Readings designed to accompany Unit IV, (ED 069 562) which is intended for fifth grade students, describe the Birmingham region from 1812 to 1872. Nine themes in the study illustrate settlement in the valley, early growth in Birmingham, and the changing use of the area in terms of different perceptions of natural resources. Technical advancement such as railroads and river development and new processes for making coke and steel are emphasized. A primary material, an excerpt from a Mississippi paper, which describes Birmingham in 1872 concludes the readings. Related documents are ED 061 134; ED 062 226; ED 062 227; ED 069 562 through ED 069 568; SO 002 734; and SO 002 740. (SJM)
EARLY INDIANS USE JONES VALLEY

Until 1815 only Indians lived in the Birmingham area. These Indians lived in the mountains around Jones Valley. They used the valley for hunting. These Indians used the red ores in the area as war paint for their faces.

EARLY WHITE SETTLERS IN JONES VALLEY

The first white settlers were former soldiers. The valley was named after one of them--John Jones. Soon other settlers arrived from nearby states. These settlers used the valley for farming and hunting. They found deer and turkeys as well as other wild animals. They fished in the Warrior and Cahaba Rivers. They also grew some cotton and raised cattle and horses.

The early settlers carried cotton to the present site of Tuscaloosa. There they exchanged it for salt, sugar, coffee, and cloth. By the time of the Civil War, a stage-coach line connected the valley with the outside world. A stage stop was located at Ellyton. This was a small farming town. It grew up close to the later site of Birmingham.

The early settlers did not use iron in the same way that the Indians did. They used the ore to dye their buckskins. They also used a little ore to make iron for horseshoes.

In 1818 a small furnace was built in the valley to make iron. This furnace was built of stone. A 500 pound forge hammer was lifted up by water power. It fell of its own weight. This iron mill was located close to present-day Russellville on the old Cedar Creek.

In the 1850's a geologist began mineral surveys in the state. He reported the rich ores in the Jones Valley area. However, not much use was made of any Alabama ores until the Civil War. At that time the Confederate government began to use some of the ores near Selma for producing munitions. A railroad was built to Selma to make use of the ore.
THE SETTLEMENT OF BIRMINGHAM

After the Civil War, the man who built the railroad to Selma began to extend his railroad further north. Another railway was being built across Alabama. It would cross the first line close to the town of Elyton.

A group of men took advantage of the coming railroads. They organized the Elyton Land Company. This company bought about 4000 acres near the proposed junction of the railroads. They laid out a city on paper and staked out lots. Then they began to sell lots before the railroads arrived. These lots went on sale on June 1, 1871.

The original city of Birmingham was located 30 miles from the Warrior River. In 1870 this river could not be used for much boat travel. Therefore, it did not seem important to locate the town on the river.

While the town was being built, many people lived in small hotels. However, there were not enough hotels to take care of all who wanted rooms. Therefore, the hotel owners placed many beds in one "ward" or large room. One set of hotel guests rented these beds by night. Others rented them for the day.

The site of Birmingham was not on any good transportation route. Therefore, it would be difficult to bring in bricks for building. However, no one would start a brick-making plant until he was sure of a market for his product. The plans for the city called for building many houses and stores in one year. The Elyton Land Co. developed a plan to attract two brick companies. They drew up a rule that no one could put up a building less than two stories high in the business district. The rule also stated that these buildings must be made of brick. All who bought lots in this section were required to put up their buildings within 12 months after buying the lots.

The Elyton Land Company then made contracts with the two brick companies. They promised the companies that they would pay for up to one million bricks from each if the bricks could not be sold to builders. The companies came to Birmingham and built brick-making plants.
EARLY GROWTH OF BIRMINGHAM

1. The First Year of Growth

First house begun in August, 1871

December, 1871 -- 4000 people
  500 houses
  6 churches
  4 hotels
  1 bank

2. Population Growth, 1873-1890

Early in 1873 -- estimated population of 4,000
End of 1873 -- estimated population of 2,000
1880 -- estimated population of 3,086
1890 -- estimated population of 26,179

3. Number of employees in Manufacturing in Jefferson County, 1860-1958

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
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<tbody>
<tr>
<td>1860</td>
<td>6</td>
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<tr>
<td>1870</td>
<td>44</td>
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<tr>
<td>1880</td>
<td>301</td>
</tr>
<tr>
<td>1890</td>
<td>3,247</td>
</tr>
<tr>
<td>1958</td>
<td>60,450</td>
</tr>
</tbody>
</table>
The site of Birmingham had been chosen for two reasons. First, it was at a railroad crossing. Second, people expected to be able to produce iron from the iron ores and coal in the valley.

Early attempts to produce much iron were unsuccessful. The coal in the area was unlike coal used in other places to produce steel. Coal must be turned into coke in order to make iron. But the first efforts to make coke from this coal failed. The first mill in the area had to use charcoal instead. However, it took 196 tons of charcoal to make one ton of iron in 1873. This was far too expensive to compete with iron from other parts of the country. The first plant had to close down.

Those interested in making iron and selling land in Birmingham now organized an Experimental Coke and Iron Company. This company brought in experts to try to develop coke from the coal in the area. The companies owning the first coal mines might fail unless this could be done. Therefore, they provided free coal for the experiments. The railroad lines hoped to transport iron and coal as well as people. They might fail unless the iron industry could be developed. Therefore, they agreed to transport the materials needed for no charge.

Many experiments were tried and failed. Finally, in 1876 a process was developed to turn the coal into coke. People now rushed to buy lots in Birmingham. The price of land increased by leaps and bounds. However, it was soon discovered that Birmingham steel still cost more to produce than steel in other parts of the country. Unless a cheaper process could be invented, Birmingham would not become a steel center. It might ship iron ore and coal and even pig iron elsewhere. It would not become an industrial city.

Then in 1895 a new invention made it possible to produce steel more cheaply from the raw materials in the area. Birmingham's future as an industrial city was secure.
The early coke-making plants in Birmingham wasted much of the coal. Then men learned to use much of this waste material. For example, a plant was developed to use the waste gas to light and heat buildings. Other plants were built to produce ammonium chloride for batteries and ammonium bicarbonate for cooking and washing solutions. Plants produced household ammonia, ammonia sulphate for fertilizers, nitrates for explosives and tar pitch for paints, roofing and paving. Still other plants were built to produce wood preservatives and paint thinners, shoe polishes, coal dyes, saccharine (a substitute for sugar), perfumes, naphtha, and rubber cement. Other plants could use former waste products to produce various disinfectants, drugs, and photographic chemicals. Scientists are still at work trying to develop new by-products from the waste materials used in producing coke.

Scientists have also developed uses for the slag left when iron has been removed from the ore rock. The slag piles are now used for road materials, brick and tile, and fertilizers.
In the spring of 1873 the country went through a period of hard times economically. Birmingham was also hit by a cholera epidemic. Many people in Birmingham left the newly-built town. The following excerpt is from Mary Powell Crane, *The Life of James R. Powell*, Brooklyn: Braunworth & Co., 1930, pp. 261-262.

... Bats and owls were the sole occupants of many buildings which had been rented by anxious tenants and occupied almost before they were finished, only a year and a half before. The streets, which but a short time before were the scenes of busy industry, were now silent and almost deserted, presenting the usual listless aspect of the typical Southern village. ...

The population of Birmingham, which in the early part of 1873 had been estimated at 4000, had now dwindled to less than 2000.
The Black Warrior River flows close to Birmingham but not through it. You will recall that it could not be used for boat transportation in the early days. The government finally built dams and locks on the river. The dams provided a river with an eight foot deep channel. This was enough for barge traffic on the river. The locks made it possible to move barges and boats past the dams. A short railroad connects Birmingham with Birmingport on the Black Warrior River. Here goods are loaded onto barges or unloaded from barges. The barges can carry goods between Birmingport and Mobile on the Gulf of Mexico. This distance is 419 miles. Costs of river transportation are far cheaper than for carrying the same goods by railroad or truck. This river transport can be carried on all year long. WHY?

The dams on the Black Warrior River also provide hydroelectric power. This development provides Birmingham with plenty of cheap electricity.
Raw Material Costs Per Metric Ton of Pig Iron, 1926

<table>
<thead>
<tr>
<th>City</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Pittsburgh</td>
<td>$14.50</td>
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<tr>
<td>Chicago</td>
<td>15.10</td>
</tr>
<tr>
<td>Birmingham</td>
<td>11.27</td>
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Freight Costs of Assembling Iron Ore, Coal, and Flux Per Long Ton, 1924-1926

<table>
<thead>
<tr>
<th>City</th>
<th>Cost</th>
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<tr>
<td>Pittsburgh</td>
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<td>Chicago</td>
<td>5.58</td>
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<tr>
<td>Birmingham</td>
<td>2.65</td>
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</tbody>
</table>
BIRMINGHAM IN 1872

You will be surprised to know that in three months and twenty days after our first house was built, Birmingham was incorporated a city, on the 19th of December... It has twelve hundred inhabitants, and forty-eight large stores, eighteen of which are two-story brick. Now we have four hundred houses... one large hotel and livery stable; ten boarding houses; five restaurants; one foundry and machine shop; three blacksmith shops; two planing mills and sash and blind factories; two grist mills; one cotton factory commenced.... All the buildings and enterprises mentioned above are finished and in successful operation, except the foundry and machine shop which is not yet commenced—the lots are engaged for that purpose. Nine brick-yards are now employed actively in making brick... Lime kilns are in successful operation... They provide excellent lime on the premises. Several quarries of rock are opened, which give choice to builders to use that material instead of brick.

*From a letter written by Colonel James R. Powell, published in The Corinth Ledger, a Mississippi paper.*