Considerations in the Integration of subject content instruction.

The work of James Cummins (1981) is very helpful in explaining some of the strategies found in subject content instruction. In second language proficiency the degree of contextual support available for expressing or comprehending through a language assists the student in understanding. He describes "context-embedded" language, which is supported by a wide range of clues, and "context-reduced" language, which has very little extra support, so that everything depends on the words themselves.

A. Cognitively undemanding and context-embedded (embedded in context that helps to make the meaning clear)
   TPR
   demonstrations illustrations
   following directions
   art music PE
   face to face conversations
   simple games

B. Cognitively undemanding and context-reduced (little context provided)
   Telephone conversation
   note on a refrigerator
   written directions (without diagrams or examples)

C. Cognitively demanding and context-embedded
   Mathematics computations
   Science experiments
   Social studies projects (map activities, etc.)

D. Cognitively demanding and context-reduced.
   Subject-content explanation (without diagrams or examples)
   mathematics word problems (without illustrations)
   explanation of new abstract concepts
   standardized testing

Implications for Teaching

Make New Concepts Less Language-Dependent

1. Make increased use of visuals and realia.
2. Provide the hand-on involvement of learners.
3. Increase the number and vividness of examples.
4. Establish a clear, meaningful context.
5. Draw on learners' past experience and previous learning from the curriculum.
6. Make sure of rephrasing and repetition.

Make Language Tasks More Cognitively Engaging

1. Relate second language lessons to the concepts in the general elementary or middle school curriculum.
2. Make use of processes developed in the general curriculum to engage learners at higher cognitive levels: classifying, categorizing, graphing, estimating, predicting, comparing, sequencing, identifying patterns.
3. Create opportunities for learners to practice new language in communicative and problem solving situations, including games, rather than using imitations and drill.