

## Nature versus Nurture

Links to the novel, *Jacob Have I Loved*

*If you will be integrating the unit, Twin Traits with the Beacon Learning Center unit, Jacob Have I Loved, then consider using these questions to provide additional connections between science and language arts.*

### Day 2 of the Science unit, Twin Traits

Ask students to list in their journals the dominant and recessive genes that Sara Louise and Caroline have. As they learn more about the characters, they may change and refine this list.

### Day 3 of the unit, Twin Traits

Ask students to write and reflect on the traits that they think Caroline and Sara Louise have inherited from their parents. As they learn more about the characters, they may change and refine this list.

### Day 4

Allow students time to Think-Pair-Share their journal responses. Then, allow time for a group discussion.

### After Days 5-6 of the unit

- Following the reading of all four of the article's sections, break students into groups to explore these ideas. Let them have group time to discuss the questions and then have them chart their answers. Finally, have all groups share their findings.

### Part I

- Like Sharon and Sherry from the "Mysteries of Twins" article, Sara Louise and Caroline different are very different in some ways. What are some of the ways Sharon and Sherry are different? What are some of the ways Sara Louise and Caroline are different?

### Part II

- Like some of the twins that were separated at birth but still had eerie similarities, Sara and Caroline have similarities too. Dig deep! Make two lists exploring how one set of the separated twins are alike; then make a list of how Sara Louise and Caroline are alike. Now, answer this question- Are the similarities statistical anomalies as

mentioned in the book or is there something to the nature side of the controversy?

- In the article, it says, that twins have shared many instances of "uncanny stories of wordless understandings, of moments of grief or joy communicated at a distance without benefit of a phone, by some kind of genetic magnetism." Can you think of any instances where this has occurred between Sara Louise and Caroline?

### Part III

- In this part of the article, the author shares instances where twins reacted differently to different situations. Explain three instances in which the real twins reacted differently to the same situation. Then, explain two-three instances where Sara Louise and Caroline react differently to the same situation.
- In the situation with Victor and Vincent, the boys' future seemed influenced by incidents in their lives. Explain a situation that you think may have influenced a major choice in Sara Louise and Caroline's lives.

### Part IV

- "I would say 75 percent of personality is genetic and 25 percent is environment," says Sherry. "Right down the line." What do you think? What do you think Sara Louise's response would be? Explain why.
- "The first three years of a child's life are so important in terms of whether they become secure or insecure." Hmmm. Interesting quote. Explain it in terms of Sara Louise and Caroline.

### Following days 7-9

- Ask students to imagine how Sara Louise and Caroline would have been different if they had been raised apart. Allow for some discourse on this topic.

After the completion of the science unit:

Ask students to raise any additional questions, concerns or thoughts they may have in light of the study of the novel *Jacob Have I Loved* and Twin Traits. Use Think-Pair-Share or other discussion models to allow students time and opportunity to share their ideas.