GAME OF THE INDUSTRIAL REVOLUTION

The term "Industrial Revolution" refers to the change from the making of goods by hand in homes to the making of goods by machine in factories. The Industrial Revolution began in Great Britain during the 1700's. It spread to other European countries and to the United States in the early 1800's.

Before the Industrial Revolution, only 1 out of every 10 Europeans lived in cities. The majority resided in small towns and villages where most earned a living from farming. Since farm families were poor, they usually made their own clothing, furniture, and tools. Only a few landowners, public officials, and businessmen had enough money to buy manufactured goods. Manufactured goods could be purchased from craftsmen or from merchants who hired people to make things in their homes. A merchant would take raw materials to workers' homes and later collect the finished products and sell them at a profit.

After the Industrial Revolution, power-driven machines replaced handtools and factories became the centers of manufacturing. New inventions made production faster, easier, and cheaper. James Hargreaves' spinning jenny and Richard Arkwright's water frame spun yarn needed for making cloth. Later, Samuel Crompton invented the spinning mule which combined features of both the spinning jenny and water frame. John Kay's flying shuttle and Edmund Cartwright's steam-powered loom took the place of handlooms and speeded the weaving of cloth. Many more inventions and improvements were made during the 1800's as industrialization quickly spread from country to country and changed the lives of millions of people.

A migration from farms to cities occurred during the Industrial Revolution. People took jobs in textile mills and other factories in such British cities as London, Liverpool, Manchester, and Birmingham. By the mid-1800's, hundreds of thousands of machines were turning out a variety of manufactured goods. While factory workers put in long hours for little pay, businessmen who owned natural resources, factories, and transportation facilities grew rich from the huge profits made in manufacturing and trade.

Rules for the GAME OF THE INDUSTRIAL REVOLUTION

(1) Pretend that you are a businessperson living in Great Britain during the Industrial Revolution. The bank has loaned you $200 million to invest in natural resources, mills, factories, and transportation facilities found in Great Britain. Some class members will become owners of mines that produce coal and iron ore, or factories that make steam engines, plows, and threshing machines. Others will buy textile mills that have spinning jennys, water frames, spinning mules, flying shuttles, and steam-powered looms. Some investors will purchase canals, railroads, and shipping companies that carry raw materials to factories and finished goods to market.

(2) Locations of natural resources, mills, factories, and transportation facilities are found on the map of Great Britain on page 3. The map has been divided into 32 sections -- 1A, 2C, 5D, and so on.

(3) There are 10 investment rounds. During each round, you have the opportunity to make investments in one section only -- whichever section you choose. You can make 0, 1, 2, or 3 investments in a round. Keep a record of what you buy on the form at the top of page 4. In round 1, for example, you might go to section 4B where there are nine businesses to choose from. Let's assume that you decide to buy the 2 mills with spinning jennys and the 1 with water frames. You will note your investments on the RECORD OF INVESTMENTS form, then subtract the total amount of these investments ($6 million) from the $200 million you

started with under "1st Balance." You now have $194 million under "2nd Balance." At this point, the teacher will read to you an event that has just occurred which may bring you profits or losses. Perhaps it will not affect you at all. Note your profits or losses, if any, in the "Event" column on the investment form (-4, +7, etc). If you neither gain or lose money, put a zero in the space. Now you can figure your ending "3rd Balance," which then becomes your beginning "1st Balance" in the next round. Example:

(numbers represent millions of dollars)

Round	1st Balance	Section	Investments		2nd Balance	Event (+ or -)	3rd Balance
			Business	Cost			
1	$200	4B	SJ	2	194	+7	201
			SJ	2			
			WF	2			
2	201						

(4) The object of the game is to build business "chains." You will have a chain after making two or more investments in the same kind of business. For example, 2 coal mines, 3 steam engine factories, and 6 spinning jennys are all chains. The longer your chains, the greater your profits.

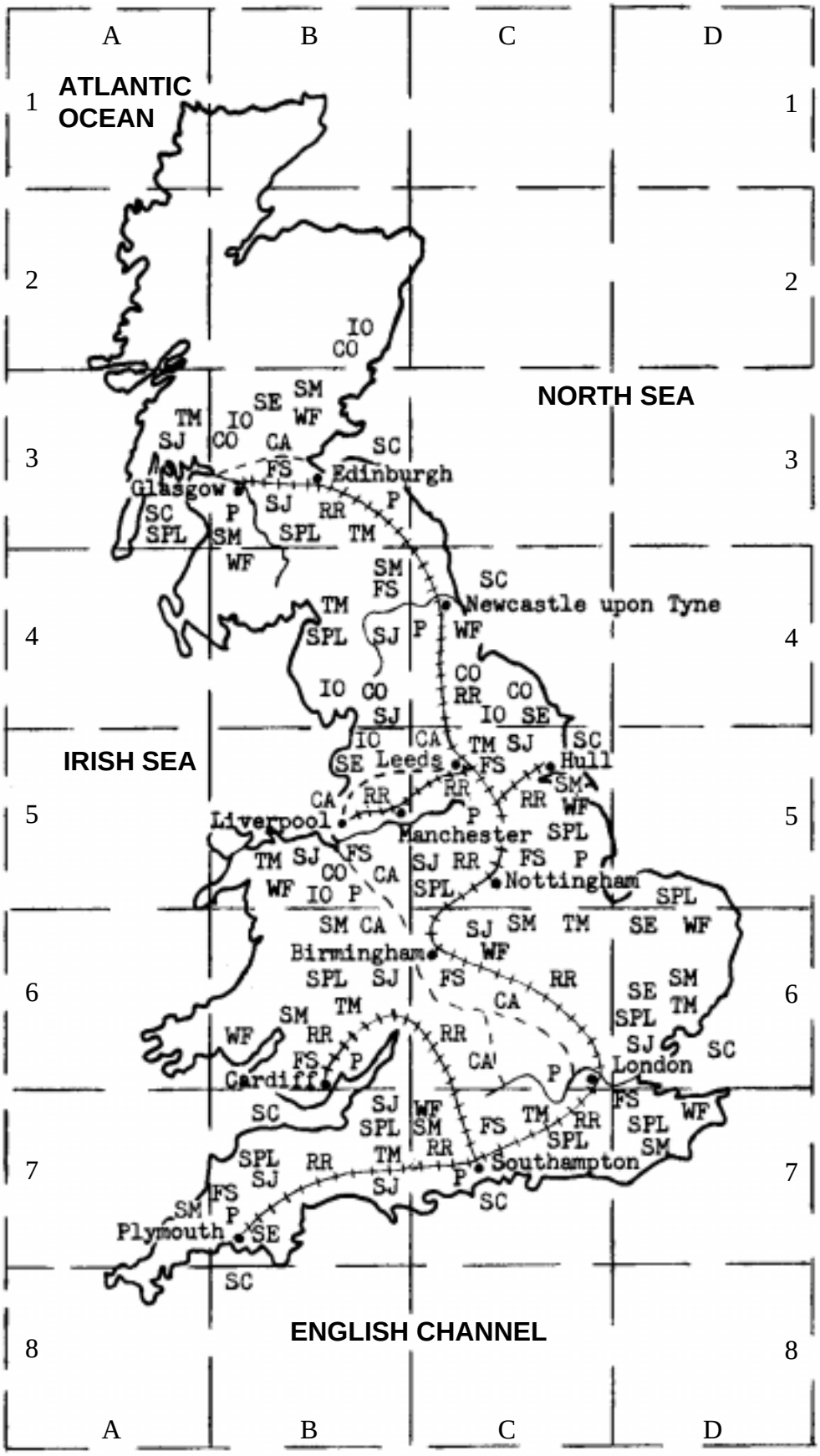
(5) Here are some investment hints:
   (a) The more money you invest, the greater your chances of making large profits.
   (b) Invest carefully -- do not buy everything that is available. Once you buy something, you cannot sell it.
   (c) The VALUE OF INVESTMENTS table below shows the amount of money you will get back at the end of the game for the investments you have made. For example, if you bought 5 railroads, you would get back $240 million. This would mean a sizable profit on your original investment. Your original investment in 5 railroads at $16 million each was just $80 million.

(6) The VALUE OF INVESTMENTS table will be used at the end of the game to compute your profits. Figure your profits (or losses) on the TALLY SHEET on page 4. It is now time to choose any section on the map and make your Round 1 investments.

VALUE OF INVESTMENTS
(in millions of dollars)

	1	2	3	4	5	6	7	8	9	10	11	12
canal	16	48	96	160	240	336	448					
coal	20	60	120	200	300	420						
flying shuttle	3	9	18	30	45	63	84	108	135	165		
iron ore	20	60	120	200	300	420						
plow	1	3	6	10	15	21	28	36	45	55		
railroad	16	48	96	160	240	336	448	576	720	880	1056	1248
shipping company	10	30	60	100	150	210	280	360				
spinning jenny	2	6	12	20	30	42	56	72	90	110	132	156
spinning mule	4	12	24	40	60	84	112	144	180	220	264	
steam engine	10	30	60	100	150	210						
steam-powered loom	4	12	24	40	60	84	112	144	180	220	264	312
threshing machine	1	3	6	10	15	21	28	36	45	55		
water frame	2	6	12	20	30	42	56	72	90	110		

PRODUCT	COST
coal (CO)	20
iron ore (IO)	20
railroad (RR)	16
shipping company (SC)	10
spinning jenny (SJ)	2
water frame (WF)	2
spinning mule (SM)	4
flying shuttle (FS)	3
steam engine (SE)	10
plow (P)	1
threshing machine (TM)	1
canal (CA)	16
steam-powered loom (SPL)	4



RECORD OF INVESTMENTS

Round	1st Balance	Section	Investments		2nd Balance	Event (+ or -)	3rd Balance
			Business	Cost			
1	$200						
2							
3							
4							
5							
6							
7							
8							
9							
10							

TALLY SHEET

At the end of Round 10, use this form to compute your profit or loss.

	Business	Number		Value from Table
(1)	canal	_____	=	_____
(2)	coal	_____	=	_____
(3)	flying shuttle	_____	=	_____
(4)	iron ore	_____	=	_____
(5)	plow	_____	=	_____
(6)	railroad	_____	=	_____
(7)	shipping company	_____	=	_____
(8)	spinning jenny	_____	=	_____
(9)	spinning mule	_____	=	_____
(10)	steam engine	_____	=	_____
(11)	steam-powered loom	_____	=	_____
(12)	threshing machine	_____	=	_____
(13)	water frame	_____	=	_____

_____	Total Value
+ _____	3rd Balance from Round 10 (if any)
_____	Sub Total
– 200	Loan
_____	Profit

Note: If you do not have enough money to repay the $200 million loan, then you have suffered losses equal to the difference between $200 million and your cash on hand.