5th Grade Building Academic Vocabulary

ACADEMIC VOCABULARY

Dear Educators,

In response to the Genesee County Superintendents' inquiry about modifying current efforts toward raising student achievement, the Genesee Intermediate School District (GISD) Office of Education and Learning is implementing the Building Academic Vocabulary Project.

This project is based on research by Dr. Robert Marzano (2005) and described in depth in his book *Building Academic Vocabulary.* In his book he says,

> *Teaching specific terms in a specific way is probably the strongest action a teacher can take to ensure that students have the academic background knowledge they need to understand the content they will encounter in school. When all the teachers in a school focus on the same academic vocabulary and teach it in the same way, the school has a powerful comprehensive approach. When all the teachers in a district embrace and use the approach, it becomes even more powerful.*

Through his research, Marzano found that "one of the most crucial services that teachers can provide, particularly for students who do not come from academically advantaged backgrounds, is systematic instruction in important academic terms". He developed a systematic, six step process for teaching vocabulary.

 In *Building Academic Vocabulary* a list of 7,923 terms across 11 subject areas are offered as a starting point. This was one of two primary resources used in compiling the list of academic vocabulary for each grade level. The second primary resource was the State of Michigan Grade Level Content Expectations (GLCEs). The two lists were compared and divided into two specific categories: Critically Important and Instructionally Important.

Critically Important words are terms that are crucial or key to the understanding of a given subject area and in most cases are language found on the MEAP and MME. Instructionally Important words are terms used by teachers and recognized by students, but do not require focused attention or an in-depth understanding by students.

The hope of the Education and Learning Department is that teachers will use these lists as a starting point for teaching students academic vocabulary. We have included Marzano's 6 step process for reference and will continue to develop additional tools and resources that can be used to teach students academic vocabulary.

Sincerely,

The Office of Education and Learning, Genesee Intermediate School District

Six Step Process for Building Academic Vocabulary—Dr. Robert Marzano

STEP ONE: The teacher will give a description, explanation, or example of the new term.

- o   Provide learners information about the term
- o   Determine what the learner already knows about the term.
- o   Ask learners to share what they already know as a means of monitoring misconceptions.
- o   Ask learners to share what they already know to use this knowledge as a foundation for more learning.
- o   Utilize examples, descriptions, but not definitions. Definitions are not a recommended method for vocabulary instruction as they do not provide learners an informal, natural way to learn new vocabulary.
- o   Instruct learning of proper noun terms through identifying characteristics of the proper noun.

STEP TWO: The teacher will ask the learner to give a description, explanation, or example of the new term in his/her own words.

- o   Remind learners to not copy, but use their own words.
- o   Monitor students to determine if any confusion exists.
- o   Provide more descriptions, explanations, or examples if necessary.
- o   Request that students record these in the vocabulary notebook. These notebooks can travel with the learner as he/she moves through each grade level and become a compilation of vocabulary terms mastered.

STEP THREE: The teacher will ask the learner to draw a picture, symbol, or locate a graphic to represent the new term.

- o   Provide learners a nonlinguistic method of vocabulary mastery.
- o   Share examples of other learners' drawings or allow students to work in teams to help those who complain that they cannot draw.
- o   Teach the concept of speed drawing for those who labor too long over their work.
- o   Ask learner to share their work.
- o   Use graphics from magazines or the internet.
- o   Illustration terms through symbols, drawing the actual term, illustration with a cartoon, or drawing an example of the term should be encouraged.

STEP FOUR: The learner will participate in activities that provide more knowledge of the words in their vocabulary notebooks. (For notebook and academic notebook worksheet go to: http://www.jc-schools.net/tutorials/vocab/notebook.htm) (Teacher Led)

- o   Students continually reexamine their understanding of a given term
- o   Activities should be planned that engage students explicitly in the focused review of targeted terms.
- o   Provide opportunities to add to, or revise, the entry for the term in their vocabulary notebooks

STEP FIVE: The learner will discuss the term with other learners. (Teacher Guided) (Student Led)

- o   Interacting with other people about what we are learning deepens the understanding of everyone involved
- o   Teacher provides a structure for the students to have informal and unstructured discussions
- o   Major goal is to encourage students to help each other identify and clear up misconceptions and confusions.
- o   Discussing the terms with their peers helps them to detect their errors and correct their work.

 Pair-Share Strategy:

- o   THINK: Allow think time for learners to review their own descriptions and images of the terms.
- o   PAIR: Put learners in pairs to discuss their descriptions, images, and any new info related to the terms.
- o   SHARE: Provide opportunities for groups to share aloud and discuss conceptions and misconceptions.
- o   Monitor as learners help each other identify and clear up confusions about new terms.

STEP SIX: The learner will participate in games that provide more reinforcement of the new term. A variety of games are available at http://www.jc-schools.net/tutorials/vocab/notebook.htm PowerPoint Games, Word Game Boards, Excel Games, WORDO, Twister, Fly Swat.

- o   Walk around the room and check their work when learners are working on their vocabulary notebooks
- o   Check the notebooks to evaluate accuracy.
- o   Listen for misconceptions when learners are playing games/activities.
- o   Provide an opportunity for learners to work together.

Fifth Grade English Language Arts

Critically Important:

advertising	facial expressions	position piece
antecedents	global theme	principles
anticlimax	historical fiction	science fiction
climax	inflections	symbol
editorials	metaphors	synthesizing
electronic resources	mystery	tall tales
exaggeration	narrator	universal truth
experiments	paraphrase	

Instructionally Important:

atlases	shaping opinions	voice modulations
misspeak	style	
multisyllabic	substantive questions	

Fifth Grade Mathematics

Critically Important:

angle pairs formed on a
    line
angles of a triangle
axes (x, y)
billion (place value)
coordinate grid
coordinates
cube number
cubic unit
degree (angle
    measurement)

divisibility
equivalent ratios
exponent
exponential notation
least common
    denominator
line graph
ordered pair
origin
percentage
power

prime factorization
quantity
ratio
scale
thousandths
    (place value)
turn (e.g., 1/4, 1/2, 3/4,
    full)
unknown
variable
volume

Instructionally Important:

complementary angles
conversion
convert
cubic centimeter (cm^3)
cubic meters (m^3)

cubic yards (yd^3)
exterior triangle angles
hundred million
    (place value)
interior triangle angles

quadrants
supplementary angles
ten million (place value)
vertical angles

Fifth Grade Science

Unit 1 – Measuring Changes in Motion

Critically Important:

acceleration	force	magnetic repulsion
applied force	force strength	mass
balanced forces	friction	Newton's laws
change of direction	graph	non-zero net force
change of motion	gravitational force	pulley
change of speed	inertia	relative position
constant speed	kinetic energy	speed
deceleration	lever	unbalanced force
direction of motion	magnetic attraction	zero net force

Instructionally Important:

inclined plane	mechanical motion	spring scale
magnitude	simple machine	velocity

Fifth Grade Science

Unit 2 – Animal Systems

Critically Important:

circulatory	muscular	sperm
digestive	nervous	survival
egg	physical traits	systems
elimination	reproductive	transport
energy	respiratory	
excretory	skeletal	

Instructionally Important:

absorption	response
arteries	sensory nerves
behavioral characteristics	small intestine
brain	spinal cord
esophagus	stimulus
feces	stomach
heart	support
kidneys	tendons
large intestine	testes
liver	urethra
Motor nerves	urine
movement	uterus
muscles	veins
ovaries	

Fifth Grade Science

Unit 3 – Evolution and Traits of Organisms

Critically Important:

acquired traits	genetic relatedness	learned behavior
adaptation	habit	natural selection
anatomical features	heredity	nocturnal
catastrophic events	inherited traits	vertebrate
environmental factors	instinct	
fossil	invertebrate	

Instructionally Important:

aquatic	flowering	terrestrial
cold-blooded	internal structure	warm-blooded
external structure	non-flowering	

Fifth Grade Science

Unit 4 - Position and Motion of Objects in the Sky

Critically Important:

asteroids	gravity	seasons
axis	lunar	solar
comets	phases	solar system
constellations	planet	stars
dwarf planet	revolution	tides
eclipse	rotation	tilt

Instructionally Important:

celestial	Mars	satellite
circular	Mercury	Saturn
elliptical	model	Uranus
Jupiter	Neptune	Venus
latitude	North Star	

Fifth Grade Social Studies—General History

Critically Important:

cause and effect	colonization	ethnic diversity
colonial government	Columbian Exchange	revolution
colonial self-government	cultural differences	settlement patterns

Instructionally Important:

conflict	right of revolution
generalization	secondary source
human environment interaction	settlement
imperialism	slavery
informational text	staple crops
migration	three worlds
military advantages and disadvantages	triangular trade
primary source	turning point
region	

Fifth Grade Social Studies—US History

Critically Important:

Anti-Federalists	Constitutional	Federalists
Articles of Confederation	Convention	Framers

Instructionally Important:

federalism	patriot
loyalists	Royal Government

Fifth Grade Social Studies—Geography

Critically Important:

family structures

Instructionally Important:

cultural diffusion	perspective
desert	regional differences

Fifth Grade Social Studies—Civics

Critically Important:

consent of governed

Declaration of Independence

government by consent

liberty

limited government

political developments

representative democracy

representative government

role of religion

self government

sovereignty

tyranny

unalienable rights

Instructionally Important:

amendment

federalism

political institutions

treaty

Fifth Grade Social Studies—Economics

Critically Important:

economic development   labor forces

Instructionally Important:

currencies
diversified economy
trade policies

Resources

Marzano, Robert, and Debra Pickering. *Building Academic Vocabulary: Teacher*. Association for Supervision and Curriculum Development, 2005. Print.

Marzano, Robert. *Building Background Knowledge for Academic Achievement*. Association for Supervision and Curriculum Development, 2004. Print.

Michigan Department of Education Grade Level Content Expectations. http://www.michigan.gov/mde/0,1607,7-140-28753_33232---,00.html

Michigan Department of Education Science Companion Documents. http://www.michigan.gov/mde/0,1607,7-140-28753_38684_28760_49215---,00.html

Michigan Citizenship Collaborative Curriculum. www.micitizenshipcurriculum.org

MCrel 2004 –Midcontinent Research for Education and Learning

MDE with Michigan Council of Teachers of Mathematics vocabulary list – www.mictm.org – membership only section - K - 8

Genesee County Mathematics Curriculum Guide's vocabulary listings K – 12 GLCEs and HSCEs

Vocabulary Websites

http://jc-schools.net/tutorials/vocab/ (Vocabulary)

http://jc-schools.net/tutorials/vocab/ppt-vocab.html (PowerPoint games)

http://jc-schools.net/tutorials/PPT-games/ (PowerPoint games)

http://jc-schools.net/tutorials/gameboard.htm (Ready made games and game boards)

http://www.u-46.org/roadmap/dyncat.cfm?catid=246 (Overview, lesson design sheet, word lists, examples…)

http://sde.state.ok.us/curriculum/BAV/default.html (Oklahoma State Department of Education—word lists, web links to other resources, PowerPoints, etc.)

http://jc-schools.net/tutorials/vocab/excel-vocab.html (Excel games)

http://literacytoolbelt.tripod.com/The%20Fab%20Five/The%20Fab%20Five%20Power%20Points.htm (Vocabulary Information)

http://www.pppst.com/ (PowerPoints that can be used and/or adapted. Listed by subject.)

http://teach.fcps.net/trt14/Power%20Point%20Games/power_point_games.htm (Games, templates, and instruction for games)

http://projects.coe.uga.edu/lrieber/wwild/search/PPT-search-results.asp (PowerPoint games)

http://innovativocab.wikispaces.com/Building+Academic+Vocabulary (Six step process, Preliminary Report on Building Academic Vocabulary, Process for Improving Instruction in Vocabulary, Academic Vocabulary—Six Steps Info.)

http://www.kirkwoodschools.org/keysor/staff/vocabulary/ (General Information)

http://www.wordnik.com/ (Comprehensive dictionary. Need to sign up for a free account.)

http://www.vocabulary.com/ (Vocabulary resources)

http://people.uncw.edu/ertzbergerj/ppt_games.html (PowerPoint games and game templates)

http://facstaff.uww.edu/jonesd/games/ (PowerPoint games—easy to assemble educational games using technology)

http://www.netxv.net/esc/technology/InstructionalTechnology/templates/powerpoint.htm
(PowerPoint game templates that you can download)

http://teach.fcps.net/trt10/PowerPoint.htm (PowerPoint Activities)

http://www.getworksheets.com/samples/powerpoint/games/ (PowerPoint Classroom
Game Templates)

http://www.elainefitzgerald.com/gametemplates.htm (PowerPoint game templates)

http://it.coe.uga.edu/wwild/pptgames/creating.htm (PowerPoint templates)

http://www.hardin.k12.ky.us/res_techn/sbjarea/math/MATHJeopardy.htm   (Math
Jeopardy Games)

http://young.springdaleschools.org/WebsitesTeachersJeopardy.htm (Jeopardy Game
Websites)

http://www.isd12.org/gle/Jeopardy/Games.htm (PowerPoint Jeopardy Games created
by 5th graders)

http://www.elainefitzgerald.com/powerpoint.htm (PowerPoint Files)

http://www.littlewoodscasino.com/education-resources/power-point-games.htm
(Educational PowerPoint Games)

http://www.googlesyndicatedsearch.com/u/fcrr?q=vocabulary&domains=www.fcrr.org&s
itesearch=www.fcrr.org (Florida Center for Reading Research—Lots of information on
Vocabulary)

http://vocabulary.co.il/blog/learning_vocabulary/category/building-vocabulary-skills/
(Vocabulary Building Games)

http://www.murray.k12.ga.us/teacher/kara%20leonard/TeacherTools.htm   (click on
Game Templates link)

http://www.kindergarten-lessons.com/teach-math-vocabulary.html (Ideas to teach math
vocabulary to kindergarten and preschool children)

http://www.hardin.k12.ky.us/res_techn/countyJeopardygames.htm (Jeopardy games in
all content areas)

http://www.lessonplanet.com/search?grade=all&keywords=vocabulary&media=lesson&r
ating=3&search_type=related (Vocabulary Lessons)

http://www.vickiblackwell.com/ppttemplates.html (PowerPoint templates)

http://www.eslprintables.com/buscador/buscarppt.asp?eje=30&page=2&nivel=any&age=0&tipo=any&contents=VOCABULARY&orderby=#thetop (Vocabulary PowerPoints, worksheets, and exercises)

http://www.burlesonisd.net/it/resources/wordpress/?cat=46 (Teacher templates and games)

http://www.time4learning.com/readingpyramid/vocabulary.htm (Building Vocabulary Skills--Games and Activities)

On-Line Dictionary Websites

http://www.google.com/landing/searchtips/#dictionary

http://www.merriam-webster.com/

http://dictionary.reference.com/

http://www.thefreedictionary.com/

http://www.yourdictionary.com/

http://dictionary.cambridge.org/

http://www.websters-online-dictionary.org/

http://kids.yahoo.com/reference/dictionary/english

http://www.encyclopedia.com

http://www.visuwords.com

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