

⌘ FIVE ⌘

## NICOLE AND BROOKE

### *Homeschooled Fraternal Twins*

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#### PRIMARY AND SECONDARY ISSUES

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##### *Primary Issues:*

- Sociocultural influences  
on cognitive development
- Twins and sibling  
relationships
- Homeschooling
- Nature versus nurture

##### *Secondary Issues:*

- Attachment
  - Early physical development
  - Personality and temperament
  - Learning styles
  - Friendship
- 

#### CASE

Nicole and Brooke are nine-year-old fraternal twins, but right from the start they were different. Brooke was born first and weighed 7 pounds and 11 ounces. Her father says that she was “pink, alert, and crying. She was ready and on the go. She looked like the Gerber baby.” Due to complications, Nicole was born 10 minutes later. She weighed a little less than 5 pounds, was limp and not breathing. She had an initial Apgar score of 2. If the birth had been a vaginal delivery,

their mother said, "Nicole would have come out first. She was further down. But because it was a caesarean, Brooke popped up first." As Nicole recounts the story, "I couldn't breathe when I was a baby, but Brooke, she could really scream. She was like the loudest baby in the hospital. Mom did a special surgery that made Brooke older, but if they just did the regular . . . then I would have been the oldest."

Nicole was resuscitated and made a quick recovery; her second Apgar was 9. However, Brooke continued to develop physically faster than Nicole. Nicole walked five months later than Brooke, was toilet trained later, and did not develop her first tooth until 17 months of age. The family doctors reassured their parents that both girls were developing normally with no serious problems, in part because Nicole always caught up to Brooke very quickly. Dad points out that although Brooke's motor development was early and steady, when "Nicole started walking, it was like overnight." Similarly, he thought that Nicole could have mastered toilet training earlier, but "she just didn't feel like going." Dad says he sometimes wonders, "If Nicole had come first would we have dealt with them differently?" However, he believes that they "would have treated Brooke as the oldest, regardless of when she came," due to the differences in physical development.

Temperamental differences between the girls were also apparent very early, says Dad. "Nicole seems to be more laid back, but when she wants something, she makes it known. When they were first born, the very next day I went to the hospital. . . . This was like 12 hours after birth, and the nurse came up to me and said, 'Man, she's stubborn' [because she wouldn't take the bottle]. I kinda looked at her and said, 'It's 12 hours?'" However, Nicole's strong nature came through in her refusals to always give in to Brooke in their early play together. As Dad describes, "There'd be eight or nine toys they'd be playing with, and every toy Nicole would pick up, Brooke would take, and Nicole could care less 'cause Brooke had to have every toy. . . . Finally Nicole would pick up something and Brooke would take it. And Nicole would take it back. And Brooke would take it, and Nicole would take it back. In other words, that's the one toy Nicole wanted."

In contrast to Nicole, Mom describes Brooke as "very active, very busy. She's always doing a lot of things at once. . . . Nicole can lay and watch TV for three hours. Brooke could not. She can watch TV, but she's gotta be doing everything else at the same time." Her parents describe her as "driven" to excel in everything she does, and they worry that she is sometimes too hard on herself.

Mom tells her, "I'm afraid you're gonna forget to have your babies, you know she's so busy all the time." Brooke usually completes her work faster than Nicole, but makes mistakes because of her impulsiveness and eagerness to move on. Brooke is also very athletic and enjoys playing sports like basketball with boys. She enjoys the competitive nature of sports and the rough and tumble play of the boys. Her father says that she is "almost like a boy in some ways" and remembers that she actually wanted to wear a bow tie to nursery school. Her mother says Brooke is sometimes "overly honest" with people, saying things before she considers how the other person might react.

Their parents say that Nicole is more meticulous than Brooke and likes to take her time. She is a "deep thinker" who reflects on problems rather than jumping to a solution. Nicole also prefers "frilly things" and likes wearing dresses. "Nicole's strength is she is just so sweet," says Mom. "Kids always like her because she's just so easy to get along with. . . she can be with anybody and she doesn't want to take the lead." Mom worries that Nicole might just "let life pass her by and daydream," or that she will have difficulty separating from Brooke. Nicole describes herself as quiet and shy, pointing out that she only talked to one person on the first day of preschool. Her mother agrees that she is "painfully, painfully shy on certain things and if she's on stage, she freezes." In a recent relay race, Nicole was much slower than other children, not because her physical development was deficient, but because she was worried about other people watching her. Nicole prefers activities where she is not the focus of attention and always looks for ways to help others. Nicole says that "my mom usually gets me things because I don't ask for too much, while Brooke on the other hand, she probably asks for a lot of things." Mom emphasizes that the twins look out for each other and usually insist on splitting everything. "Brooke wanted to buy a ring a couple of weeks ago, but she didn't want to spend the money. So Nicole gave her some of her money to buy the ring."

However, Nicole has a mischievous side that was apparent early on. She would do things to get reactions from Brooke, such as crying out, "Eh!" or snapping the front closure of the stroller on Brooke's side. When Brooke acted startled or cried out, Nicole would giggle. In kindergarten, she again showed herself capable of impressive deception. She came home from kindergarten one day and said, "The school nurse told me I got to lay on the couch today and watch TV 'cause I'm not feeling well." Her mother went to the school the next day, angry because they did not call to tell her Nicole was sick. The school nurse told her she had not seen Nicole the day before. "So I look down

at Nicole and I hear, 'Uh-oh.'" Mom said she realized that Brooke had gone home the day before with broken glasses, and Nicole was trying to bring attention to herself.

Overall, their parents describe the twins as "extremely close. They're each other's best friend." Dad points out that "they'll get on each other's nerves a lot 'cause they spend so much time together." However, they are rarely apart and refuse to sleep in separate rooms although their house has two extra bedrooms. Sometimes, Mom says, they use their differences to help each other out. "Like when they started to wear a bra. Brooke is too busy to figure out the whole bra bit, so she's gotta have Nicole help with that. . . . Even though Nicole is like the younger sister when it comes to certain things, Brooke really needs her." Another time, Brooke forgot to wear her boots to kindergarten, and Nicole shared one of her boots so that each girl went home with one shoe and one boot.

Despite their differences, both girls are conscientious and intelligent. They share an interest in science, although Brooke's strength is in memorizing facts while Nicole likes to do scientific drawings. They both enjoy swimming and briefly took ballet dancing together until they were "thrown out of class" because Brooke kept carrying Nicole around the room. Dad says, "They have interests that are similar, but even in their similarities, they're beginning to look at differences." They used to dress alike, but now Brooke doesn't want to dress the same and complains that Nicole sometimes "copies" her. Nicole shows an interest in sharing clothes with Brooke, but admits that Brooke wants her own clothes.

Brooke says she likes being a twin. "Sometimes when you read books about it . . . you feel happy . . . that it happened to you and everything. It's also a playmate sometimes 'cause you can do all the same things." Nicole says that an advantage of being a twin is that she and Brooke are usually included together in many activities and parties. She describes Brooke as "my first best friend." Recognizing how close the twins were, their parents requested that they be placed in the same classroom in their first years of nursery and elementary school. When they were separated in kindergarten, they found ways to talk to each other through a "milk closet" that connected the two rooms. Brooke or Nicole would go into the room to get the snacks and "wait until the other one would come for her milk." Other students also treated them "as a unit," expecting them to choose each other for activities that required pairing. The strength of their identity as twins is especially striking because the girls

differ so much in their physical appearance. Brooke is taller, with thick curly blond hair and bright, lively blue eyes. She is constantly moving and talking, inquiring about everything she encounters. Nicole is smaller and dark haired, with dark brown eyes that linger and look deeply into the faces of others. She often sits back, quietly observing others, but can surprise you with her memory for details that she takes in.

Nicole and Brooke share a room with their cat, Angel, in their family's four-bedroom house on a quiet suburban street in upstate New York. Their family got Angel and a litter mate, Tabby, when the girls were two years old. Brooke speaks sadly of how Tabby died of FIP within six months. "She wasn't even half a year old when she died . . . that's sad 'cause she was just little. She used to take care of Angel. She used to bathe her and everything." Both girls are fond of Angel although they have different ideas about how she should be treated. Nicole likes to play with Angel because she is "fun." She says that the cat sleeps under her bed but sits on Brooke's bed. Brooke says that Angel is afraid to jump on Nicole's bed because "she is always fussing over the cat." Brooke says that the cat will come to her when she calls it more readily than to anyone else in the family. "She comes over and I usually pet her or something. Nicole would usually pick her up and then [pause] one time she pretends like she was a baby . . . and she grabs a towel and she stuffs Angel in the towel, wraps it around her." Brooke laughs and says, "Angel really didn't like that." Nicole says that she sometimes tells Angel what she is thinking or feeling because "[Angel] can't tell secrets. She might say to me a meow, but no one will understand." The girls would like to have more animals, but their parents have said they must wait until they are older and can take responsibility for them. Meanwhile, they have filled their room with stuffed animals of all kinds.

While Brooke and Nicole both love animals, they often pursue different interests and activities. Both profess a love of television and enjoy watching the Cartoon Network, Disney Channel, and Nickelodeon. Nicole likes a show called *As Told by Ginger*, about youth trying to survive junior high school. She also likes Reggie in *Rocket Power* because "she's kind of like [pause] a leader. . . . She's not really the leader, but she's nice and friendly." Brooke's favorite shows are *Scooby Doo* and *ER*. She can name most of the main characters on *ER* and says that she likes it because "you never know what's going to happen—suspense, drama. And . . . something that's interesting about it. . . . You might even have to watch the other episode to find out what's going to happen." While the girls enjoy many of the same shows, they sometimes argue

over what to watch. Their parents limit television watching during the week, and if the girls can't agree on what to watch, they sometimes ask their parents to make the final choice. As Brooke says, "I don't care what it is. Let's just watch something."

Brooke loves computer games, basketball, and soccer, while Nicole enjoys art and gymnastics. Brooke says that Nicole's "relaxed" manner sometimes makes it hard to play together since she likes more active pursuits and Nicole likes to "daydream." Nicole's favorite games usually involve some type of pretending. She and Brooke sometimes pretend that they are on an adventure in Alaska or Egypt. With friends, they like to make up stories and pretend they are characters in their favorite television shows or movies, such as *Jurassic Park 4* or *As Told by Ginger*. This year, for the first time, Nicole and Brooke also chose different Halloween costumes. Brooke is dressing as a sports hero and Nicole is going as a witch.

Many of the girls' activities are planned by their parents, in part because the family has been homeschooling for the last two years. Both parents work flexible jobs that allow them to make time to teach the girls from home. Dad is a consultant for the state department of education and teaches part-time at a local college. He loves to tell stories about his daughters, enhanced by his animated reenactments of their facial expressions, verbal comments, and gestures. He has the dark hair and eyes characteristic of his Puerto Rican heritage and amuses friends with his detailed stories and ability to deliver humorous tales with a straight face. Since his multiple jobs are demanding, he works energetically and likes to get things right the first time but manages to find time for lunchtime basketball. Mom is a medical researcher who works part-time in a laboratory and provides technical assistance to other research centers. She is a sensitive and caring person who is always looking out for others. Her clients appreciate her meticulous and well-organized approach to solving their problems, and Dad says that it is his wife who also keeps their active household in impeccable order. With her long blond hair and bright blue eyes, she presents a striking visual complement to her husband. Both parents put family needs first when they plan their schedules and activities. They chose a family-oriented neighborhood in which to live and are actively involved in their local church. "We rarely do anything without the girls," says Mom.

Homeschooling allows the girls to spend at least six hours a day with each other and with their mother or father. Nicole says that she felt sad when she went to school because she missed her mother, father, and cat and did not like

some of the “mean ladies” in the lunchroom. She also found school confusing because of rules about where you had to put your coat or foods you couldn’t eat, like bubble gum. She finds homeschooling more comfortable because she does not have to worry about the scary things that happened to her at school, such as having a stomachache on the bus or getting locked out of school after recess. She does remember fun times at school, in particular some art activities with her favorite teacher. But she likes homeschooling better because “I’m not alone, but I’m not that like crowded up with people.” She also likes not “wasting” time riding the bus, and she thinks her mom and dad are “not as strict” as some of her teachers were.

Brooke says that the best thing about homeschooling is she doesn’t have to wait for all the other kids to get done with their work, and they usually get done with school earlier. “When in school, they might just keep throwing work at you ’cause then the buses aren’t going to leave just for you.” She says she still has to wait for Nicole to finish, though. “Sometimes I start like 10, 20 minutes later . . . so to give her a head start, but I always get caught up with her.” Dad admits that when he gives the girls an assignment and checks back “20 minutes, 30 minutes later, Brooke is pretty much fairly done, and Nicole is on the third problem.” But Mom says, “It’s not that Nicole can’t; she’s just busy looking out the window.” In fact, she says when they first started homeschooling, they considered Nicole’s daydreaming tendencies in arranging the desks in their room. “We said, ‘if we catch you looking out the window too much, you’re going against the wall.’”

Mom says that she found “letting go” very difficult when the girls first went to kindergarten and were placed in different classrooms because the school did not believe in putting siblings together. She and her husband both helped out frequently in the kindergarten classrooms and then requested that the girls be put into the same first grade room. The principal resisted, citing research showing negative effects due to sibling competition. However, Dad said, “We know our daughters. They’re not competitive, they are complementary to each other. . . . They have their own distinct individualities; they help each other out more than they compete with each other.” The principal finally allowed them to be placed together for first grade, but said he could not promise the same would happen in later grades. Both parents said they continued to volunteer in the first grade classroom, but found they were usually helping “kids who needed extra help” and not their daughters. They were also concerned that the teachers in the higher grades did not seem to “want

[parents] to volunteer.” They began to consider homeschooling as a serious option after one of their friends decided to homeschool her five sons. On the day after the shootings at Columbine High School, they presented the homeschooling option to Brooke and Nicole, and they agreed that they wanted to try it. Mom admits that initially the “real reason” for homeschooling “was ’cause I wanted them home with me.” However, now both parents believe that the academic advantages of being able to maximize the girls’ potentials by working in a more individualized manner are equally important.

Mom works with the girls two days a week on science, art, reading, and writing, while Dad covers math, geography, and history on the other three days. Dad is also teaching both girls to speak Spanish. The school day usually begins at 7:30 and lasts until 1:30 or 2:00, but Brooke says that Mom and Dad have different approaches. Dad makes them do homework “right after we do school. Our mom’s homework is usually later at night, like after dinner.” They work in a variety of places: the living room, kitchen, Mom’s office, their bedrooms, or even outside. Sometimes they work at the local library or do a “Barnes and Noble day” when they go to the bookstore and spend the day reading books of their own choice. The whole family sometimes takes a field trip to the state museum, an educational center such as a nearby geological park with caves, or a historical site such as a Revolutionary War battlefield. Recently they all accompanied Mom on a business trip to Boston, and Dad and the girls toured the city while their mother worked. Dad enjoys making learning practical and relating it to the real world. He frequently uses Mom’s business trips to prompt the girls’ interest in learning geography.

Their parents use supplemental curricula, which provide packets of materials and activities. One of Brooke’s favorite activities is working on the human body, while Nicole enjoys art and math. Their parents customize their teaching to the girls’ strengths and watch out for their weaknesses. They say that both girls score in the high 90th percentiles on the California Achievement Tests, but they make very different types of mistakes on their tests. Brooke is very good in science and has an exceptional memory, while Nicole excels at math and writing. Dad points out that Brooke can tell you about the functions of every body part and name all the capitals of the 46 countries in Europe. She is fast in getting her work done and eager to move on to the next assignment. Mom says, “Brooke just wants to get it done right now, whereas Nicole will spend the time. In September they were doing a ghost story, and by the end of two weeks I said, ‘Nicole, you got to end that story at some point,’ ’cause she

would just go on and on and on.” Similarly in Spanish, Dad says that “Nicole’s very good, not that she knew Spanish, but she’s much stronger than Brooke because she’ll take her time.” However, he does have to remind Nicole to pay attention to the details. On one recent test, Nicole missed two problems because she didn’t reduce the fractions despite her father’s reminder to do so. “I said, ‘Nicole, you know the stuff, you got the right answer, you just got to remember to put it in the simplest terms.’” Both girls hate to get anything wrong and sometimes plead to retake their tests. They also help each other with their work, so their complementary interests and abilities provide them with additional support. Their major concerns, according to Dad, are to stay equal in their work so that they can continue to work together. “Brooke isn’t the competition. It’s like, Brooke is here [motions at a certain height] so [Nicole] would like to be up here [motions to the same height]. . . . not because she wanted to be better, but because she wanted to be with her.” If Nicole does not do as well as her sister, Brooke encourages her, “Nicole, you can do this!”

Dad uses his knowledge of his daughters to tailor lessons to their interests. When the Olympics were in Australia, he made that the focus of their geography lessons and incorporated koala bears (one of their favorite animals) into it as well. Since both enjoy computer games, he also uses “Carmen Sandiego” as a teaching tool. When they studied the history of Greece, the girls showed an interest in mythology so he expanded their reading of the ancient Greek myths. Mom uses projects in both science and art and says that although the girls help each other out, they usually “each do their own type of thing.” They get a lot of ideas for projects from an enrichment program that the girls attend on Saturdays at a local college. The girls also take part in other afterschool activities, such as 4H, piano lessons, gymnastics for Nicole, and a basketball team for Brooke.

Their parents say that the girls are getting more self-directed as they get older and often check their own work now. They are also more sophisticated, and Mom says that they find a lot of information on their own. “They read the encyclopedias. Sometimes they just sit there and read, and they do a lot on the computer.” She feels that they may soon need more challenge in some subject areas. The parents hired a tutor for art this year because Mom felt that she was not challenging the girls enough. She says that although she thinks she could teach chemistry and Dad could teach physics, they may have to hire tutors for other areas, such as biology.

Although their parents ask them repeatedly if they want to return to the regular school, both girls say that they want to continue homeschooling.

Brooke admits that fourth grade is harder than third grade, but she still likes learning at home. Nicole agrees and says, "I like being with Brooke. . . . If I'm in the regular school, Brooke and I could be in different classes." She wants homeschooling to continue "up to college, and then when we go to college . . . I'm going to go to my dad's college." She admits that her mother's offer to buy her a car if she goes to her husband's college (where the girls would get a tuition discount) is an incentive.

The girls value their close family, but also have friends in several different settings. Nicole says that she plays with several friends in the neighborhood who are her age or a little older. Brooke has one close neighborhood friend, Brianne, but says that most of her friends live several miles away, and she relies on her parents to drive her to their houses. Both girls play with a 10-year-old girl, Karen, who lives down the street, but complain that she can be "bossy." Karen sometimes sets her own rules or just tells them how to play a game. Then both Nicole and Brooke tell her she is not being fair. As Brooke points out, the outcome varies: "Sometimes we get into a fight. Sometimes she just leaves. Sometimes we work things out. Sometimes we just play along maybe." Nicole says that Karen has been getting better and has twice invited them to her pool. However, she says, "the nicer that she gets, but now, it's kind of like she doesn't really spend much time with us." Nicole's "second best friend" after Brooke is Emily, whom she met in first grade. While they no longer attend school together, the girls still visit each other's houses and see each other at parties. Nicole also sees two other first grade friends, Sue Marie and Stacey, and says the only things she misses about her old school are the parties with her friends.

Mom and Dad work with other families who are homeschooling to make sure the girls have many opportunities for play and social activities. Once a week they "switch" with another family that is homeschooling its five boys aged 4, 6, 7, 9, and 10 years. Mom says, "I wanted the girls to be separated at times, so I drop one of the girls off and pick up one of the boys to play with the other girl here." Brooke especially enjoys playing football, basketball, and soccer with the boys, although she says that they "sometimes get into arguments with each other. I just stay out of it then." One of the boys helped her to get over a fear of the basketball that she had developed after she got hit in the nose.

Brooke and Nicole both have friends at their family's "camp" on a lake near a small town in the Catskills. Their family spends much of the summer and frequent weekends during the spring and fall at the camp. The girls enjoy

catching frogs, swimming, playing Spud, and watching movies with the children in two nearby families. One family includes two girls and one boy. Another 12-year-old friend, Andi, lives on the lake during the summer and has invited them to visit at her home on Long Island.

Nicole and Brooke are also close to members of their extended family. Their grandparents (on Dad's side) sometimes visit the family camp, and the girls have visited their grandparents at their home in Puerto Rico. The girls especially enjoy spending weekends with their Aunt Katie in a nearby town. Mom admits that Aunt Katie "dotes" on the girls, frequently treating them to trips to the movies, ice cream, and activities such as miniature golf. The girls emphasize that they really enjoy doing things with their family and feel that they do things equally with both parents and with each other.

As they look toward the future, both girls are considering careers that reflect their talents, interests, and family values. Brooke is planning to be a doctor and notes that she won an award in a science fair in third grade. She also would like to write research books on nature. Nicole says she "wants to be about five or six things. An illustrator, an artist, a veterinarian . . . and someone who works at an animal shelter . . . and a singer, like Britney Spears." She would like to illustrate children's books on animals or adventure, but says she won't settle for just one career. "I'm gonna try to do five of them. But first I'll . . . take a class for veterinarians because that will probably cost the most money and also take the longest. Then I'm probably gonna do the artist, then I'm probably gonna do the singing chorus stuff.

Their parents have many dreams and worries about the girls. Dad says that he sometimes thinks, "Wouldn't it be great if they went to Harvard on an academic and athletic or esthetic type of scholarship . . . but my bigger dream is to see them stay the way they are, you know, grow up as adults, but still, I like the way they are now. I wish 15 years from now they're the same way." Mom worries that a medical career would be hard on Brooke, who is already very sensitive about getting anything wrong. Mom says, "I try to talk her out of the medical field. I keep saying maybe you should be a nurse because she's so driven." On the other hand, she worries that Nicole will "go along with Brooke and she won't develop on her own. She doesn't have the drive, so she might be a Mom eating bon-bons all day . . . and wasting her life, 'cause she is smart, but she's okay to just let life pass her by and daydream." However, both parents say that their strongest dream for the girls is "to be whatever they want to be and that they're happy." Dad also expresses concerns about his daughters' safety

and well-being. “You hope you can sort of protect them from any type of hurt, and it’s probably beyond you, but I keep saying, you know, they’ve had nine good years.”

Brooke and Nicole also recognize that the world can be a dangerous place. The attack on the World Trade Center frightened both girls. Nicole said, “I was kind of scared because it could have happened anywhere. . . . I felt scared . . . and sad for two reasons, because our friends live in New York City, but actually we found out that they’re okay. . . . I felt sad for the other people and other families.” Brooke said she talked with her parents about the attack because she wanted to know “why there are enemies out there, why they want to hurt us, and why they would do something like that.” However, she said, “It’s still big news, but it’s past now. There’s war and everything, but . . . you just got to move on to other things.”

## DISCUSSION QUESTIONS

1. Identify aspects of Brooke and Nicole’s development that you think are most influenced by either nature or nurture. Be sure to cite information from the case or research from your course to back up your analysis.
2. Discuss the birth and early physical development of Brooke and Nicole using information from your course or research to explain what the Apgar score showed and whether their early physical differences may have long-term effects on their development.
3. How would you characterize the attachment bond between the twins and their parents? What effect is this likely to have on their later social development?
4. Behavioral geneticists point out that all children are influenced by inherited genes, shared environments, and nonshared environments. Discuss how each of these factors might influence the development of Brooke and Nicole. Support your analysis with information from the case and information from your course.
5. What personality and temperamental differences do you see between Brooke and Nicole? What are the likely sources of these differences?

6. Describe how Brooke and Nicole interact as siblings, and indicate how being a twin and being homeschooled might influence the nature of this relationship.
7. How do the friendships that Brooke and Nicole have differ from those of children who are in schools? How might this affect their social development?
8. What approaches to learning do Brooke and Nicole's parents take in their homeschooling? How is this likely to affect the girls' development?

### APPLYING THEORETICAL PERSPECTIVES

1. Using a sociocultural perspective, discuss how the learning that occurs in the twins' homeschooling differs from that in a school-based classroom. Use some of the following terms from Vygotsky in your analysis: apprenticeship, mediated learning experience, scaffolding, zone of proximal development.

Also see "Connecting Across Cases" questions 4 and 9, in the Introduction to this book.

### CLASS ACTIVITIES

1. Design lessons for Brooke and for Nicole that take into account their different strengths, interests, and learning styles. Present your lesson to the class.
2. Role-play a conversation between Brooke and Nicole and their parents about whether to continue homeschooling for the middle school grades.

### RESEARCH SUGGESTIONS

1. Research the development of twins and report to the class on how being a twin affects a child's development. Point out ways in which Brooke and Nicole describe experiences common to twins.

2. Conduct a group research project on the topic of homeschooling. Have members of your group report their findings on the following:
  - changes in the number of children homeschooled and reasons for homeschooling
  - differences between the families of homeschooled and school-educated children
  - academic achievement of homeschoolers versus school-educated children
  - social development of homeschoolers versus school-educated children
  - legal requirements regarding homeschooling and support systems for homeschooling families

## READINGS AND RESOURCES

American Home School Association at [www.americanhomeschoolassociation.org](http://www.americanhomeschoolassociation.org)

This Web site, sponsored by *Home Education Magazine*, provides general information about homeschooling as well as links to resources for homeschooling families.

Center for the Study of Multiple Births at [www.multiplebirth.com](http://www.multiplebirth.com)

This center is affiliated with the Department of Obstetrics and Gynecology, Northwestern University Medical School and The Prentice Women's Hospital and Maternity Center, Chicago, Illinois. Its Web site provides statistics on twins and articles summarizing research on twin births.

Lines, P. M. (2001). *Homeschooling*. Eugene, OR: ERIC Clearinghouse on Educational Management. (ERIC Document Reproduction No. ED457539)

This ERIC Digest provides practical advice for homeschooling parents and children about legal issues, resources for homeschoolers, college admission procedures, and research on the development of children who are homeschooled.

Rudner, L. M. (1999). Scholastic achievement and demographic characteristics of homeschooled students in 1998. *Education Policy Analysis Archives*, 7(8). Retrieved April 20, 2004, from <http://epaa.asu.edu/epaa/v7n8/>

This article reports the results of a study of the family backgrounds and educational achievement of over 11,000 homeschooled children.

Welner, K. M., & Welner, K. G. (1999). Contextualizing homeschool data: A response to Rudner. *Education Policy Analysis Archives*, 7(13). Retrieved April 20, 2004, from <http://epaa.asu.edu/epaa/v7n13/>

This article raises questions about the research methods and issues present in the Rudner article.

