Gold Seal:

Copernicus Education Gateway

Author(s): Ada Grabowski			*Lesson Title: Affinity Diagram: Body Systems*			
Grade Span			*ICLE Application Model*			
K-4	*5-8*	*9-12* *X*	*A*	*B*	*C* *X*	*D*

Instructional Focus:

Basic Concepts and Knowledge: Students develop an understanding of scientific concepts using facts, theories, principles and models.
Underlying Concepts and Processes: Students recognize patterns and processes making connections in terms of systems, subsystems that explain interrelationships of the natural and designed world.

Performance Task

BACKGROUND FOR THE TEACHER: The affinity diagram is a tool used to gather a lot of ideas creatively and then systematically organize the ideas into natural categories. The affinity is a quieter, more reflective, more contemplative instructional strategy than brainstorming. You will need large pieces of butcher paper or flip chart paper, markers, and self-stick notes for each group of students.

PURPOSE: Groups of students will create affinity diagrams as a culminating activity focused on the parts and structures of the systems of the human body. This lesson assumes that considerable direct instruction has occurred on the systems of the body.

PROCEDURE:

Step #1: Explain the purpose of the affinity diagram. Make a transparency of the attached affinity diagram to use in the explanation to the class.

Step #2: Divide the class into groups of no more than five students per group. Give each group of students a package of self-stick notes and one large piece of flip chart paper.

Step #3: Instruct the students to individually brainstorm as many structures and/or body parts as they can think of without referring to any resources. The students are to write each structure/part on one self-stick note. Continue to write structures/parts on individual sticky notes until the designated time has expired (5-7 minutes).

Step #4: Students are then instructed to work as a group and divide the sticky notes into natural categories which will be the various systems of the body. No talking during this part of the activity: everybody attempts to re-arrange the ideas into the appropriate system.

Step #5: Continue the process until all of the self-stick notes completed by the students in each group are under a broad category. This takes time, usually 20 to 30 minutes.

Step #6: The groups must determine the category titles that will be the systems of the body. Encourage students to check their work for accuracy.

Step #7: One student from the group reports the affinity diagram to the rest of the class. The class members and teachers are invited to check for accuracy. The completed diagrams should be posted in the room or hallway.

ICLE Essential Skills

Identify and understand the structure and parts that comprise the systems and regions of the human body. (s2)
Present information in a well-organized fashion that will be clear to the target audience. (ela11)
Understand and use graphs, charts, and visuals to enhance informational writing and oral presentations. (ela29)

Scoring Guide

3 Points = The students use brainstorming and cooperation to generate a complete affinity diagram with all systems of the body represented. The structures and parts of the body under each system are all accurately placed. As students work on the task, they make necessary modifications to their diagram. Students demonstrate an understanding of the systems of the body and components of those systems. The students work cooperatively, with all members contributing equally to the effort.

2 Points = The students use brainstorming and cooperation to generate to an affinity diagram with most, but not all of the systems represented. Students demonstrate an understanding of systems but lack the complete accuracy needed to place all of the body parts and systems in the correct category. The students work cooperatively, but not all members contribute equally to the effort.

1 Point = The students have difficulty brainstorming and develop only a few categories of the body systems. The students do not have the basic knowledge needed to complete the affinity diagram. Their conversation as a group is not productive. There is little evidence of group effort on the task. The students tend to work independently rather than as a group.

NOTE: The scoring guide should not be translated into individual student's grades because this is a group activity. Rather, the guide should help the teacher to determine which groups need more focused instruction. The students must continue to work on the diagrams until they are complete and accurate, a 3 point score.

Keywords

English Language Arts	Mathematics	Science
Reading	**Algebra**	**Earth Science**
Writing **Categorizing** **Organization**	**Geometry**	**Life Science** **Body Systems** **Human Body** **Classification**
Communications **Brainstorming**	**Statistics**	**Chemistry**
Literature	**Calculus**	**Physics**
Other **Affinity Diagram**	**Trigonometry**	**Other**
	Other	

Picture, Chart, or Graph file name(s):

AFFINITY DIAGRAM
Body Systems
Titled Categories

DIRECTIONS: Individually brainstorm as many body parts and structures as you can remember from previous lessons. Write each one on one self-stick note. Continue to generate ideas (one per note) until time is called. Then, as a group, begin to organize the individual notes into broad categories. Each category should be a different system of the body that you will write in the boxes. Once all notes appear under a category, check your work for accuracy. You may need to add more boxes and lines to accommodate all the systems of the body.