Academic Language of Science

TEXT/TALK FEATURES

- *complex sentence structures made up of multiple embedded clauses*
- highly specific vocabulary that conveys scientific concepts and understandings
- if/then sentences
- use of the conditional tense (what could/might happen)
- active explanations and descriptions of phenomena
- use of metaphors—"a comet is like a . . ."; "think of a comet as a . . . "
- high level of visual support—diagrams, photographs, illustrations

MAJOR TEXT STRUCTURES/FEATURES OF TALK

definition; description/enumeration; cause/effect; chronological/sequential; comparison/contrast; problem/solution

SUBJECT MATTER MATTER–SPECIFIC VOCABULARY

e.g., *omnivore, vertebrae, lava, mineral, stamen, thorax, molecule, electron, carbohydrate, amphibian*

WORDS USED IN NEW WAYS

e.g., *cell, space, cycle, crust, matter, front (weather), property*

COGNATES (SPANISH/ENGLISH)

e.g., *adaptación/adaptation; anfibio/amphibian; bacterias/bacteria; camuflaje/camouflage; dióxido de carbono/carbon dioxide*

PHRASES/LEXICAL BUNDLES BUNDLES (WORDS THAT OFTEN CO-OCCUR; COMMON SEQUENCES OF WORDS)

e.g., *food chain, water cycle, cloud formation; the nature of ___; in the form of ___; the way in which ___; as a result of ___; the size/shape of the ___; as shown in Figure _____*

COMMON TRANSITION WORDS; LOGICAL CONNECTORS

unless; although; finally; because; also; consequently, therefore

COMMON COMMUNICATIVE FUNCTIONS

name; classify/categorize; ask and answer questions; report; describe; explain; predict; hypothesize; defend

HELPFUL READING/WRITING SKILLS AND STRATEGIES

visualize what is read; find information; use of text features (bold, italics); distinguish between main idea and supporting details; draw inferences; use root words and affixes to discover word meaning (hydro, proto, -ose); write summaries; record observations; use graphic organizers to record information; use diagrams to process text

Chart 4.1 Academic Language of Science

Academic Language of Social Studies

TEXT/TALK FEATURES
- complex sentences with independent and dependent clauses; descriptions of related events; causes and effects
- verb plus infinitive (refused to obey, offered to write)
- time references; temporal phrases
- third-person pronouns that refer to actors previously named in the passage (he, she, they)
- causative words

MAJOR TEXT STRUCTURES/FEATURES OF TALK
compare and contrast; generalization-example; enumerative; cause and effect; sequential/chronological; problem-solution

SUBJECT MATTER–SPECIFIC VOCABULARY
e.g., *continent, landform, goods, services, raw material, consumption, patriotism, rebel, boycott, taxes, delegates*

WORDS USED IN NEW WAYS
e.g., *party; capital; assembly; press (as noun); lobby*

COGNATES (SPANISH/ENGLISH)
e.g., *historia/history; extinto/extinct; patriotismo/patriotism; partido/party; estado/state; dinastía/dynasty; nación/nation;* same word, both languages: *colonial; capital; local; global*

PHRASES/LEXICAL BUNDLES
e.g., *at the same time; had the right to; became known as; one of the most; had the right to; as a result of; the fact that the*

COMMON TRANSITION WORDS; LOGICAL CONNECTORS
from that time forward; after the war had begun; furthermore, he thought that; by the nineteenth century; as a result; finally; so; never before

COMMON COMMUNICATIVE FUNCTIONS
explain; describe; define; justify; give examples; sequence; compare; answer questions; clarify/restate

HELPFUL READING/WRITING SKILLS AND STRATEGIES
use the resources in textbooks (index, table of contents, glossary, etc.); find the main idea and supporting details; present an oral report; write a cause-and-effect essay; use note-taking strategies; use graphic organizers to record information; conduct research; prepare reports; summarize; paraphrase; use timelines, graphs, maps, and charts

Chart 4.2 Academic Language of Social Studies

Academic Language of Mathematics

TEXT/TALK FEATURES

- conceptually packed
- high density of unique words with specific meanings
- great deal of technical language with precise meanings
- requires multiple readings
- requires a reading rate adjustment because text must be read more slowly than natural language texts
- uses numerous symbols
- many charts and graphs

MAJOR TEXT STRUCTURES AND FEATURES OF TALK

cause and effect; comparisons; logical or chronological sequence

SUBJECT MATTER–SPECIFIC VOCABULARY

e.g., *divisor, denominator, integer, quotient, coefficient, equation, protractor, place value, proper/improper fraction*

WORDS USED IN NEW WAYS

e.g., *table, column, variable, carry, irrational/rational, mean, factor, term, expression, odd, set*

MULTIPLE WAYS OF SAYING THE SAME THING (SYNONYMS)

e.g., *add, plus, combine, and, sum, increased by, total; subtract from, decreased by, less, minus, differ, less than, have left*

COGNATES (SPANISH/ENGLISH)

e.g., *base/base; centimeter/centímetro; column/columna; concept/concepto; number/número; ordinal/ordinal; group/grupo; identify/identificar; sequence/secuencia; angle/ángulo; circle/círculo; difference/diferencia; divide/dividir; line/línea; multiply/multiplicar*

PHRASES WITH SPECIFIC MEANINGS; LEXICAL BUNDLES

e.g., *least common multiple, standard deviation, square root, a quarter of, divided by vs. divided into, as much as, common factor, the size of the, greater than or equal to, not more than*

TRANSITION WORDS; LOGICAL CONNECTORS

if . . . then, if and only if, because, that is, for example, such that, but, consequently, either

COMMON COMMUNICATIVE FUNCTIONS

following directions in a sequence, show, tell, ask and answer factual questions, predict, explain, justify, hypothesize, conjecture

HELPFUL READING/WRITING SKILLS AND STRATEGIES

adjust reading rate, reread difficult text, confirmation checks/summarize as you go, take notes while reading, use graphs, number lines, and charts to complement the understanding of text

Chart 4.3 Academic Language of Mathematics