The Urbanization Game

Needed to begin:

- Use 24" X 15" paper
- Duration: 4–5 days
- Symbols and scale legend sheets

Directions to students:

- Listen to background information, put pencils down and Listen.
- Once upon a time…
  Include info about villages, needs for self-sufficiency, average traveling distance radius in a villager's life.

Round 1:

Draw [keep it simple]

- a RIVER across the paper [average 1-1/2" wide and runs edge to edge [left to right]
- 2 BRIDGES [wooden]
- 4 main ROADS[single line]
- 15 HOUSES [note: foundation of house must be touching a road

Round 2:

Select one house, which will be yours; shade it in

Draw [must also have foundations on a road]

- 1 CHURCH
- 1 CEMETERY
- 2 STORES
- 1 PUB

Round 3:

The year is 1730 and the country is England. Here you see a typical village. For the last 300 years, people in this village have earned their living through farming. They supplemented their wages with domestic labor, primarily the spinning and weaving of cloth by hand.

Most farmers own small parcels of land. While people work long, hard hours in the fields and at home, poverty is widespread. Most people are religious. The crime rate is very low. The few stores carry very little variety of luxury or household goods.

Most of these people born here look forward to dying here too, since transportation is limited. In the next 100 years, radical changes will come to this village.

Give your village a suitable name [and write the NAME in the center of the backside of the paper] and let's see what happens to your village over this period of time.

Remember: "Change comes quickly, and waits for no man!"

Round 4:

Now it is 1750. There is a population explosion, for a variety of reasons [such as, soap and sanitation].

Draw

- 10 more HOUSES [#16-25]
- 1 more CHURCH
- 1 more PUB
- 1 more ROAD
- 1 MORE RIVER BRIDGE
- 1 more STORE

Round 5:

The people in your village need more food and goods to meet their survival needs. Also, there is a new demand for more sources of employment.

Coincidentally, a number of mechanical inventions for farms are invented, as well as new, more productive farming practices are adopted. Because credit is available with lower interest rates and because money is available for investment due to trade profits, this new farm machinery is purchased.

In order to better utilize this farm machinery, pressure is placed on the English parliament to pass the **Enclosure Laws**. Consequently, many small parcels of land are bought by wealthy landowners.

- Draw a BROKEN LINe around an area on your paper [the area needs to be as large as your hand] to show this consolidation.
- WRITE in this area "For Agricultural Use Only".
- Also, relocate any houses and remember that NOTHING is to be drawn in this area for the rest of the game.

Textbook support: pages 508-511

1. Enclosures .....page 509
2. seed drill and crop rotation.....page 509
3. livestock breeding .....page 510

Round 6:

In 1789, Richard Arkwright patents a spinning machine, which is called the **water frame** because water powered it. This technological development revolutionizes the spinning of cotton. The water frame can spin and weave cloth 100 times faster than can be done by hand.

Richard Arkwright builds one of the water frame machines in your village. This is why he is known in history as 'Father of the Factory'.

Draw

- 1 FACTORY, with smoke [remember where it must go].
- 1 CAPITALIST ESTAte with a $ to show it is Arkwright's estate.

Textbook support: pages 511-514

4. textile industry inventions.....page 512-513
5. Great Britain's advantages.....pages 510-511
6. steam engine.....pages 513-514

Round 7

Workers are needed to work in this factory. Since many people cannot compete with the machine, and still more have lost their land because of the Enclosure Movement, many people come to work for Arkwright.

To show this change, draw

- 15 HOUSES [#26-40]
- 5 TENEMENTS [#1-5]
- 1 CHURCH
- 1 PUB
- 1 STORE
- 1 BRIDGE
- ANY ADDITIONAL ROADS

We must also add one more development. It is important because it provided cheap, efficient transportation. To illustrate its impact, compare this:

- one packhorse could haul a load weighing 1000 pounds by road, compared to
- an equivalent amont of labor could haul 100,000 pounds by CANAL

The canal revolution significantly reduced the prices of raw materials and finished goods because it reduced the costs of transportation.

- add 1 CANAL [the canal runs <u>from the river to the edge of paper</u> and should be at least 6 inches long]

<u>textbook support:</u>

- water transportation.....page 514

Round 8

Since the profits from this textile factory are enormous, other investors invest their money [or capital] in machines like the water frame. New factories are built. These factory owners will be called capitalists, because they had the capital or money to purchase raw cloth, buildings, machines and to pay workers.

- add 5 factories [#2-6] [no smoke coming out yet]

<u>textbook support:</u>

- capitalism and banking.....page 511, 517-518, 523

Round 9

Word has reached surrounding villages of these new sources of employment and the high wages which go with these jobs. More and More people move to your village. Housing is in great demand. New housing is constructed quickly, with little attention to building codes or comfort. So draw fast…

- add 10 HOUSES [#41-50]
- 20 TENEMENTS [6 - 25]

[This is called progress.]

Round 10

More workers mean more people have to live, eat, and shop for goods. They will need stores that sell cheaper food and goods. Since workers have only Sunday off, many seek religious relief.

- add 4 STORES
- add 1 church

Round 11

Then, women worked long hard hours in these factories. The average workday begins at 6:00 A.M. and ends at 9:00 p.m. There is only a 15 minute break for lunch. After work, exhausted stop at their favorite pub to relax.

- add 4 PUBS
- add 1 SCHOOL

[Before this, grandparents and mothers educated their children.]

Round 12

Despite the misery of the workers, the capitalists and large farm owners are making large profits.

- add 4 ESTATES with $ on them
- add roads, as needed

textbook support:
Case study: A Girl in the mills.....page 517
living conditions.....page 519
working conditions.....pages 520-522

Round 13

It is now the 1770's. A man named James Watt invents the rotary steam engine. The steam engine replaces the water frame. First, it is more efficient; second, it allows factories to be built away from the river, and near canals. More and more capitalists buy these steam engines for their textile factories. Additionally, in 1785 the steam-power loom, created by Edmond Cartwright, speeded up the weaving of cotton yarn into cloth. Soon, all aspects of cotton manufacture were performed in factories. Domestic or cottage manufacture, important for several centuries, but inefficient, begins to disappear. Machines can spin and weave cloth a thousand times faster than could be done by hand. The modern weaving industry is born.

- draw 3 CANALS [3 to 6 inches long]
- draw 10 FACTORIES [#7-16], with smoke
- add 3 COAL MINES [the canals connect the coal mines to the factories; the coal mines ate at the edge of the paper; if a house or tenement is in the way, relocate it.

textbook support:
textile industry inventions.....pages 512-513
steam engine.....page 513

Round 14

It is almost 1800. Henry Cort has invented **the Puddling Process**
[process for converting pig iron into wrought iron by stirring the molten metal, then, by raking off the slag-impurities it becomes pasty and purer; then it is beaten and rolled to expel more slag and to convert it into wrought iron]. This process made it possible for coal [which is in abundance in the hills near your village] to be used as a fuel in the iron industry. Consequently, England and your village are propelled into the 'Age of Heavy Industry'. Large new factory districts appear. With manufactured iron available at low prices and transported by your canals, the construction of more and better machines become possible

- add 3 COAL MINES
- add 10 FACTORIES [#17-26] for textile & iron
- add one new IRON BRIDGE

Round 15

(1810) It is now the early 1800's. Miners are mining coal to heat water for your steam engines. But your canals and roads are not able to transport the coal and water to your factories. Railroads, just recently invented, are now built to fill this transportation need.

- add 3 RAILROAD LINES connecting your factories and coal mines [the railroad should be near at least 15 factories]
- add any IRON BRIDGES you need.

Textbook support:
the railway age .....pages 514-516

Round 16: [1785-1810] Social and Urban Changes

Meanwhile, we've ignored other developments, the population of workers increases, because wages are higher in towns. many of these workers have worked on the construction of the railroad lines and factories and coal mines.

- 5 HOUSES [#51 - 55]
- 5 STORES
- 5 PUBS
- 3 SCHOOLS
- 10 TENEMENTS [#26 - 35]
- 2 cemeteries
- 1 CHURCH

- Due to the pressures of urban growth, ELIMINATE one-half of the agricultural land set aside during the enclosure movement.

Textbook support:
growth of cities.....page 519
class tensions.....pages 522-523

Round 17

Thousands of people [about 50,000] now reside in your 'town' or perhaps city is a better word. Soon there is a surplus of workers. Capitalists, wanting to maximize their profits, hire children and women before men because they perform the same work at 1/2 to 1/4 the wage of men. Since the children find themselves doing factory work and worst; working in coal mines where their small size is an advantage

- Erase 1 SCHOOL

Textbook support:
living and working conditions.....pages 520-521
child labor .....pages 517, 521-522

Round 18

As a result of this chronic male unemployment, the crime rate begins to soar. Family life is completely disrupted. Alcoholism reaches epidemic proportions.

- add 4 PUBS
- add 2 JAILS

Round 19

The working condition in these factories [whether textile or iron] are appalling. Many workers contract the deadly factory fever or white lung disease. Other injure or mutilate their bodies in factory accidents. Machines contain no safety devices, Children, weakened from lack of sleep and proper diet, succumb more quickly. Capitalists are relatively indifferent as there is such a large labor force available for employment that will replace those who cannot work.

- add 2 CEMETERIES
- add 2 HOSPITALS

Round 20

Meanwhile, the need for better RxR transportation continues. Coal, iron and other raw materials need to be moved to the factories. The finished products from the factory need to be moved to the sea ports and overseas to foreign markets.

- add 2 railroad lines

More workers are to build the RxR, work in the coal mines and toil in the factories; and come they do to your 'town' or 'city'.

- add 5 TENEMENTS
- 5 stores
- 1 CHURCH
- 3 JAILS

Also, there are now enough people to support the arts.

- add one theatre/museum

Textbook support:
the railway age .....pages 514-516
class tensions.....pages 522-523

Round 21

The year is 1830. There are no pollution controls, so the air in your city is black. At noon, the sun doesn't cast a shadow, smog turns day into night. The water is completely unfit for drinking and bathing. many citizens, even those who do not work in the factories, develop lung cancer and other fatal diseases which are associated with intense stress. Most of the people are lucky to reach 40 years of age. Your city is overcrowded and shrouded in factory smoke. The loss of privacy and clean air troubled many. Suicide rates begin to double. The stress of urban work and life becomes unbearable for many.

- ADD ONE HOSPITAL
- 1 JAIL
- 3 CEMETERIES

textbook support:
patterns of change chart .....pages 515, 518, 519, 550
worldwide impact.....page 517, 547
reform.....pages 523, 551-552
An Industrial City.....page 554

Postscript

This misery will not last forever. Soon, a powerful reform/protest movement will emerge that, in time, will be responsible for worker's unions and political action

In Conclusion

1. On the back of your paper, write a NEW NAME for your city.
2. In your journal, comment on the important ideas/concepts you learned from this game.