary)**

**Suggested Directions:** Sort vocabulary and verbs according to themes. Then take turns forming sentences using the words from each theme.

restaurante

pan

ensalada

comer

carne

pescado

calor

frio

sol

fresco

hacer

viento

abrigo

falda

camiseta

nuevo(s)/a

llevar

zapato

## Card Sorts: Emotions

**Suggested Directions:** Give each group member a turn to sort cards and share aloud while sorting how they often feel, sometimes feel, and rarely feel about (subject area). Debrief with whole-group.  
Wave around: *“One way I often feel or sometimes feel about (subject area) is \_\_\_\_\_.”*

HOPEFUL	TENSE
ALERT	THREATENED
RELAXED	HOSTILE
DISMAYED	AMUSED
SAD	ACCEPTED
LONELY	INCLUDED

Card Sorts: Emotions

FOCUSED

UNSAFE

CLEAR

STUCK

SHOCKED

SATISFIED

UNCERTAIN

PROUD

DEFEATED

FRIENDLY

DEPRESSED

CALM

Card Sorts: Emotions

EXCITED

UPSET

STRETCHED

ANGRY

PUZZLED

RELIEVED

SKEPTICAL

ENERGIZED

REJECTED

SECURE

AFRAID

LOVED

## Card Sorts: Group Behaviors

**Suggested Directions:** Sort the Group Behaviors Cards that add and subtract from the group. Then sort the behaviors in order from those you feel are most helpful to those you feel are most harmful to a group.

<p><b>Problem Solving:</b></p> <p>Asking questions, offering ideas, proposing next steps, experimenting, respectfully identifying off-track behaviors</p>	<p><b>Dominating:</b></p> <p>Telling others what to do, insisting my ideas are better than others', dominating the spotlight, and taking all of the credit</p>
<p><b>Organizing/Coordinating:</b></p> <p>Keeping the group on track, focusing on goals, monitoring resources, suggesting timelines, proposing fair division of the workload</p>	<p><b>Distracting:</b></p> <p>Talking about everything except the task at hand, fidgeting, making noises, telling jokes, calling attention to myself and others</p>
<p><b>Seeking/Questioning:</b></p> <p>Identifying what information and resources are needed, doing research, connecting different ideas, asking related questions, offering perspectives to invite participation and thinking</p>	<p><b>Blocking:</b></p> <p>Rarely offering an idea, often finding flaws in others' ideas, disagreeing without listening carefully, playing the devil's advocate long after it's useful</p>
<p><b>Encouraging:</b></p> <p>Encouraging everyone's participation and thinking, praising specific efforts, staying positive and supportive</p>	<p><b>Withdrawing:</b></p> <p>Being consistently silent or out of the loop, not sharing ideas, not doing a fair share of the work, drifting along</p>
<p><b>Clarifying/Summarizing:</b></p> <p>Checking the groups' understanding, clearing up confusion, offering summaries</p>	<p><b>Doom and Gloom:</b></p> <p>Expecting the group to fail, claiming people's ideas won't work and that the ideas are bad, spreading a sour mood</p>