Making a classroom map is a high-interest way for children to grasp and appreciate the <u>idea</u> of representation. They have to "get" this concept before abstract representations such as printed letters and numbers make sense.

Then, after thinking and talking about spatial shapes ("round countries and skinny countries, square states and states with panhandles"), sequences ("the blue circle is in the middle"), directions ("that wall is east"), etc., we might quietly think about a really radical idea:

Reading is a geographic skill (?!)

- **1.** Letters are spatial shapes. O I N P L S d \mathcal{M} Round or square, tall or wide, simple or complex, with or without "panhandles".
- 2. Direction is important.
 It's the only difference between some pairs of letters.

 b d p q u n
- 3. Words are spatial sequences.

 Meaning depends not just on the letters but on the order in which they are arranged.

 (TAR is not the same as RAT, either as a noun or a verb!)
- **4.** Phrases are spatial associations. In the box They are groups of words that occur close to each other, in a precise spatial order.
- 5. Distance is important in a sentence.

 Nearby words are more related than distant ones "I'm walking between pine trees" means I'm walking and the trees are pine, not I'm a pine and the trees are walking.
- **6.** Texts can be diagrammed as spatial hierarchies.

 Smaller clauses are nested inside larger sentences, sentences inside paragraphs, paragraphs inside sections. Although this idea is not taught explicitly in first grade, we can do things in first grade that make the idea easier to teach later.
- 7. Page layout is a kind of "geographical planning".

 Many layout devices, such as paragraph spacing, indents, callouts, and bulleted lists depend on the recognition of geographical position to convey part of the meaning.

Fact: when several high poverty K-1 classrooms in Harlem took a chance and did two carefully planned geography lessons every week, average reading scores went up from the mid 50s in fall to the low 90s in late spring.

Fact: Proving cause-and-effect in education is extremely difficult. We cannot say for certain that geography lessons caused reading scores to go up. There is, however, no evidence that geography lessons hurt reading scores!

Fact: Focusing mainly on reading in primary school may raise reading scores at the expense of other kinds of learning.

Fact: "Reading is how we teach ourselves other things" is an intuitively plausible assertion that reveals a profound ignorance of how human brains actually learn. Do as we did in Harlem - obey the Hippocratic Oath - "Above all, do no harm."