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A Simulation Games Approach to Supplement the Teaching of Basic Economics Concepts in Elementary School

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A SIMULATION GAMES APPROACH TO SUPPLEMENT THE
TEACHING OF BASIC ECONOMICS CONCEPTS
IN ELEMENTARY SCHOOL

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A SIMULATION GAMES APPROACH TO SUPPLEMENT THE
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A year-long simulation game was created to facilitate the teaching of basic economics in a sixth and seventh grade middle school. The game could be adapted to implementation at lower grade levels. The students built two, table-top cities. They established a money system and were paid for positive behavior and effort. With their earned income and with loans from a bank, they purchased land, built homes, invested in business franchises, engaged in trade, and worked collectively to finance and build government projects and services. Discussion questions and evaluation tests were developed, based upon the curriculum guidelines established by the Joint Council of Economic Education.

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CHAPTER I

INTRODUCTION

There has been a growing concern by those in business and in economic education for the teaching of economics in the public school system. There also have been curriculum guides and media programs developed or guided by economic education groups, such as the Joint Council of Economic Education (JCEE) and numerous state educational offices. However, economic education has played a secondary role in our public school learning process. Rhodes (1978) stated that more than forty percent of the larger school systems require some kind of economics course for graduation, and that most school systems still offer economics only as an elective. He added that even when the economics was required, it was often designed to extoll the virtues of the free-enterprise system rather than "reflecting the reasoned, analytical approach sought by leaders in the field" (p. 27). The JCEE (1973, 1975) in their review and evaluation of economic concepts in major social studies textbooks, found that prior to 1969 economics in the text consisted of isolated, descriptive facts to be memorized. The JCEE found the material dealing with economics characterized by inadequate, inaccurate definitions. They noted that there generally was a lack of structure

and a lack of conceptual framework for teaching a developmental program of economics to different grade levels. In some programs the JCEE had difficulty determining which concepts were dealing with economics.

Economics has seldom been taught as a separate subject. It has been included, almost incidentally, with other broader subject areas such as Social Studies, and it has been fit in whenever there was time. Most young Americans have been expected to get their economics from their parents and the press (Gobbs, 1976). Furthermore, some writers have expressed doubts concerning the value of the methods and curriculum offered. Boyer and Smith (1978), representing that view, felt that efforts by most groups in economics education have done little to change peoples' attitudes and knowledge about economics. There have been several explanations offered as to why economics education has not received more emphasis in the public school learning process:

- 1) The subject matter has been too controversial to teach (Cobbs, 1976).
- 2) The teachers in the school systems have had no interest or enough knowledge concerning the subject. Indeed, many teachers are afraid of the topic (Dowell, 1978). In addition, the JCEE report (1973) found that many social studies programs did not provide enough information to aid those inexperienced teachers in teaching economics.
- 3) Most teacher training colleges have not offered any

courses or stressed the importance of teaching economics, especially in the elementary grades (Dowell, 1978).

- 4) Teachers have felt that the students weren't ready to learn the concepts (Senesh, 1978). They have not seen the relevance of teaching economics.
- 5) Educators have viewed economics as another subject that was being forced into an already overcrowded curriculum (Cobbs, 1976). "More important" courses received preference.
- 6) Economics education was left out of the push in the 1960's to develop learning package programs and to make the curriculum more relevant (Dowell, 1978). It has been pushed to the wayside and has been trying to "elbow its way in" for the past two decades. Some educators even considered the teaching of economics in the elementary school an ultimate in absurdity (Romsett and Kaufmann, 1975).
- 7) Educators have not determined adequately the meaning of the term, "economics education." There have been considerable differences in definitions and in terms of goals and objectives.

Goals and Objectives of Economic Education

Such groups as the JCEE were created through the cooperative effort of business, labor, agriculture, education, the economics profession, and government (Senesh, 1978).

The concern of these interest groups has been summed up by Porter in Dowell (1978): "We are a nation of economic illiterates" (p. 3). Boyer and Smith (1978) added, "Seldom do we find a public opinion survey, a graduate study, or a speaker saying much in a positive way about economic literacy in the United States" (p. 100). Metzner and Sims (1978) wrote that a recent Gallup Poll found that big business currently ranks lower with the public than all other institutions of what is regarded as the U. S. power structure; and that young people tend to be more antibusiness than their elders. Many writers such as Dowell (1978) and Boyer and Smith (1978) blamed the public's growing mistrust of business and government and the free-enterprise system on that illiteracy. One goal of economics education has been to make the citizenry more knowledgeable concerning economic concepts, so that they might understand the relationship between economic affairs and their lives, with the hope that they will accept the present system with more understanding and insure the survival of the present free-enterprise system.

Another related goal has been to improve the "citizenship" of the student, with the intent of improving the students' awareness of the political, social, and economic system; which in turn makes them more capable of making decisions and of participating constructively in the present system. The emphasis here was to teach the basic economic concepts as objectively and as unemotionally as possible.

The JCEE's intention was not to present economics guidelines as a body of doctrine, but as a basic body of concepts that would aid the student in problem-solving. McKenzie (1977) questioned the citizenship goal under an objective approach because it produced little incentive for the students to make application of the values and concepts they learned after they left the classroom.

He believed that there is a big difference between what students experience in the classroom and what they actually do at the voting booth. Economic education must somehow help people vote for what they know is economically most beneficial even though the legislation may not be in their own best interests. McKenzie believed that there are too many "ifs" to make the citizenship goal feasible. The citizenship argument is correct . . . "if students take economics, if they learn the subject matter and retain what they learn, and if they employ what they know in their political-citizenship behavior" (p. 9). Merely presenting the student with the economic concepts will not insure that those concepts will be used in the best collective interests of society. Economics education should try to appeal to the individual's self-interests and goals, with the hopeful intention that those self-interests will then spill over into the collective interests of society, such similar like self-interests benefit both the individual and society in the free marketplace. McKenzie did not want economics education to be influenced by the varied self-

interests of different economic-business groups. He felt that the goals of economic education should come from research and not from the many groups interested in imposing their views on the students.

Martin (1979), in his response to McKenzie (1977), agreed that there is obvious evidence that people, whatever their education, will still pursue their own short-run selfish interests, even though those interests may conflict with the public interest. He added that people may not need economic education in order to understand those short-term interests. The reason they should be taught economic education is that they are not likely to see the more remote, longer-term effects of such things as inflation or price controls. Martin believed that the goals of economic education are not as varied and competitive as McKenzie (1977) portrays them. He contended that most economists agree on the basic content of micro-economics--that everyone does not have to know everything about economics--that economics education is not the panacea to the nation's problems--that the teaching of economics does not have to be an all or none proposition. However, economics education does need to place more emphasis on communicating to the students about how interrelated and interdependent the parts of the economy really are, in order to understand the long-term effects of economic decisions.

Boyer (1978) in criticizing the JCEE guides, maintained that a purely objective approach has produced students who have merely learned terminology and have not been encouraged to question the present system. The material has not asked the students to ask more relevant, ethical questions that have needed answering. Boyer's viewpoint asked for education that studies economics in terms of humanistic-environmental goals, not economics for the sake of efficiency and profit at the price of people. The goal of economic education should consist of not only teaching the system with its terminology and broad concepts, but also how those concepts have been or should be applied in reality.

There generally has been, then, general acknowledgement for the need of public economic education, although there has been conflict in terms of desired goals. Boyer (1978) summarized that acknowledgement: . . . the kind of future we will have is connected with and will follow upon the kind of economic system we have, and the kind of economic system we will have in the future is affected by the kind of economic education people get today" (p. 32).

Economics Education in the Elementary Schools

Ideally, students would learn the basic concepts of economics in everyday living and in work-study programs. The education should not be entirely the responsibility of the schools, but as Dowell (1978) recognized, the schools

under our present system do provide the best mechanism for getting the job done. Where and in what grades have the schools begun economic education? People have generally agreed that economic education needed to be included in the secondary curriculum. However, it has had a difficult time finding a priority space in the elementary curriculum. It has had minimal introduction in the lower grades, the reasons having been: 1) there has not been enough time to fit the subject into the daily schedule; 2) teachers have not had the knowledge or training to teach economics, and, thus, have a fear of teaching the subject; 3) teachers felt that elementary students have not been ready to learn difficult economic concepts--economics was a subject students would have time to learn in high school when it would be more relevant to them.

Senesh (1978) has argued the last excuse. He wrote that a perpetual waiting for readiness to introduce a formal program of economic education resulted in an unteaching of much of what the student learned by themselves. He found that children already bring enough experiences with them to first grade to enable basic economic principles to be included in their learning process.

Fox's (1978) ideas about elementary economics education coincided with Senesh's view. She stated that most research has dealt with comparing curriculums to decide which was the best to use with a particular age. She wanted to see research examine childhood development to determine what child-

ren bring to school that is relevant to economic learning. Economic education programs need to consider the attitudes, experiences and cognitive ability of the students. Fox believed that economic education is possible in the elementary schools if educators start with children's experiences to assure that the concepts will begin at the students' developmental level. Too often, she maintained, the basis for an economic program in the elementary has been a college text scaled down to a primary level.

The JCEE (1978), in its rationale for developing a Master Curriculum Guide, began with the premise that almost everyone makes economic decisions, and "If individuals are to make decisions which are intelligent, informed, and based on logical analysis, the time to begin teaching them economic concepts and economic analysis is at the beginning of the formal education process (p.1).

The JCEE rationale recognized the differences in cognitive abilities between the primary and the intermediate grades. Since primary students are generally self-oriented, the economics materials should be highly personalized. This idea coincided with Fox's (1978) suggestion that the academic material should begin with the students' experiences. As the students enter the intermediate grades they can begin to analyze how their own personal decisions can affect a larger group. They are able to evaluate the effect of their chosen alternatives to the normative conditions that are held by the group.

STATEMENT OF THE PROBLEM

Although the interest in economics education in the elementary schools has grown, most school systems have not emphasized that interest in their curriculum. Economics education has taken a minor, intermittent role in the elementary learning process. There has been a need to develop more elementary school economics programs that the public will see as relevant and as worth the time, effort, and money to include in the curriculum. The programs need to be capable of evaluation in terms of pre-established goals and they should include methods and materials that are flexible as to the cognitive abilities of the students. The curriculum also need to offer motivation and applicability, and opportunities for the students to evaluate the economic systems they are studying. The concepts need to be presented so that they are included into several parts of the whole learning program and into the student learning objectives of other subject areas; so that educators do not feel another irrelevant subject is being crowded into an already overly-crowded curriculum.

PURPOSE OF THIS PROJECT

The intent of this project has been to design a supplementary aid for teaching basic economic concepts to sixth and seventh grade students that:

- 1) Uses a simulation game format.
- 2) Provides motivation for the learner and teacher.
- 3) Presents the basic economic concepts in prestated goals and measurable outcomes.
- 4) Allows for individual cognitive and experiential differences in the learner.
- 5) Is capable of implementation into the entire curriculum.
- 6) Has enough flexibility to be adapted to any elementary school grade level.
- 7) Allows for student evaluation of the economics system they are studying.
- 8) Provides for application of the concepts that are presented.
- 9) Is inexpensive to implement.
- 10) Is capable of being used without the presence of the original designer.

EDUCATIONAL SIGNIFICANCE

More schools would include economics education if the criteria listed in the Purposes could be met. As stated in the Introduction, writers note the pessimistic attitudes of the public toward the free-enterprise system, although more research is needed to determine why and at which age those negative attitudes develop (Metzner and Sims, 1978). Developing and presenting motivating, relevant programs of economic education in the elementary schools may help students develop a better understanding of the political-economic system; not with the intention of having them accept the system in total, but to help them see that they do not have to be helpless victims of the economic processes. An applied economics program can aid students in actively relating how business and government affects them or assists them in making decisions. The students can also examine their own individual decision making processes. Teachers are more likely to offer more time and effort in teaching economics if they can follow a simple program that they are capable of following, that is fun to implement, and that they do not have to force upon their classes.

LIMITATIONS

The program designed in this study is intended to be used as a general guide, not a step-by-step approach to teaching economics in the elementary school. The guidelines are not planned to be followed in a sacred, lockstep sequence. Indeed, both Stoll (1972) and Ellis and Glen (1977), in their suggestions for designing and implementing simulation games, stated that a good game has to be flexible and responsive to each learning environment. The simulations must be able to be modified. The subject matter deals mainly with upper elementary and middle school abilities. Adaptation of the game to lower grade levels and to different schools will depend upon the efforts, desires and abilities of the teachers and the students. The Game's main purpose is to serve as a "jumping-off point" for ideas.

Although an attempt has been made to design the game so that other teachers could implement it, the author realizes that any simulation game works best when the designers of that game are present with their enthusiasm, with their overall knowledge of the concepts involved, with a feeling for where the game is going, and with the confidence that the game will work for them. The game has been designed to serve the author's desires first. This problem emphasizes the need for each individual teacher to modify

and adapt the game's general ideas--to use the game plan as a starting point for a proliferation of one's own ideas.

The economics guidelines are only one part of the total simulation game experience. An objective evaluation of the stated economic objectives is made more difficult because they are part of a whole learning system; and any evaluation of one part of that system cannot be independent of an evaluation of the whole program, especially in terms of affective objectives.

Another limitation to implementing the program involves the personality of the individual leading the ideas. The personality of the teachers is an important factor in the effectiveness of their methods, especially in the use of simulation games. Setting up this program will demand extra time, effort, and enthusiasm on the part of the teacher.

DEFINITIONS

Source: Dictionary of Education. Good, Carter V., Editor. McGraw Hill, New York, 1973.

economics. The branch of social study that deals with the production, distribution, and consumption of commodities having exchange value and with the social phenomena arising from such activities.

economic education. Broad term for all education that is aimed at increasing the individual's understanding, knowledge, and appreciation of the economic structure of modern life; includes business, consumer, and distributive education as well as the study of such areas as economics, economic geography, banking, finance, and foreign trade.

simulation. In learning and training, making the practice and materials as near as possible to the situation in which the learning will be applied.

simulation game. Specially designed activities providing opportunities to practice certain components of life itself by providing a set of players, a set of allowable actions, a segment of time, and a framework within which the action takes place; this leads students to active assimilation of information in order to carry out action toward relevant goals.

CHAPTER II

SIMULATION GAMES AND ECONOMICS EDUCATION

Games and simulations have been only two methods of teaching basic economics concepts in the public schools; they have not been the only two ways. They have not been the panacea of educational teaching methods as some educators have claimed. Indeed, if they are not looked upon as a panacea, they will probably be useful and successful in some classrooms with some students (Thompson, 1971). Yates (1978) in quoting Metre, has argued that educators should stop looking for the best economics teaching method and begin looking for more flexible learning systems, which use several different methods that fit the characteristics of the students, teachers, goals, and subject matter.

The proponents of simulation games have provided a number of arguments for using this method of teaching. One of the primary reasons given for using simulation games has been that they are more motivating (Orbach, 1979; Rogers and Kysilka, 1970; and Thompson, 1973). Games are fun and exciting to play (Kachaturoff, 1978). Simulation arouses the interest of the student in the subject matter. If the game is played before the discussion-lecture, the possibility is greater that the interest will carry over into the more passive presentation of the economics concepts. The students

will be more capable of understanding the concepts before they are presented in the lecture. Orbach (1979) provided examples of studies that indicated that simulation games have done a much better job creating motivation than other instructional techniques. He added, however, that the common reason for justifying games was inadequate because no one ever defined motivation or explained how motivation led to enhanced learning. He reasoned that motivating behavior is goal directed; that it is directed towards reducing a need. Experiencing a need serves as a motivator, then. Orbach felt that simulation games possessed that motivational power. The structure of the games create different needs in different students and they provide an adequate setting in which the students can attempt to reduce those needs.

A second, similar justification for using simulation games has been that the games make learning more relevant (Ellis and Glen, 1977; Boyer and Smith, 1978; Garman, 1979; Orbach, 1979). They have provided an opportunity for transference of learning. Boyer and Smith felt that it was difficult for students to relate the information they got in an economics classroom to the "real world" where they will have to make decisions based upon what they learned in that classroom. Simulation games have provided the next best thing to providing opportunities to make decisions. They encouraged educators to provide ways to help students learn knowledge by "acquaintance rather than knowledge by description" (p. 102). The world in which students live should

be the laboratory for economics education and proponents say that simulation games have provided the best alternative to the real world.

The third related reason for using simulation games has been that "students learn best by doing," an often repeated theory in education (Ellis and Glen, 1976; Robinson, 1978; Armento, 1978; Kachaturoff, 1978; Orbach, 1979). The simulation games have provided a method by which to bridge the gap between the concrete and the abstract in economics education. Ideas must be actively manipulated to be retained effectively. Students may be interested in a particular topic and listen to the lecture or discussion intently, but their learning will not become "internalized" or become a part of their conceptual framework until those ideas are manipulated or put into practice. Proponents of this argument emphasize the assumed advantages of active learning as opposed to passive, lecture-discussion learning. Armento (1978) wrote that, "Most studies which have examined the student response variable during concept instruction have found that the greater involvement of the learner in the verbal and physical manipulation of the concept, the greater the ease of concept attainment (p. 18).

Other reasons presented for justifying the use of simulation games in economic education have been: 1) Games enable the students to become more totally involved in their learning (Fransecky and Trojanski, 1971; Kachaturoff, 1978). Simulation promotes more interaction among the

students and may allow a more passive, dependent student to become more actively involved in group interaction. 2) Simulations provide more immediate, relevant feedback (Fransecky and Trojanski, 1971). 3) Games can help bridge the gap between purely fact oriented learning and affective learning (Thompson, 1971). 4) Simulation games help transcend disciplinary boundaries. Subject matter from the entire curriculum may be interrelated (Ellis and Glen, 1977). 5) Games and simulations give teachers more flexibility or opportunities to begin at each student ability level (Cobbs, 1976; Fox, 1978; Orbach, 1979).

Most of the reasons provided above have been based on subjective assumptions. Very little scientific research has been completed to test the effectiveness of the simulation games as compared to other methods and as to meeting prestated objectives. Most evaluations of the games have been done in what Robinson (1978) would term as the narrow approach: The games author watched the game and declared it a success or a failure. Fransecky and Trojanski (1971) have cited other reasons for not using simulation games: 1) The games are "just another gimmick" for classroom instruction. 2) Games are too complicated for anyone other than the designer to be enthusiastic about them. 3) Simulations are too much "fun and games" without substantive content. 4) Some educators are worried about what happened to the teacher as a leader and authority. 5) Games are too noisy and disruptive to be handled by many teachers. Horn and Zuckerman

(1972) cited some of the above reasons and more for why games are being produced faster than they are being introduced into the classroom: 1) Teachers are afraid to try the games without more experience or instruction. 2) The games depend too much upon student cooperation. Teachers are afraid of losing control 3) Too much planning is left to the game's process. The goals are difficult to measure objectively.

Ellis and Glen (1977) provided more objectively obtained support for using games and simulations. They began their research on teaching methods in economic education by noting that research has shown that elementary age students can learn basic economics concepts, yet few investigations have been done on what methods work best in a given situation. In their study they divided 78 intermediate grade students from a suburban school district into four groups: 1) a "contrived problem-solving" group which studied economics by using games and simulations; 2) a "real problem-solving" group which manufactured and marketed denim book covers; 3) a "discussion-workbook" group used a commercial economics workbook; 4) a control group which studied no program in economics. They used tests designed by the JCEE to test for student knowledge of economic concepts and how well they could use their knowledge in problem-solving. They found that the students in the real problem and contrived problem groups scored significantly higher on the tests of knowledge than did the discussion-workbook and the control group. They concluded that students who are actively engaged in manu-

facturing a product learn more about economic principles than do students who are involved in more passive learning techniques.

Cassuto (1980) provided another bit of support for the effectiveness of simulation games in elementary school economics education. The purpose of his study was to test the effectiveness of a mini-society program developed by Marilyn Kourilsky in the Los Angeles Public School System. Cassuto's subjects were students in fifty-six Oakland and San Jose art classes. Nine of those classes were designated as a control group. They were tested for economics knowledge, but did not participate in the mini-society. Cassuto did not report what type, if any, of economics instruction the control group received. All the classes were given a pre and post test of economics competency. The results showed that that the mini-society students improved their economic knowledge significantly more than did the control groups, although the mean scores only differed by 4 per cent (mini-society: 59%, control group 55%). Cassuto, exemplifying the problems of objective evaluations of simulation games, went on to list the other benefits of playing the game: Improved self-esteem, increased understanding of math, gaining greater understanding of the nation's economic, political and judicial systems.

The objective evidence for the value of teaching economics via the simulation game approach is meager. Most of the justification has rested upon the subjective evaluations of

students, parents, and teachers involved in the games.

CHAPTER III

METHOD

Description of Population

The age groups to which this game was oriented were 44 seventh graders and 42 sixth graders at Sterling Middle School in the Eastmont School District in East Wenatchee, Washington. The school has a population of approximately 500 students and is located in a predominantly middle class community. The students generally were academically talented. They were selected by former teachers as having the most academic or creative potential. They were in three separate classrooms--one sixth grade, one seventh grade, and one sixth/seventh combination. They were able to work on the Cities for approximately three 45 minute periods per week.

Evaluation Design

The students were given a pre-test and a post-test of economic terms and concepts. The same test was given both times. One part of the test consisted of twenty-eight terms frequently used in economics education. The students were required to match the terms with the correct definitions. The second part of the test consisted of thirty-six multiple choice questions that concerned broad economics concepts.

The tests served two purposes: 1) They served as indicators of which economic terms and concepts the students acquired through the simulation games-lecture-discussion process; 2) They served as indicators as to which concepts were not covered adequately, or which questions were not adequate for the abilities of this age level. Since there are no comprehensive economics tests developed for this age level, a secondary purpose of this project was to begin a test that would reflect the students' ability and be relevant to the simulation game being produced.

Procedure

The writer modified and expanded a simulation game that he had developed for third and fourth graders to supplement the teaching of a wide range of subject matter. The game's emphasis was directed towards economics education. An outline of basic economics principles was established to help focus the game's direction and to serve as objectives for student learning. The concepts for the outline were taken directly from the Joint Council of Economic Education's A Framework for Teaching Economics: Basic Concepts (1977) and from Strategies for Teaching Economics: Part II Intermediate Level (1978). In most instances, the concepts and definitions were copied verbatim, or they were combined from the two guides and placed under one generalization or subtopic.

Many of the forms and rules were developed as the game progressed from December to June. As the game developed, the

teacher would stop whenever an appropriate situation arose that would invite a discussion of one of the economics concepts and/or vocabulary terms. Suggested discussion questions and activities were written for each economics generalization. The students recorded the economics terms and the economics concepts in a notebook as they were ing discussed.

Implementing the Game

The Appendix to this project contains the materials that were developed to implement the Game. The "Rules of the Game," the part of the project that is handed to the students at the beginning of the game, is presented first. These Rules include both instructions and the responsibilities for the students, and also the necessary forms needed to play the Game. After the rules, is a general, sequential list of procedures that the class followed in order to build the City, play the Game, and learn selected economics concepts. This list is followed by an outline of the major economics concepts and terminology that were presented via the Game format. With each concept and "generalization" is a selection of discussion questions and City activities that facilitate the learning of those concepts. The last sections of the Appendix contain two tests, a matching vocabulary test and a multiple-choice test, that were developed to evaluate the acquisition of content related to the concepts presented. An answer key follows the test, followed by the scores and

results of the students who participated in this project.

The scores may help test designers determine which questions may be too difficult for the intermediate-middle school grade level. Recommendations concerning the test results are made at the end of the Appendix.

CHAPTER IV

RECOMMENDATIONS

1. As stated previously, game designers tend to develop simulation games that appear to be too complicated, and involve too much extra time and work to get initiated into many classrooms. This game was no exception. As emphasized in the "Limitations", instructors should use this outline only as a starting point for their own ideas. A few individuals have already implemented the basic game format in their classrooms, and expressed enthusiasm for playing the game with future classes. Their positive, subjective evaluations have been based upon parent, teacher, student, and administrative responses. Each teacher expressed how much fun the game was for both the teacher and the students, even though extra time was required. Several teachers have expressed interest in trying the game, but are hesitant because they do not know where to begin or if they can handle such a large project. The writer suggests that once the teacher sets up the tables and gets the property grids lined out, the game will naturally develop from there. The teachers should not try to follow or try to include all of the activities presented here. They should begin slowly and progress at a pace only they can accommodate.

2. After examining other simulation games for elementary economics education, the writer feels that shorter games such as The Book Company (1980) and Classroom Marketplace (1979) developed by the Washington State Council on Economic Education, may be more effective, in terms of simplicity, to teach the basic economic concepts. However, in terms of teaching the whole curriculum and involving such concerns as math, science, consumer education, social studies, language arts, and classroom discipline, this game may have broader value.

3. Further testing is recommended to compare the value of teaching economics using this game as compared to using other methods such as total lecture-discussion, shorter simulation games, or actual business ventures.

4. The games value in teaching economics concepts would be severely diminished without including the discussion questions. The teachers should be familiar with all of the basic economic concepts that they wish to present so that discussion of them may be spontaneous whenever an appropriate situation occurs in the City. The discussion does not have to progress in the same order as presented in the project.

5. The value of students devising their own vocations should be emphasized. The students' ability to see a potential market and then develop it add more incentive and variety into the game. Gambling was an example which provided many opportunities for learning. The class was able

to see the value of increased revenue for the government; was involved in making economic decisions that conflicted with their own values system; witnessed how crime in the form of tax report cheating was involved with gambling; saw the results of competition when other casinos opened; and were involved in court proceedings.

6. Much of the incentive for playing the game was based upon the students' desire to make more money. To many individuals, merely the challenge to see how much they could earn was enough incentive. However, the writer recommends that the money be given some real value. Having an auction at the end of the game, or at designated time intervals, where the students use their "play" money to bid for real merchandise has been a good incentive.

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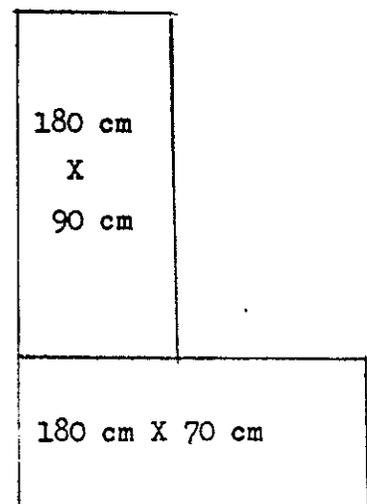
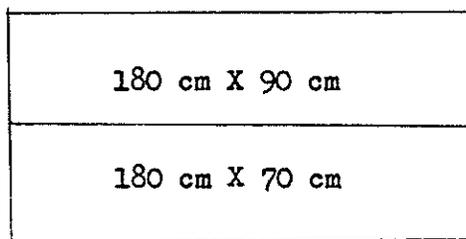
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SEQUENCE

SUGGESTED SEQUENCE OF ACTIVITIES

This sequential list of procedures is a suggested plan for building the City and for implementing the Rules of the Game. The order in which the activities are presented is what the author attempted to follow; however, one who is unfamiliar with the game may have difficulty following this exact sequence. The purpose of this list is to provide general directions, not a step-by-step guide. The first two to three months are devoted towards building the City, becoming familiar with the necessary forms, buying property, and choosing vocations.

1. The first, most important step, is to read the "Rules of the Game" and the "Explanations of the Forms." Once the teacher has become familiar with those instructions, he/she should be able to determine what is needed to be done in order to get the game started.
2. Make the WHEEL and duplicate numerous copies of each form and a copy of the Rules for each student.
3. When the students enter the classroom they see two tables that have been placed next to one another and covered with cardboard and white butcher paper. Countertops and floors have also been used. The topography is more interesting if the tables are of different heights. The tables have been arranged in the following patterns:



4. The goals-purposes of the project are explained to the students. At the same time the "Rules of the Game" are passed out to each student with the instructions to read and study them for a few weeks. The students are instructed to think about what job they would like to have in the City. A date for choosing the job and an explanation-discussion of the rules should be set. The students are asked to read the rules with their parents and to select a prioritized list of jobs that they know for certain they want.
5. The students grid the table tops into decimeter squares (10 cm X 10 cm squares). They are also given graph paper and asked to draw the outline of City on the paper such as is illustrated on forms #18 and #19. Replicas of these maps are then made on tagboard or posterboards. At least four large maps are needed. They will be used to make a topographical map, a zoning map, a legal property ownership map, and a planning map (for roads, water lines, sewage lines, and electrical lines).
6. A geology unit is presented in the science class. The class studies the theory of plate tectonics, the rock cycle, and forces that change the face of the Earth. This unit is not necessary to the Game, however.
7. The students then build the topography and the underground rock strata for the City. Paper-mache' is used for the mountains. Chenille or toothpicks and green tissue are used for trees and bushes. Brown paint covers the paper mache. A light dusting of sawdust is spread over the wet paint and then painted green with spray enamel to simulate grass. Elmers glue and water mixed with sand is used to construct a river bank or channel. The channel is then filled with plaster of paris and painted blue. Lakes and oceans are made the same way as the rivers.
8. Topographical maps are made on both small, individual student maps and on the large wall maps. The students outline the outer edge of the City on graph paper, outline the edges of the mountains, cliffs, rivers, and lakes. They measure the elevations of several points in centimeters from a given low spot on the City. The areas with the same range of elevations are then colored according to a given legend (e.g. Green= 5-10 cm above sea level).

There can be two approaches to the topographical construction. The teacher may allow the students to build mountains, valleys, rivers, lakes, etc. wherever they wish; or the teacher may provide a list of geological features (e.g. glacial valley, waterfall, horst, fault, dike, caldera) that the students must portray on the City. The underground has usually been made of sections of cardboard covered with butcher paper that extend from the top of the table to the floor. Layers of rock (with a description of each kind) and water tables are then colored or painted on the sections.

9. A social studies unit on Longitude, Latitude, Townships, Range, Sections, and Lots is presented. An explanation of form #9 is also given. The grids on both the students' individual maps and especially the large wall maps are then given Township, Range, and Section designations.
10. The teacher (Bank) opens the City to purchase of the property. A student may buy any square and quantity of squares on the City (The land has not been zoned yet. By allowing the students to purchase land before zoning, there is a greater likelihood for more lobbying, controversy, and participation in the zoning process). In order to demonstrate the need for money and the concept of bartering, the Bank allows the students to purchase a lot with whatever merchandise they have to offer in trade (Perhaps by agreement to complete an assignment, or by demonstrating positive behavior, or by getting a certain grade, or by helping another individual). The Bank may be very arbitrary in its dealings. After a week or two, a discussion on the need for a common medium of exchange is followed by an announcement of a contest--that of providing a design for the money. The whole class votes on the best design. The winner becomes the "mint" and designs templates (ditto masters) of the money (forms #20 and #21).
11. As the students buy the property, they write their names in the appropriate squares on the wall map designated for that use.
12. Each student is given an initial cash allotment, based upon whatever criteria the teacher wishes. About 600-700 units of money is a good allotment. A non-taxable allotment is then given at the end of each following month. At this time the class should study the purpose of money, the function of banks, loans and interest, and budgeting money.

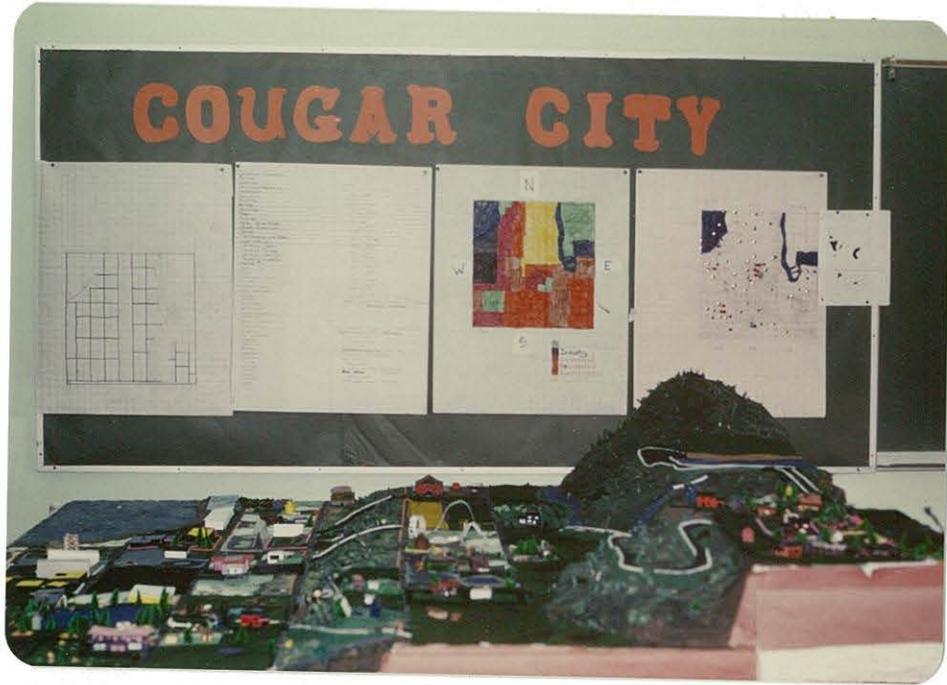
The student then become familiar with the Transaction Sheet (form #3), the Check Forms (#7), the Check Register (#8), the Receipt Forms (#6), and the Loan Forms (#10). The students will use the money to buy more land and to pay the initial loan costs on any loans they wish to make for land, homes, and a vocational franchise. The loan costs are figured by dropping one place value off the end of the loan request. The monthly installments on the loans are figured by dropping two place values from the end of the loan. A \$1000 loan, for example, would cost \$100 in cash to get and would cost \$10 for the monthly payments.

13. On a preannounced day, when everyone is present, the students choose their vocations. The rules: (a) Every student gets one job before anyone starts bidding for a second or a third job. (b) If a person wants a job that no one else wants, she/he gets that job without having to bid. If more than one person wants a particular job, then the individual who bids the highest above the stated franchise cost (in open bidding) gets the job. (c) Some students will want to form a partnership. This may be allowed, but the game is more effective if students have at least one job that they own by themselves. (d) Individuals must be able to pay the loan costs in order to secure the job. (e) The teacher may require a report from each student that researches the requirements, functions, responsibilities, salary, and investment costs of each job in the real community.
14. The students choose a Planning Commission with an odd number of people. A unit on government and legislative procedure may be introduced here. This Commission is the representative decision making body of the class. Each member of the Commission is also a chairperson of one of the committees listed in the "Rules." Every member of the class should then be appointed to one of the committees. The powers of the Planning Commission and the committees can be established by the class. Usually the committees make only recommendations and the Planning Commission makes the final decisions on such things as zoning, rezoning, road construction, government contracts, purchases, and governing laws (They may even want to change rules in the game). The first most important function of the Commission is to make a land zoning map--by the process of listening to and looking at submitted plans for zoning from interested parties (which is usually everyone). Anyone who submits a plan should have clear arguments to support her/his version.

15. Get each committee started on their tasks.
16. The above tasks are usually accomplished by the time Christmas vacation arrives. The most important recommendations are, "Take your time" and "Modify."
17. At the beginning of January, the Bank begins to sell houses. The students must become familiar with the "Distribution of Building Industry Income" form (#4) before purchasing a home. The form must be completed before the student gets the loan. Once the student gets the loan, he/she must distribute the money to the vocations listed on the form. Reemphasize the need for keeping accurate Transaction records.
18. In the same month that the Bank begins selling houses, the WHEEL should be spun at least once a week. At the end of this same month and at the end of all the following months, the government workers are paid their salary from the Bank.
19. At the end of the month in which houses become available, the class is shown how to redistribute their Incomes (by adding the Income columns on their Transaction forms) on form #5, "Redistribution of Monthly Incomes." The government jobs, the WHEEL jobs, and the building industry will redistribute their income first. Then those jobs listed on form #5 will redistribute their money after they have secured an adequate income. It is important that the students mark the places on their transaction sheets where they finished adding their incomes, so that they do not add the figures again in the next month's redistribution.
20. The loan collector and tax collector should be busy collecting payments at the end of each month.
21. After one or two months, open all the jobs to any one who wishes to pay the franchise costs. The procedure is described in the Rules (****). This will open the Game to more free-market competition.
22. Work on building government projects. Roads, sewer lines, water lines, and electrical lines need to be constructed before any houses are placed on the City. Roads are usually cut out of black posterboard and glued onto the City according to the road planning map. Water and sewer lines

can be made out of thin strips of construction paper or with different colored pipe cleaners. Green or brown felt works well for grass and land. Glue and water mixed with sand works well for land cover or for road beds in the mountains. The students will come up with endless ideas for construction.

23. From this point, the Game proceeds in any direction that the class and the teacher desire. There are usually more ideas than time to implement them.
24. The key word, once again, is "ADAPT." Use this game as a jumping-off place for a proliferation of ideas. The general idea and format for this game has been adapted for third, fourth, and fifth grade use.



Sixth Grade City



Seventh Grade City



Residential Close-up



Property Zoning Map



Papier-mache Mountain
Property Grids

THE RULES

THE GAME

A. OBJECTIVE

1. Each player will be given a set amount of money at the beginning of the game. The set amount may be altered by two factors:
 - a. The quality of the work you have produced thus far. A's and extra credit work will merit extra pay.
 - b. The number of blank spaces in the grade book. A certain amount will be deducted for assignments that were not completed.
2. Your goal: To invest this money in land, a home, and business ventures--trying to increase your "net worth" by the end of the game in June.
3. At the end of the game we will give you "cash" for your total net worth. With that cash you may bid for "real" merchandise in a general auction. The more cash you have, of course, the more likely you are to get the prize you want.

B MONETARY SYSTEM

1. Our money will be called _____.
2. An individual from each class will be selected and paid to mint money for smaller cash transactions.
3. In most cases, large money transactions will be handled by the Bank on record forms and by each individual on his "transaction record" or his "check register."
4. Loans: Everyone will probably want to borrow money from the government controlled bank in order to get started.
 - a. Interest rates on home, property and personal loans will be 15% (compounded).
 - b. Interest rates on business loans will be 10%, subject to rapid change.
 - c. Interest rates and loan payments will be pro-rated for a 5 - 30 year period, depending upon the size of the loan. This exercise will be done to show you the full amount you would have to pay if you paid the loan in full.
 - d. Your monthly payments in this game will, in most cases, be determined by subtracting two place values from the end of the rounded off amount of your loan (e.g. If you borrow \$125, your monthly payments will be \$1).
5. Savings: If you wish to save money in the Bank, the Bank will pay you 7% interest, computed weekly.

C. YOUR INCOME

1. Your main source of income will depend upon the vocation you choose. About 80% of this portion of your income will be redistributed to other vocations and to the government in taxes.
2. Each month your teachers will pay you an allotment of one _____ per class period per day (7 each day, 35 each week). The payment of this monthly allotment carries with it the assumption that you will complete all of your daily assignments and that your behavior will be exemplary of mature sixth and seventh grade students. Any unsatisfactory behavior or any late assignments will result in "fines," and a reduction in your allotment. This money will be tax-free and paid to you the last week of each month. Since most of the income from the vocations you choose will be redistributed, this monthly allotment will be your main source of capital for your investments.
3. Extra credit work, continuous outstanding behavior and effort, or "A" quality assignments may result in bonus payments and an increase in your allotment.

D. PROPERTY

1. Sections are 100 square centimeters each.
2. Each section is divided into 4 lots.
3. The price of a lot will begin at 1000 _____. Lots in more desirable locations will cost more.
4. Initially, all land will be owned by the government, which will determine which lots of the city are for sale.
5. Lots will be sold to the first buyer. If more than one player wants a particular lot, the highest bidder will get it (closed bids).
6. A planning commission will determine the residential, industrial, agricultural, commercial, government, and recreational zones of each city.
7. Farmers must buy a minimum of 6 sections (24 lots) before they can begin business. They may build their homes and outbuildings on one of those lots. The amount of land needed by other businesses will be listed under each vocation.

E. GOVERNMENT

Initially, the government will be a dictatorship or "Big Man" government. The teacher will be the main decision maker. Eventually if the population shows that they can responsibly handle more decisions, we will slide into a more democratic type of government with a constitution. At first, we may attempt to utilize an "open town meeting" format or a planning commission to aid the "dictatorship" in their decisions.

F. COST OF LIVING

1. In the beginning your monthly income will become "outcome" as follows:

Taxes.....	20%	
Food.....	30%	
Clothing.....	5%	
Transportation.....	10%	(R.R. 2%, Trucking 3%, Fuel 5%)
Utilities.....	10%	
Recreation.....	5%	
TOTAL.....	80%	

- The other 20% will be used to pay your loans, to save, to purchase personal items, or to invest. The above figures do not apply to your monthly allotment described in C-2--your monthly allotment will be exempt from the above redistribution.

G. VOCATIONS

- Initially all jobs may be secured by open bidding. High bidder gets the job. Of course, if no one besides yourself wants the job, then you don't have to bid for it. Most of you will probably have more than one job; however, each person must have secured a job before anyone can bid for a second.
- Ten vocations are related to the housing industry. Houses will cost 5000 _____ for a 3-bedroom-one story with garage, and 3000 _____ for a two-story building. The cost of business establishments will average about 3-4000 _____, the cost depending upon size. The costs are already figured in the investment figures--your teacher has a list of the exact costs for each business building--these figures will be needed later to calculate the distribution of the costs to the Housing vocations. Following is a list of the ten jobs with their investment costs and the percentage of each building cost that they receive.
 - Carpenter-Contractor**
 - Investment cost: 20,000
 - Property needed: 1 section (4 Lots) in Commercial Zone
 - You must hire at least one employee--these wages are tax deductible for you.
 - Income: 20% of the cost of each building.
 - Plumber**
 - Investment: 5000
 - Property needed: 1 lot in Commercial Zone
 - You must hire at least one employee--tax deductible
 - Income: 5% of each building
 - Electrician**
 - Investment: 5000
 - Property needed: 1 lot in Commercial Zone
 - You must hire at least one employee--tax deductible
 - Income: 5% of each building
 - Hardware and Appliance**
 - Investment: 3,000
 - Property needed: 1 section in Commercial Zone
 - You must hire at least one employee
 - Income: 20% of each building

- e. Landscaper
 - (1) Investment: 5000
 - (2) Property needed: 1 lot in Commercial Zone
 - (3) You must hire at least one employee--tax deductible
 - (4) Income: 5% of each building

- f. Lumber
 - (1) Investment: 20,000
 - (2) Property needed: 2 sections in Industrial Area
 - (3) You must hire at least one employee--tax deductible
 - (4) Income: 20% of each building

The sixth grade city will have to buy their timber from the seventh grade, since the sixth grade timber resources are not adequate. The 20% will go into the seventh grade treasury since most of the forest land is government owned.

In return, the seventh grade must purchase their fuel and most of their energy supply from the sixth grade, since the sixth grade will have the oil and gas deposits. 25% of the taxes collected by the seventh grade government will go into the sixth grade treasury. This amount may increase, depending upon how much it costs the sixth grade for exploration-recovery costs.

- g. Furniture
 - (1) Investment: 15,000
 - (2) Property needed: 1 section in Commercial Zone
 - (3) You must hire at least one employee--tax deductible
 - (4) Income: 15% of each building

- h. Trucking
 - (1) Investment: 30,000
 - (2) Property needed: 1 section
 - (3) Partial Incomes: 7th Grade--2.5% of housing costs for both 6th and 7th
6th Grade--2.5% of the total energy costs (oil) for both 6th and 7th grades

- i. Railroad: Government subsidized
 - (1) Investment: 30,000
 - (2) Property needed: Land will be purchased by the government when the planning commission decides the location of the R.R.
 - (3) Income: Same as Trucking

- j. Architect
 - (1) Investment: 5000
 - (2) Property needed: 1 lot in Commercial Zone
 - (3) Income: 2.5% of each building

- k. 2.5% of all building costs goes to the Bank for closing costs, building inspection, taxes, etc. This money will be paid to the Building Inspector.

*** At a predetermined, announced time, the above building industry vocations will receive their incomes in a different manner. They will be able to set their own prices for their goods and services. They will follow this procedure:

- a. Each vocation will receive a rubber stamp representing the costs of investing in their franchises and the costs of their productive resources.
 - b. Carpenter and Lumber Industry: The lumber industry will buy their timber (represented by the cardboard used for the construction of our buildings) from the Bank, which will determine the costs each month. The carpenter must then buy their lumber from the lumber industry at a price determined by the lumber industry.
 - c. The remainder of the jobs in the building industry must pay for the use of their stamps each month--at a price established by the Bank.
 - d. Anyone who wishes to purchase a home or other building must take a building distribution sheet to each member of the building industry to get the sheet stamped by each of those vocations. Those people holding the franchises (stamps) may charge any amount agreed upon between themselves and the buyers.
3. Other Government-Related Jobs: Financed with tax money
- a. Policeman
 - (1) Investment: 0
 - (2) Income: 180 per month + medical, dental, and life insurance
 - b. Judge
 - (1) Investment: 4000
 - (2) Income: 250 per month + medical, dental, life insurance
 - c. Fireman
 - (1) Investment: 0
 - (2) Income: 180 per month + medical, dental, and life insurances
 - d. Parks Department
 - (1) Investment: 2000
 - (2) Income: 200 per month + medical, dental, and life insurances
 - e. Forest Supervisor
 - (1) Investment: 2000
 - (2) Income: 200 per month + medical, dental, and life insurances
 - f. Teacher
 - (1) Investment: 2000
 - (2) Income: 180 per month + medical, dental, and life insurances
 - g. Maintenance and Roads
 - (1) Investment: 0
 - (2) Income: 180 per month + medical, dental, and life insurances
 - h. Loan Officer
 - (1) Investment: 2000
 - (2) Income: 200 per month + medical, dental, and life insurances
 - i. Utilities-Water
 - (1) Investment: 2000
 - (2) Income: 180 + medical, dental, life insurances
 - j. Utilities-Sewage
 - (1) Investment: 2000
 - (2) Income: 200 per month + medical, dental, and life insurances

- k. Utilities-Electrical
 - (1) Investment: 2000
 - (2) Income: 200 per month + medical, dental, and life insurances
- l. Building Inspector
 - (1) Investment: 2000
 - (2) Income: 180 + medical, dental, life insurances
- m. Banker #1
 - (1) Investment: 2000
 - (2) Income: 250 per month + medical, dental, and life insurances
- n. Banker #2
 - (1) Investment: 2000
 - (2) Income: 250 per month + medical, dental, and life insurances
- o. Mailman
 - (1) Investment: 0
 - (2) Income: 180 per month + medical, dental, life insurances
- p. Communications Technician
 - (1) Investment: 2000
 - (2) Income: 180 per month + medical, dental, life insurances
- q. Tax Collector
 - (1) Investment: 2000
 - (2) Income: 250 per month + medical, dental, life insurances
- r. Chemical Engineer
 - (1) Investment: 2000
 - (2) Income: 200 + medical, dental, life insurances
- s. Game Department
 - (1) Investment: 2000
 - (2) Income: 180 + medical, dental, life insurances
- t. Garbage
 - (1) Investment: 0
 - (2) Income: 180 + medical, dental, life insurances
- 4. Jobs Related to the Monthly Necessities of Living
 - a. Food Store
 - (1) Investment: 50,000
 - (2) Property needed: 1 section in Commercial Zone
 - (3) Income: 5% of all monthly incomes
 - b. Food Processor
 - (1) Investment: 50,000
 - (2) Property needed: 1 section in Industrial Park
 - (3) Income: 5% of all monthly incomes
 - c. Farmers (4--Fruit, grain, livestock, vegetable)
 - (1) Investment: 50,000
 - (2) Property needed: 6 sections in Agricultural Zone
 - (3) Income: Each farmer receives 5% of all monthly incomes
 - d. Clothing Store
 - (1) Investment: 50,000
 - (2) Property needed: 1 section in Commercial Zone
 - (3) Income: 5% of all monthly incomes

- e. Recreation
 - (1) Investment: 50,000
 - (2) Property needed: 1 section in Commercial Zone
 - (3) Income: 5% of all monthly incomes
- f. Fuel Distributer
 - (1) Investment: 10,000
 - (2) Property needed: 1 section in Industrial Park
 - (3) Income: 5% of all monthly incomes
- g. Trucking
 - (1) Investment: 30,000
 - (2) Property needed: 1 section in Industrial Park
 - (3) Income: 3% of all monthly incomes
- h. Railroad
 - (1) Investments: 30,000
 - (2) Property needed: None--Government will purchase land
 - (3) Income: 2% of all monthly incomes.

5. Jobs That Depend Upon the WHEEL OF FORTUNE

The Wheel will be spun once each week. The vocations are listed with their investment costs and with the consequences on the Wheel that provide the income for those jobs. Since these incomes are usually supported by a larger population than we have, the bank will "subsidize" them by equaling the amount they receive from the wheel each week (e.g. If the Doctor receives 100 _____ in one week, the Bank will also give the Doctor 100).

- a. Doctor: 10,000 investment and 1 lot in the Commercial Zone
 - (1) You break a leg falling off your roof. Pay the doctor 20.
 - (2) You spend two days in the hospital undergoing tests to find out why you are dizzy. Pay the doctor 40.
 - (3) You have an appendectomy - 60.
- b. Dentist: 10,000 investment and 1 lot in the Commercial Zone
 - (1) You need orthodontic work - 50.
 - (2) You have two teeth filled - 6.
 - (3) You have a gold cap placed on a molar - 20.
 - (4) You chip a tooth - 15.
- c. Attorney: 4,000 investment and 1 lot in Commercial Zone
 - (1) You need an attorney to defend you in a lawsuit - 50.
 - (2) Your lawyer defends you in traffic court - 20.
- d. Hotel-Motel: 20,000 investment and 1 section in Commercial Zone
 - (1) You take a vacation--motel bill - 30.
 - (2) Your family takes a weekend trip to the Big City - 15.
 - (3) You take a short vacation into the mountains - 30.
 - (4) You visit Dizzyland for 1 week - 20.
- e. Restaurant: 15,000 investment and 1 section in the Commercial Zone.
 - (1), (2), (3), (4) You dine out - pay 5.
 - (5) Wedding Reception - 15.
 - (6) Dinner Party - 20.
 - (7) You treat a client to lunch - 5.
- f. Mortician: 10,000 investment and 1 lot in Commercial Zone
 - (1) You pay for the cost of a funeral - 150 (This consequence counts only twice a month--every other time or we may flip a coin each time).

- g. Veterinarian: 7,500 investment and 1 lot in Commercial Zone
 - (1) Your dog needs preventive shots - pay 5.
 - (2) Your dog is repaired after getting run over - 15.
 - (3) Your cat gets sick - 5.
 - (4) Your cat needs a broken leg mended - 10.
 - (5) Your expensive bird needs treatment - 10.
 - h. Pharmacist: 5000 investment and 1 lot in Commercial Zone
 - (1), (2), (3), (4) Your bill from the Pharmacy arrives - 10.
 - i. There will be two other consequences on the Wheel that will cost you money:
 - (1) Your home is broken into and your stereo stolen - pay 50.
 - (2) Your home burns to the ground. Do you have insurance?
 - j. Consequences on the Wheel that pay you money:
 - (1) You win the state lottery - 500.
 - (2) You sell antiques worth - 50.
 - (3) You sell a painting worth 100.
 - (4) You win prizes on a quiz show - 150.
 - (5) You win money in Las Vegas - 100.
 - (6) You are remembered in a will - 150 - pay the attorney 20 and the government 30.
 - (7) You find 10 on the sidewalk
 - (8) An income tax rebate arrives - 20.
 - (9) Your grandmother sends you 15.
 - (10) You receive a ring worth 50.
 - (11) You find 10 in a coat that you don't wear very often.
 - (12) You sell a car worth 80.
 - (13) You win a chance at the "money grab"
6. Optional Vocations That Depend Upon Your Economic Skills
- a. Insurance
 - (1) Investment: 3000
 - (2) Property needed: 1 lot in Commercial Zone
 - (3) Income: 30% of the insurance premiums you sell

Suggested Rates:

 - (a) Medical-Health - 10 per month for each individual
 - (b) Home (fire) - 3 per month (5000 _____ home)
4 per month (8000 _____ home)
 - (c) Dental - 3 per month
 - (d) Life - 2 per month
 - (e) You may include the cost of medicine in your medical insurance or you may offer another separate policy.
 - (f) These rates are only suggested. Charge what you think is appropriate.
 - (4) Since insurance companies need thousands of paid premiums to make a profit, our insurance company will be government subsidized and the Bank will pay the consequences of the insured. The Insurance will pay all those consequences listed under Dentist, Doctor, Pharmacist, and Mortician, provided that the player has paid his premiums.
 - b. Home Security
 - (1) Investment: 5000
 - (2) Property needed: 1 lot in the Commercial Zone

- (3) Income: You would have to manufacture and market some type of security system for homes that would prevent break-ins. If the owner buys your product, then he would not have to pay consequence i-2 on the Wheel if he landed on it.
- c. Car-Truck Dealership
- (1) Investment: 300,000
 - (2) Property needed: 1 section in the Industrial Zone and 1 section in the Commercial Zone.
 - (3) Income: You would have to design, manufacture, and market automobiles, trucks, and heavy equipment, and buses to sell to various individuals, companies (e.g. Road Construction), and to the government.
- d. Swimming Pools
- (1) Investment: 5000
 - (2) Property needed: 1 section in the Industrial Park
 - (3) Income: You would sell contracts to individuals who wish to have a swimming pool on their property. Negotiate the costs.
- e. Road Construction
- (1) Investment: 100,000
 - (2) Property needed: 1 section in the Industrial Park
 - (3) The government will pay to the lowest bidder, a contracted amount per centimeter to build its roads and highways.
 - (4) There will be a time limit on the completion of the job. You may have to hire someone to help you.
- f. Jewelry Store
- (1) Investment: 10,000
 - (2) Property needed: 1 lot in the Commercial Zone.
 - (3) Income: You would design, manufacture, and market jewelry. Jewelry will inflate in value 10% per week, so it will be a good place to invest your money.
- g. There will be no bidding on the above jobs--the number of franchises are unlimited. Anyone who is willing to pay the investment costs can hold the franchise. The amount of money you make will depend upon your own skills. You set the prices based upon the wants and demands of the community; you may hire as many workers as you wish.
- h. The above jobs are only suggestions. You may start any business that you think may earn you a profit--as long as you pay the investment costs which will be established by the Bank.
- ****At a predetermined, announced time, all vocations will be open and available to whomever wishes to pay the franchise costs. At that time, the prices of goods and services will be determined by those holding the franchises. For example, if some other individual owns a clothing store franchise, one store may try to outsell his/her competitor by charging only 7% of the buyer's monthly income instead of the required 5%.

CHECKLIST OF RESPONSIBILITIES

The following list will serve as a reminder and as a guide to direct your responsibilities and activity in the city.

- _____ 1. Buy all the property you wish. You will probably want at least one lot in the Residential area and one in the Commercial if you have a business. Before you buy or borrow money for land, write the legal description of the location on the deed forms (#9).
- _____ 2. Pay for your vocational franchise. Most of you will have to borrow money from the Bank.
- _____ 3. Buy a house. Complete a Building Distribution (#3) sheet for each house you buy. Buy as many houses as you can afford. Your loans will be placed in your checking account.
- _____ 4. Keep accurate records of all the money you earn and all the money you spend--on the Transaction forms (#2).
- _____ 5. At the end of each month, add all the figures in the "Income" column of your transaction sheet (#2), except for the unearned income figures. Use the total figure to complete Income Re-distribution Forms (#4).
Jan. _____, Feb. _____, Mar. _____, Apr. _____, May _____, June _____.
- _____ 6. Pay the monthly installments on your loans each month. The Bank has a record of all your loans.
Jan. _____, Feb. _____, Mar. _____, Apr. _____, May _____, June _____.
- _____ 7. Pay your taxes and utilities bills figured on form #4 to the Bank each month.
Jan. _____, Feb. _____, Mar. _____, Apr. _____, May _____, June _____.
- _____ 8. If you have a checking account, keep accurate records of the money you deposit or the checks you write on the Check Registers (#5) when you deposit money in the Bank, take your Check Register with you.
- _____ 9. Buy the property for your business.
- _____ 10. Buy the building for your business if you do not work for the government. Be sure to fill in form #3 and distribute the money to the appropriate businesses.

- _____ 11. Government workers build the building associated with your job (i.e. the fireman builds the fire hall) and distribute the costs to the appropriate individuals in the Building Industry. You do not pay for these buildings--the government pays for them with tax money.
- _____ 12. Jobs on the Wheel: keep track of everyone who lands on a consequence that pays you each week.
- _____ 13. Jobs on the Wheel: Determine how much money you make from the Wheel each month and collect the matching money from the government.
Jan. _____, Feb. _____, Mar. _____, Apr. _____, May _____, June _____.

GOVERNMENT COMMITTEES

In addition to the personal responsibilities listed above for each individual and vocation, each citizen of our City will also be a member of a government commission assigned community responsibilities. Our City will function closest to a "command" type of economy where a central authority (your teacher) will at first determine prices and costs, rules and regulations. Your teacher will need some help in governing and will provide for some representative decision making by using a Planning Commission.

The Planning Commission will be composed of five members elected from the class. The Commission's responsibilities will be:

- a. To zone the City for residential, commercial, agricultural, recreational, industrial and government uses.
- b. To hear and decide upon any requests for rezoning and what may be built in each zone.
- c. To issue government contracts for such things as busses, police cars, fire trucks, architectural designs, energy production, road construction, etc.
- d. To pick committees to carry out necessary City operations. Each member of the Planning Commission will be the chairperson of a particular committee. The Planning Commission will hear the decisions and plans for each committee and give the final approval or rejection.

The Committees and Their Suggested Responsibilities:

1. Road Planning:

- a. Decide on a map where the roads are to be placed--before any building construction takes place.
- b. Name the roads.
- c. Determine the total cost of the roads.
- d. Recommend who should receive the construction contracts if there is more than one bidder.
- e. Make sure that the roads are maintained once they are built.

2. Finance:

- a. Determine the total wages of government workers each month.
- b. Determine the total government income through taxes each month.
- c. Keep the City Budget balanced.

3. Government Building Projects:

- a. Determine the total costs for each government project and determine the monthly payments that would be required for each project.
- b. Recommend the locations and approve the designs for each project.

4. Parks and Government Land:

- a. Determine the designs and locations for park construction.
- b. Help the Parks employee build the parks.
- c. Recommend several uses for government land.
- d. Keep the City and room clean.

5. Geological Features:

- a. Name and label all geologic features.
- b. Provide written, brief explanations for each feature that may be displayed near the City.
- c. Keep the features, especially the underground, in good repair.

FORMS

EXPLANATION OF FORMS

#1 List of Vocations

This list is kept by each individual, and also is printed on a larger wall chart so that everyone knows with whom to make their transactions.

#2 List of Committees Members

This list is only suggested ideas for committees. The Planning Commission may wish to delete or add committees.

#3 Transaction Sheet

The students use this form to record all their business transactions. Every-time they receive income, they write the amount in the "Income" column. Every-time they spend money, they write the amount in the "Payment" column. The balance tells them how much money they have in their pockets or checking account. At the end of each month each student adds all the figures in the Income column for determining taxes and income distribution on form # 5. It's important that the student keep accurate, honest records on this form.

#4 Distribution of Building Industry Income

When individuals loan money for a house, the Bank gives them the money which is distributed to the businesses indicated on the form. The businesses record that money as income and are allowed to keep only 10% of it as profit. The profit figures are then used to figure taxes on form #5.

#5 Redistribution of Monthly Income

At the end of each month everyone adds the figures in the Income column of form #3 -- the only exceptions are loans that are made and the monthly allotments the teacher gives for grades and behavior -- both are tax-deductible. The students place the total figure into the appropriate spaces and compute the percentage that should go to each business.

#6 Receipts

Whenever people pay cash for a service or good, they should demand a receipt from the individual they are paying.

#7 & 8 Checks and Check Register

Students are encouraged to keep their money in the Bank so they won't lose it or get it stolen. The importance of completeing each space on the check should be emphasized. Students keep their own check register. They must record each check and each deposit immediately as they are transacted. The Bank also keeps a check register for each person. Two or three students are shown how to operate the Bank.

No student may deposit any cash or any check written to him without having his own check register with him. Both he and the bank clerk write the amount of deposit on both registers immediately. Later, the clerks can go through the checks and deduct the said amounts from the accounts of those who wrote the check. The check is then cancelled (a red X is marked across it) and returned to the original owner as a receipt for amount paid.

#9 Property Location

The blocks on this page are the same size as those on the City. When students purchase a lot, both they and the seller sign the paper, showing transfer of ownership. The buyers keep the paper as their deed. They may also use it to draw the plans for development of that lot.

#10 Loan Forms

All loans are transacted with the teacher present. Once the form is completed, a loan collector is responsible for collecting the payments each month.

#11 Business/Office Building Costs

This list may serve as the absolute costs of each business building under a command economy and/or may serve as suggested prices (or price floors or ceilings) in a market economy.

#12 Government Project Costs

This form helps the Finance Committee and the Planning Commission plan the Government budget. The cost of each project is researched in the community by those individuals who hold the jobs associated with each project.

#13 Cost of Sixth Grade Lumber and Seventh Grade Energy

These forms are used to determine how much money should be transferred between classes. The Finance Committee should take care of these figures. Tax collection records may be kept on the student population forms (# 15 & 16).

#14 Total Assets

This form is used to help figure each individual's total assets at the end of the game. The amount at the bottom of the page is then transferred into the purchase of real goods at an auction.

#15 & 16 Sixth and Seventh Grade Populations

The students find this form helpful when they are trying to keep an account of who has or has not paid a debt owed them.

#17 Houses

The forms for the two styles of houses (\$8000 & \$5000). They should be duplicated on light tagboard. The lines that are folded should be scored with a utility knife.

#18 & 19 Maps

These maps represent the City layouts. The students attempt to draw one of their own on grid paper. Basically, they try to get the perimeter dimensions correct and to place the outlines of the rivers and mountain ranges in the correct places. Later, the maps can be used for city planning ideas. Each student uses the maps to submit a plan for zoning, streets, sewage lines, water lines, and electrical lines. The outlines are also used to make topographical maps.

#20 & 21 Money

Early in the program, the purpose, origin, minting, and distribution of money is discussed. Then a contest is held to design the money for each City. The winner then is awarded the contract for minting the money -- usually a 1% commission is given to the minter.

#22 Oil Map

This map was used to indicate the location and the depth of the oil deposits under the sixth grade City. The teacher was the only person to have access to this map. When students wished to explore for oil they marked an "X" with a legal description on form No. 9, showing the location of their exploratory well. They also indicated the depth in meters that they wished to drill and placed their signature on the form. After they paid the 10% loan cost, the teacher would look at the oil location map and indicate whether or not the well was successful by a simple "yes" or "no"-- giving no other clues as to why the well was successful or not. If the students drilled in an empty section, or if they did not drill deep enough, or if they placed their "X" in the wrong part of the section, their well would not strike oil.

In the beginning, drilling could only go straight down from the designated section. Only one successful well could occupy a section. Students had to own the land they drilled on; or they could arrange a mutually satisfying financial agreement with the individual that did own the land. Drilling rights

on government land was granted to the highest bidders. The government also required that the individuals give the government 25% of their profits if they struck oil on government land. In addition, everyone had to pay 30% of their oil income towards taxes.

The costs were determined by researching the approximate costs of drilling real wells. The students were required to pay 30 Dubees per meter, which averaged to about \$60,000 to \$75,000 per well. Most students had to form partnerships in order to pay the loan costs. The seventh grade (foreign investments) who had a lot of money to invest, were also allowed to drill on the sixth grade city. This created more competition in the market (and more resentment from the sixth grade). The daily income from a successful well was based upon an average daily production of 20,000 barrels at 3 Dubees per barrel.

* Options:

This same idea could be applied towards the exploration for any mineral resource such as gold, copper, iron ore, coal, etc. In some cases, the minerals could actually be buried in the City when it is built. The City's environment would then have to be upset or damaged to obtain the resource.

#1 VOCATIONS

VOCATION	FRANCHISE HOLDER		VOCATION	FRANCHISE HOLDER	
		Employee			Employee
1. Carpenter-Contractor			35. Clothing Store		
2. Plumber			36. Recreation		
3. Electrician			37. Fuel Distributer		
4. Hardware-Appliance					
5. Landscaper			38. Doctor		
6. Lumber			39. Dentist		
7. Furniture			40. Attorney		
8. Trucking			41. Hotel-Motel		
9. Railroad			42. Restaurant		
			43. Mortician		
10. Policeman			44. Veterinarian		
11. Judge			45. Pharmacist		
12. Fireman			46. Insurance		
13. Parks Department					
14. Forest Supervisor			47. Home Security		
15. Teacher			48. Car-Truck Dealer		
16. Maintenance and Roads			49. Swimming Pool		
17. Loan Officer			50. Road Construction		
18. Utilities-Water			51. Jewelry		
19. Utilities-Sewage			52.		
20. Utilities-Electrical					
21. Building Inspector					
22. Banker #1					
23. Banker # 2					
24. Communications Technician					
25. Tax Collector					
26. Chemical Engineer					
27. Game Department					
28. Garbage					
29. Food Store					
30. Food Processor					
31. Farmer- Grain					
32. Farmer-Vegetable					
33. Farmer-Fruit					
34. Farmer-Livestock					

#2 COMMITTEES

Planning Commission

- 1.
- 2.
- 3.
- 4.
- 5.

Road Planning

1. Chairperson:
- 2.
- 3.
- 4.
- 5.
- 6.

Finance

1. Chairperson:
- 2.
- 3.
- 4.
- 5.
- 6.

Government Building

1. Chairperson:
- 2.
- 3.
- 4.
- 5.
- 6.

Geological Features

1. Chairperson:
- 2.
- 3.
- 4.
- 5.
- 6.

Parks and Government Land

1. Chairperson:
- 2.
- 3.
- 4.
- 5.
- 6.

#4 DISTRIBUTION OF BUILDING INDUSTRY INCOME

VOCATION	%	PAYMENT CALCULATION		FRANCHISE HOLDER	DATE
Carpenter	20%	.20 X	=	to	
Plumber	5%	.05 X	=	to	
Electrician	5%	.05 X	=	to	
Landscaper	5%	.05 X	=	to	
Hardware	20%	.20 X	=	to	
Furniture	15%	.15 X	=	to	
Lumber					
----- Industry	20%	.20 X	=	to	
----- Trucking	2.5%	.025 X	=	to	
----- Railroad	2.5%	.025 X	=	to	
Inspection & Permit	2.5%	.025 X	=	to Bank .	
Architect	2.5%	.025 X	=	to	

#5 REDISTRIBUTION OF MONTHLY INCOME

DEDUCTIONS-EXPENSES	%	CALCULATIONS		FRANCHISE HOLDER	DATE
Taxes	20%	.20 X	=	to Bank	
Food					
Food Store	5%	.05 X	=	to	
Farmer	5%	.05 X	=	to	
Farmer	5%	.05 X	=	to	
Farmer	5%	.05 X	=	to	
Farmer	5%	.05 X	=	to	
Processor	5%	.05 X	=	to	
Transportation					
Fuel	5%	.05 X	=	to	
Trucking	3%	.03 X	=	to	
Railroad	2.5%	.025 X	=	to	
Clothing	5%	.05 X	=	to	
Recreation	5%	.05 X	=	to	
Utilities	10%	.10 X	=	to Bank	

#6 RECEIPTS

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
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Date _____
Received From _____
The Amount Of _____
For Payment Of _____
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Date _____
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The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

Date _____
Received From _____
The Amount Of _____
For Payment Of _____
By _____

CHECK # _____
AMOUNT _____
TO _____
FOR _____

_____ #7 # _____
Name & Address
PAY TO THE _____ 19 _____
ORDER OF _____ \$ _____
Written Out
FOR _____ Signature

CHECK # _____
AMOUNT _____
TO _____
FOR _____

_____ # _____
Name & Address
PAY TO THE _____ 19 _____
ORDER OF _____ \$ _____
Written Out
FOR _____ Signature

CHECK # _____
AMOUNT _____
TO _____
FOR _____

_____ # _____
Name & Address
PAY TO THE _____ 19 _____
ORDER OF _____ \$ _____
Written Out
FOR _____ Signature

CHECK # _____
AMOUNT _____
TO _____
FOR _____

_____ # _____
Name & Address
PAY TO THE _____ 19 _____
ORDER OF _____ \$ _____
Written Out
FOR _____ Signature

#8 CHECK REGISTER

CHECK #	DATE	NATURE OF TRANSACTION	✓	Amnt. Check	Amnt. Depos	BALANCE
		To				
		For				
		To				
		For				
		To				
		For				
		To				
		For				
		To				
		For				
		To				
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		To				
		For				
		To				
		For				
		To				
		For				
		To				
		For				
		To				
		For				

#9

DATE _____

BUYER _____

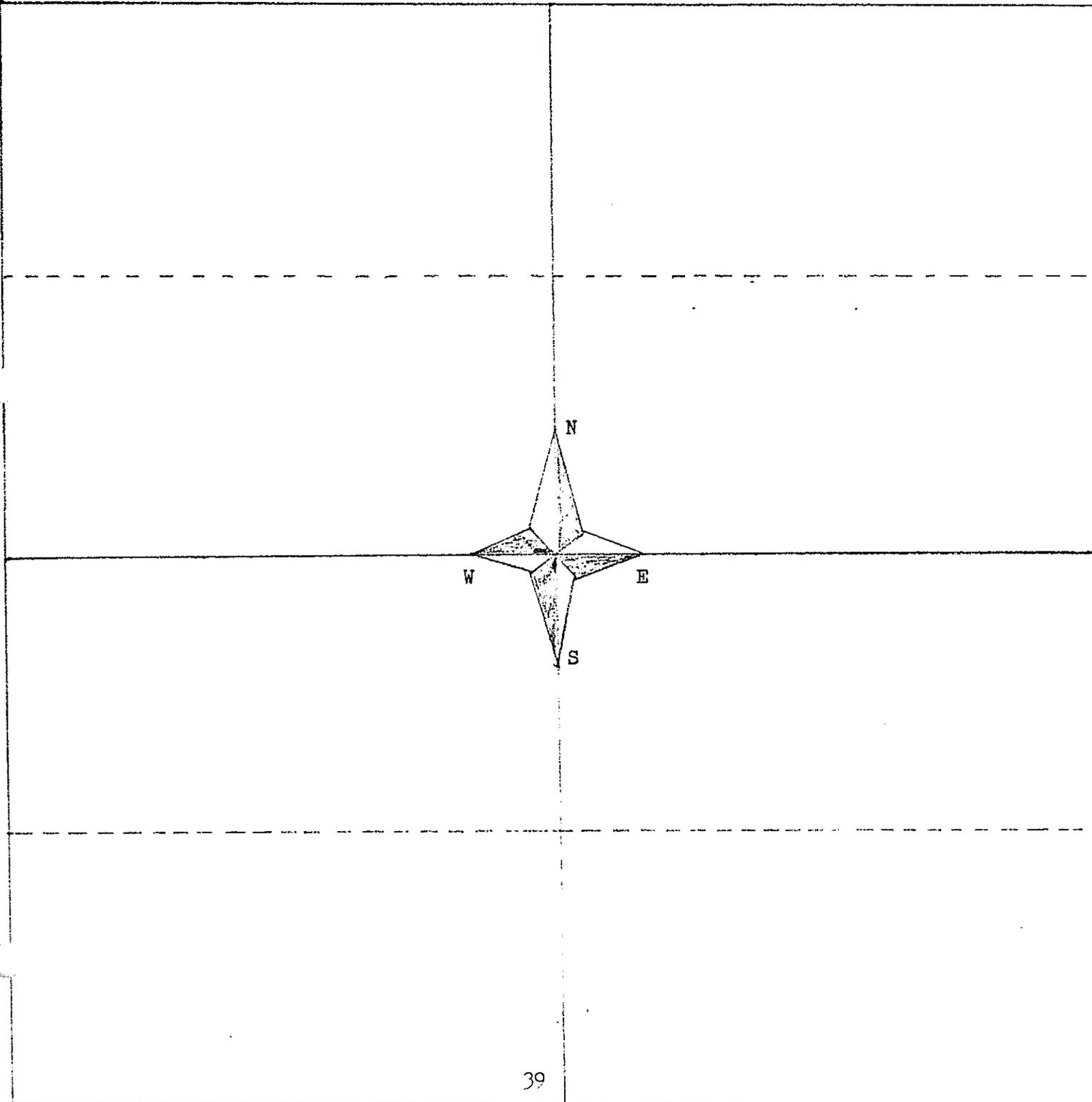
SELLER _____

TOWNSHIP _____

RANGE _____

SECTION _____

LOT _____



BUSINESS OFFICE/BUILDING COSTS

Part of the building industry's income comes from the construction of buildings for business franchises and city projects. On this page are listed each business franchise and the cost for a building for each franchise. These costs are already included in the investment costs so the owners need not pay any additional amount for their buildings. However, each franchise owner needs to fill out a Building Industry Income Distribution sheet (# 11) based upon the figures listed below. Take the sheet to the bank and money will be put into your checking account to pay for these buildings.

To demonstrate that the total amount of \$ a business collects is gross income and is not all profit, the businesses in the building industry will be able to keep only 10% of their earnings as profit from these buildings. Therefore, when you complete the building distribution forms, use the figures from the "10%" column on this page.

BUSINESS	BUILDING COST	10%	
1. Carpenter-Contractor	5000	500	
2. Plumber	3000	300	
3. Electrician	3000	300	
4. Hardware-Appliance	5000	500	
5. Landscaper	3000	300	
6. Lumber	5000	500	
7. Furniture	5000	500	
8. Trucking	5000	500	
9. Food Store	10,000	1000	
10. Food Processor	10,000	1000	
11. Farmer	10,000	1000	
12. Farmer	10,000	1000	
13. Farmer	10,000	1000	
14. Farmer	10,000	1000	
15. Clothing Store	10,000	1000	
16. Recreation	10,000	1000	
17. Fuel Distributer	3000	300	

#13 COST OF SIXTH GRADE LUMBER

MONTH _____

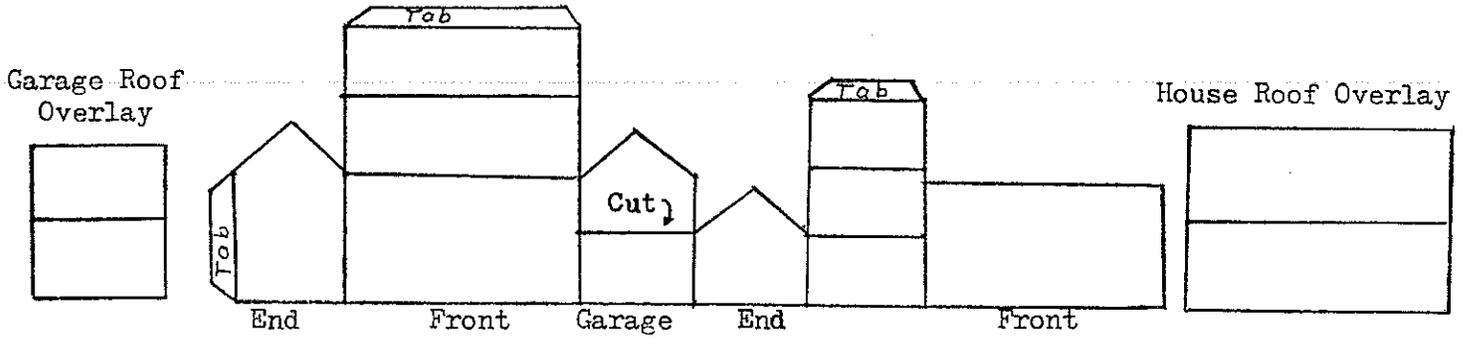
1. Total cost of all buildings = _____
2. Cost of lumber: .25 X _____ = _____
3. 2.5% (X .025) of _____ = _____ to 7th Grade Trucking.
4. 2.5% (X .025) of _____ = _____ to 7th Grade Rail road.
5. 95% (X .95) of _____ = _____ to 7th Grade Government.

SEVENTH GRADE ENERGY COSTS

MONTH _____

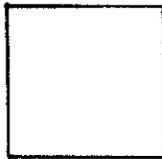
1. Total taxes for 7th Grade = _____
2. 25% (X .25) of taxes = _____
3. 2.5% (X .025) of _____ = _____ to 6th Grade Trucking.
4. 2.5% (X .025) of _____ = _____ to 6th Grade Railroad.
5. 95% (X .95) of _____ = _____ to 6th Grade Oil Industry.

TWO STORY HOUSE WITH GARAGE



1. Color house before you cut and fold.
2. Cut around outside lines of house and garage. Fold on all inside lines.
3. Glue tabs inside.
4. Cut out roof overlay; fold on inside line and glue it to roof, centering overhang.

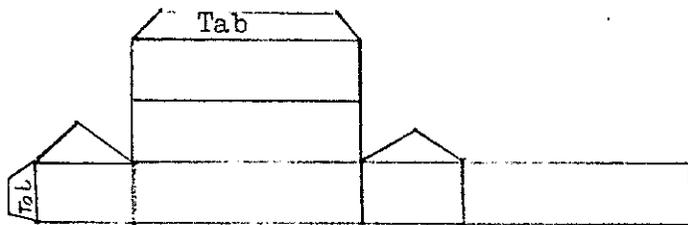
Garage Roof



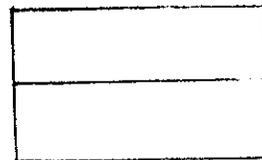
Garage



ONE STORY HOUSE WITH SEPARATE GARAGE



Roof Overlay



#18

R 22 E

R 23 E

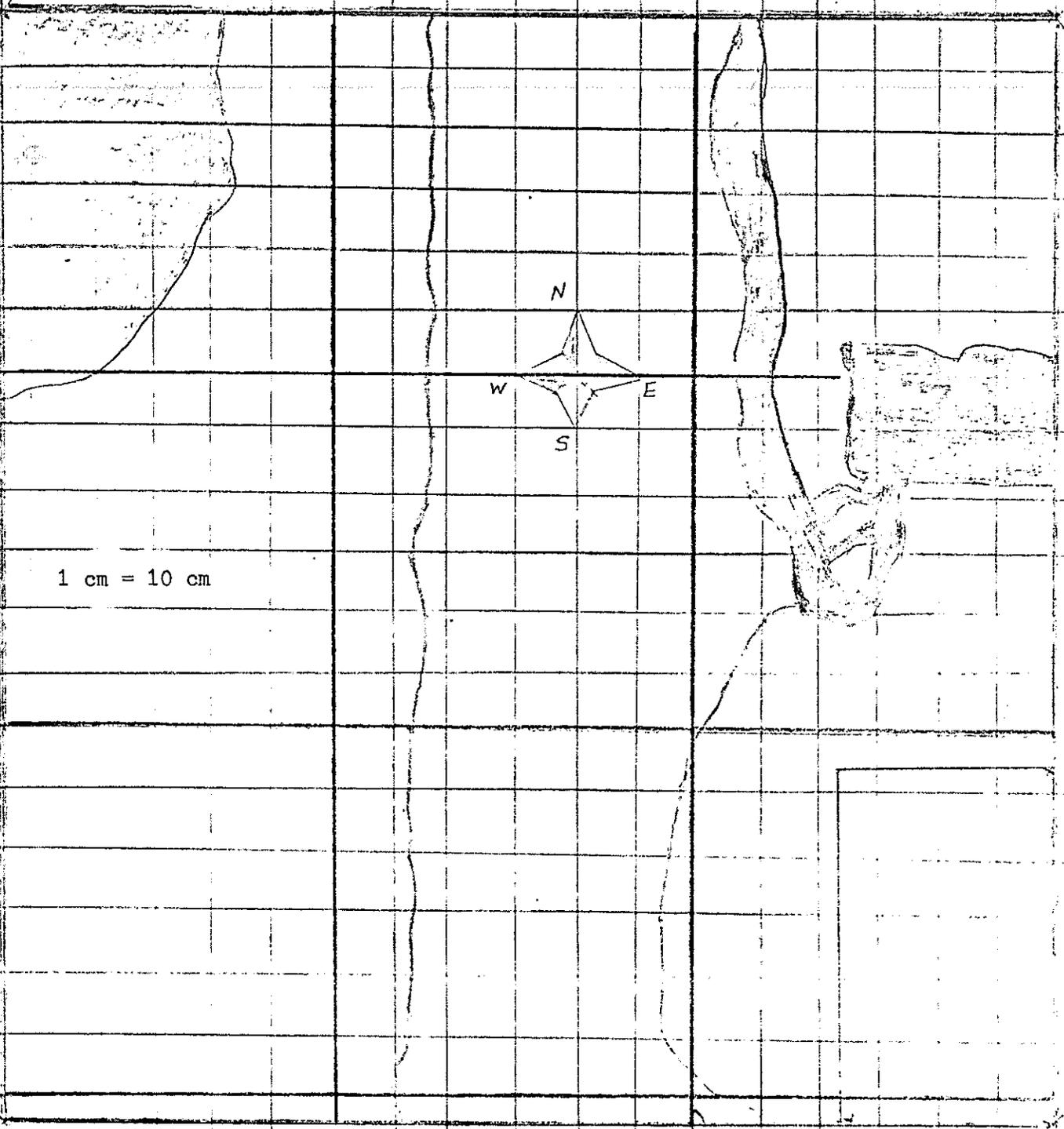
R 24 E

T
17
S

T
18
S

T
19
S

T
20



1 cm = 10 cm

34
N

T

33
N

N

T

32
N

N

#19

T

31
N

N

T

30
N

N

R

11

W

R

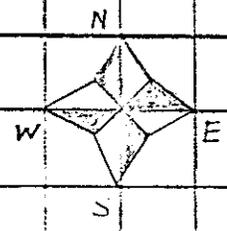
10

W

R

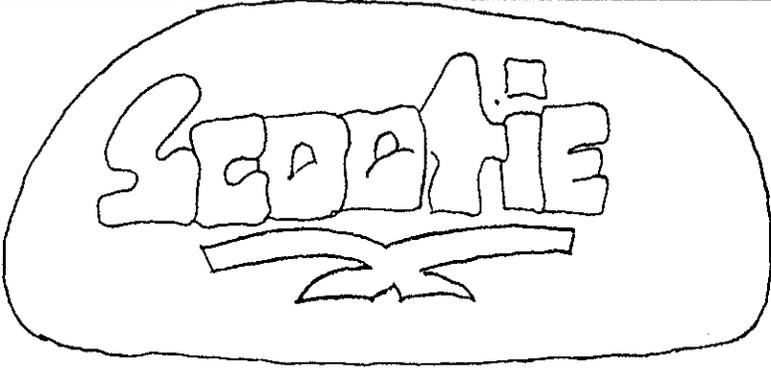
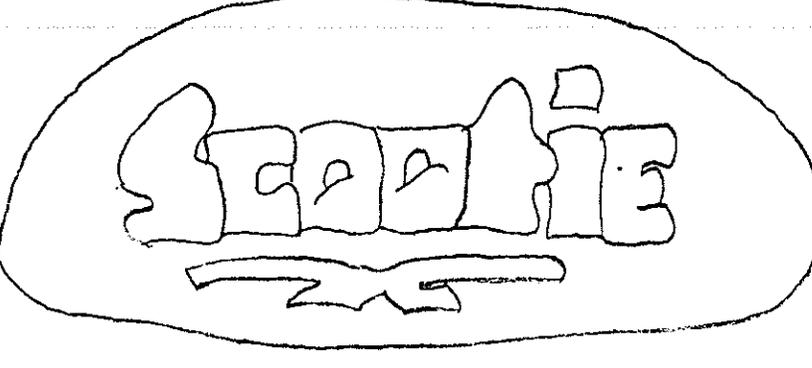
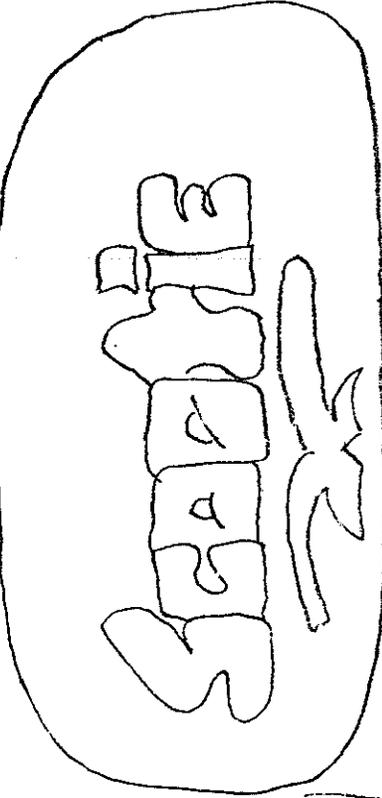
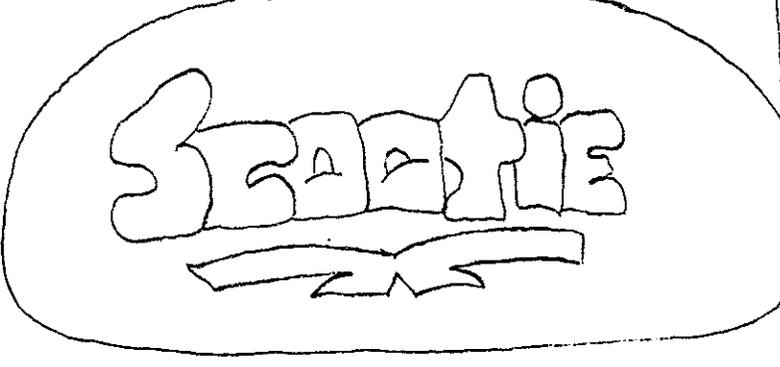
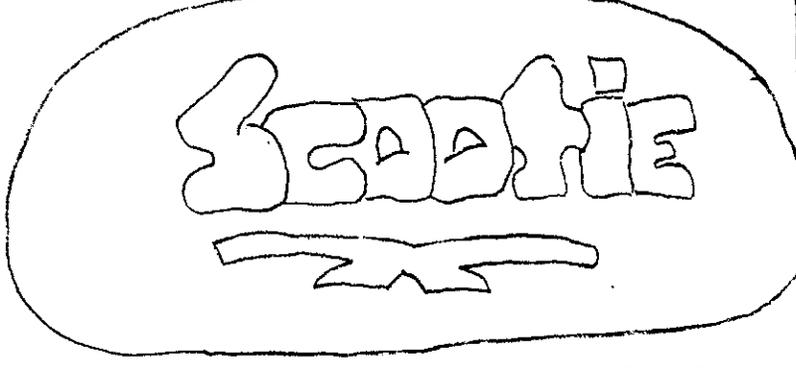
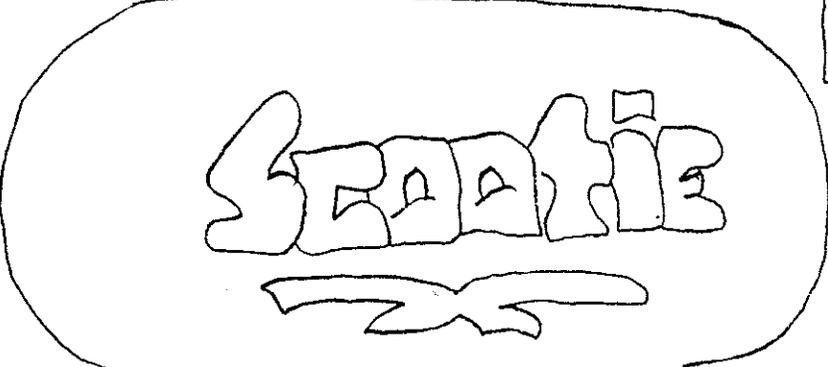
9

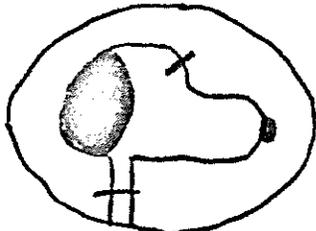
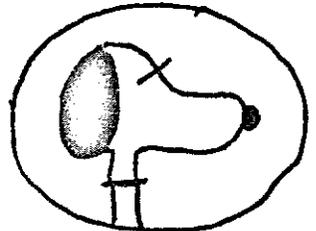
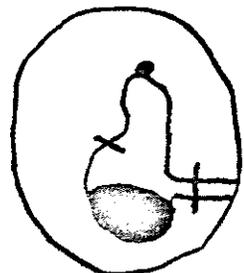
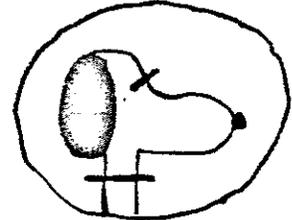
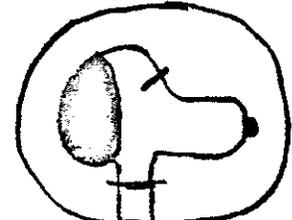
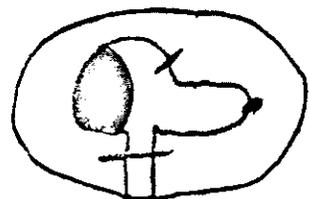
W



1 cm = 10 cm



1		1	100	100		
1		1	100	100		
5		5		100		
5		5				
10		10			100	
10		10				
25		25				100
25		25				
50		50	100			
50		50				

1	<u>COUG</u> 0577826780		<u>CITY</u> 0577826780	100	<u>CITY</u> 0586219	100
1	<u>ONE DUBEE</u>			1		
5	<u>COUG</u> 789653487		<u>CTIY</u> 789653487	5		ONE HUNDRED DUBEEES
5	<u>FIVE DUBEEES</u>			5		
10	<u>COUG</u> 05982365420		<u>CITY</u> 05982365420	10	<u>COUG</u> 0586219	100
10	<u>TEN DUBEEES</u>			10		
25	<u>COUG</u> 0629354620		<u>CITY</u> 0629354620	25		
25	<u>TWENTY FIVE DUBEEES</u>			25		
50	<u>COUG</u> 0005629		<u>CITY</u> 0005629	50		
50	<u>FIFTY DUBEEES</u>			50		

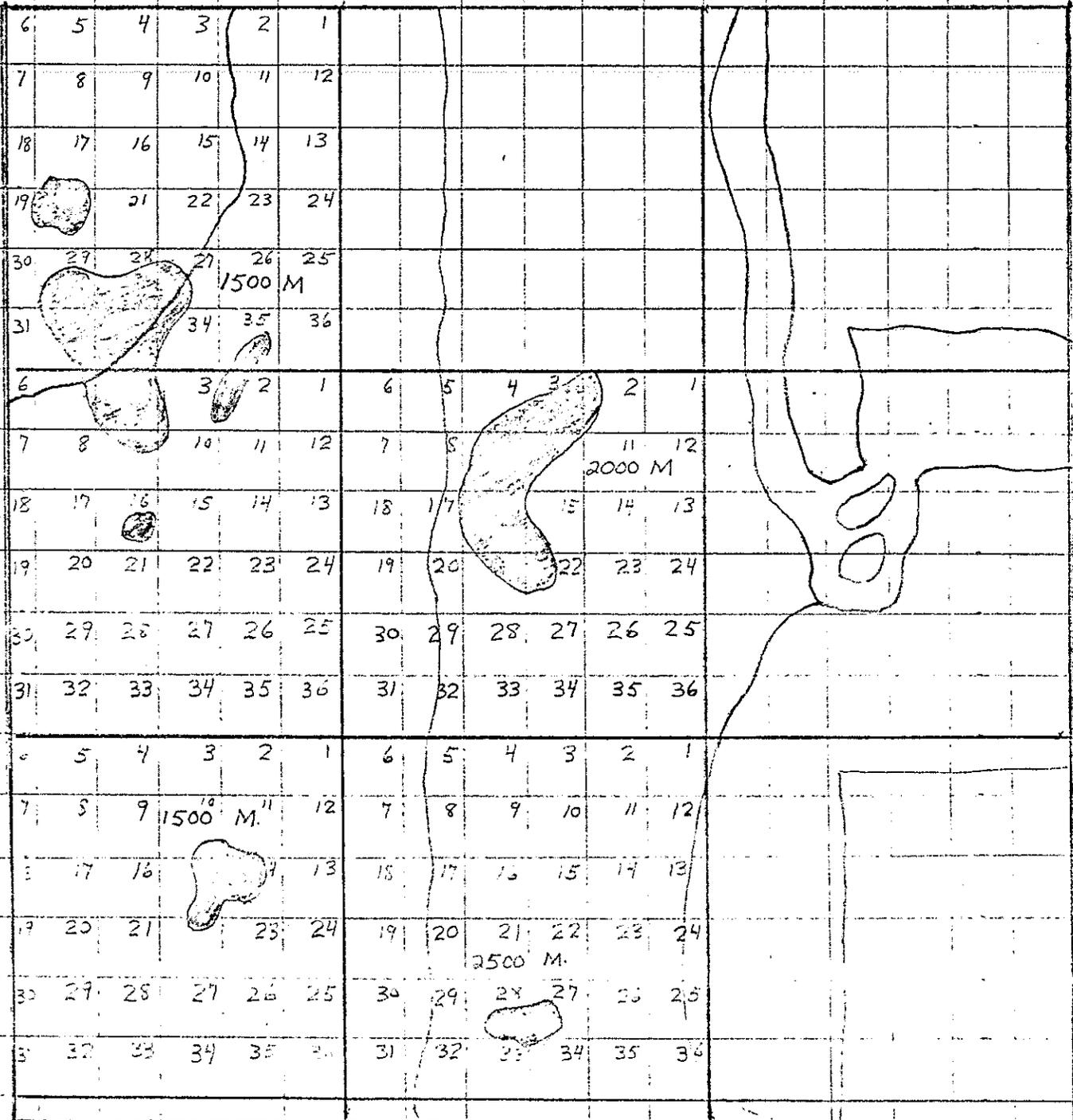
#22

O I L M A P

R 22 E

R 23 E

R 24 E



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R 22 E

R 23 E

R 24 E

ECONOMICS GENERALIZATIONS AND DISCUSSION QUESTIONS

- A. Generalization 1: Because income of a household is limited and its wants for goods and services are unlimited, it must choose which of its many wants for consumer goods and services it will satisfy.

Subtopic 1: Peoples wants for goods and services seem to be never ending.

- a. Goods: objects that consumers want
- b. Services: productive acts that satisfy consumers wants, but do not result in tangible objects.

Questions for Discussion

1. What are wants?
2. What are needs?
3. When or how could a want become a need?
4. What are some of your wants in the City?
5. Name some jobs that produce goods.
6. Name some jobs in our City that provide services.
7. Are most of the jobs in our City producers of goods or producers of services? Is this the case in our real community? Do you think the same difference existed in our past history?

Subtopic 2: People purchase most goods and services from private business firms in the marketplace.

Questions for Discussion

1. In our City from whom do you purchase your goods and services? (from the government and individual businesses)? From which do you purchase the most?
2. In the real community from whom do you purchase most of your goods?
3. What is a marketplace?
4. Do you need a store to have a market?

Subtopic 3: Since a person's income is usually insufficient to buy all the goods and services wanted he/she must make choices which are determined by tastes, income, and prices of goods and services ("wants-income" gap).

Questions for Discussion

1. What are you forced to do if you do not have enough money to buy everything you want in our City?
2. What factors determine the amount or the kinds of things you buy?
3. What are some things that would make your decision making easier?
4. What are some things that people can do to make their decisions easier?
5. What are your reasons for choosing the job you do in our City?
6. Why did you choose a \$5,000 home instead of an \$8,000 home?
7. Are there any people who do not have to make choices?

Subtopic 4: Persons should make wise decisions in choosing what goods they buy because whenever they buy a particular good, they must give up some other good. (opportunity cost) There are two types of costs involved when a person buys something--the obvious money costs and the opportunity cost.

Questions for Discussion

1. What is the cost of your home? Are there any other costs involved in purchasing a home--what did you have to give up when you bought a home?
2. What would you have done with your money if you had not bought a home?
3. If you chose to be a doctor (or any other vocation), what is the opportunity cost of that decision?
4. If you chose to invest your money in more land, what is the opportunity cost of that decision?

- B. Generalization 2: Because wants are unlimited and resources are limited and versatile, choices must be made as to what goods and services are to be produced.

Subtopic 1: Before goods and services are consumed, they must be produced. For this to occur, productive resources are necessary. These resources must be transformed from an unwanted natural state to a state the consumer can use.

- a. Natural resources: are the gifts of nature used to produce goods and services (land, water, oil, mineral deposits, soil fertility, climates, timber).
- b. Human resources: are people and their physical and mental capacities.
- c. Capital goods: are those things created by man's past efforts that are available to produce goods and services in the future (machines, tools, money).

Questions for Discussion

1. What are "productive resources"?
2. Define on the chalk board each type of productive resource.
 - a. Have each individual list all the resources upon which his/her vocation depends.
 - b. List the resources according to one of the three types--Natural, Human, and Capital.
 - c. Which types of resources could a business do without? (none)
 - d. Describe what would happen to each business if one of the resources were missing.
3. What natural resource did the seventh grade City have that the sixth grade City needed?
4. What natural resource did the sixth grade City have that the seventh grade City needed?
5. On what resources does (name any business) depend?

Subtopic 2: There are not enough resources to produce all the goods and services individuals want. (scarcity)

Questions for Discussion

1. Activity:

- a. Each building will require the harvest of one tree (handled by the Forest Supervisor).
- b. Allow only a certain number of days for trees to be "planted" on the City. (These trees are made of either toothpicks and green tissue or green chenille).
- c. Tell the class that any trees planted after the cut-off date cannot be used for lumber production until one month has passed. (These additional trees are planted in designated plots and dated).
- d. Open only certain limited areas for timber cutting.
- e. At a designated time, limit the amount of timber cut, citing environmental reasons. The demand for buildings should exceed the availability of timber.
- f. Questions:
 1. What happened to the building industry when the timber supply became limited?
 2. What happened to the other businesses when the building industry slowed down?
 3. What happens to the price of products when resources become scarce?
 4. What would happen if the scarce resource suddenly became plentiful?

2. Activity:

- a. When individuals come to borrow money from the Bank, either tell them the money is not available or make the loan costs so high that they cannot afford to borrow from the Bank.
- b. Questions:
 1. What happens to a business when capital resources become scarce?
 2. What alternative do individuals have when they cannot get a capital resource?
3. Usually those individuals who have several businesses or financial investments find themselves bogged down in paperwork in this game. They usually begin looking for "secretaries" to take care of some of their work. They quickly discover that secretaries (human resources) are in limited supply.
4. Which resources are scarce in our City?
5. Why is it important to distinguish between wants and needs when resources become scarce?

Subtopic 3: Decisions must be made as to what goods and services will be produced with available resources. Resources have alternative uses.

Subtopic 4: Whenever the decision is made by individuals to use resources in the production of a particular good, this means foregoing the opportunity to use these resources in the production of some other good. (opportunity costs).

Questions for Discussion

1. What are individuals and cities and nations forced to do if resources they want are scarce?
2. Are there any possible opportunity costs involved in deciding to use our forested land for timber production?
3. What are the opportunity costs of deciding to zone some of our valuable land for industrial use?
4. What would be the opportunity cost of placing a dam on our river for hydroelectric power?
5. Usually there are large plots of land in the City that remain unsold for several weeks. Tell the students that six sections of unsold land are going to be reclaimed by the government and that they and the Planning Commission must decide how to develop that property.
 - a. Divide the class into five groups.
 - b. Give the class five options for land development: a shopping center, business offices, an amusement park, a wildlife park, or condominiums.
 - c. Assign one project to each group. Each group is responsible for developing strong arguments in favor of their project.
 - d. Each group selects a representative to argue their option before the Planning Commission, which will decide upon the one most favorable option for developing that land.
 - e. The students will have to investigate the advantages and disadvantages to the community, the financial costs, and the opportunity costs of each project.

- C. Generalization 3: Because household income is limited, households must choose how much of their income they will use to purchase goods and services privately and how much they will use to purchase collectively through government.

Subtopic 1: Government supplies goods and services to households and to business firms.

Questions for Discussion

1. Which jobs in our City provide government services? Is the government the only means by which these services may become available? Why do we choose the government to provide these services?
2. Does the government produce any goods in our City?
3. Is the food store in our City helped when the government builds a fire station?
4. Is the clothing store helped in our City when the government hires a mailperson or a parks supervisor?
5. From whom did our government purchase the heavy equipment it needs for road maintenance?
6. Activity: The government finance committee could go to the City Hall in the community to get a record of the building costs for a new building project. They could then see the number of businesses directly benefiting from government expenditure for just one project.

Questions for Discussion

1. Activity: When beginning the City, the first items purchased are property lots. Announce that property is now for sale--before money is printed. Tell the class that they may purchase the property with whatever they and the Bank consider mutually valuable. Follow with a discussion and definition of money and bartering.
2. Why does specialization lead to the need for a money system?
3. Why is money better than bartering?
4. What would be an example of bartering in our City?
5. Our money is merely a design printed on plain white paper. What makes it worth more than just plain white paper? (it may be used to buy real merchandise at an auction at the end of the game).
6. Suppose I said that you could trade each Scootie or Dubees for one cent at the end of the game. What effect would that have on our game? What effect would it have on our money system?
7. Every 10 seventh grade Scooties are worth 7 Dubees. Which money was worth more?
8. Suppose I said that it would now cost \$10,000 for the same \$5,000 home. Is each \$ worth more or less now?
9. How valuable is our money outside the classroom?
10. Are checks worth as much as money?
11. What does the whole world value as the mutual item of exchange?
12. What happens to the value of the \$ if the government prints more money without increasing the gold reserves?
13. Why is only the government allowed to print money?

Subtopic 5: Credit allows an individual to purchase production supplies when he/she does not have the available money.

Questions for Discussion

1. What would happen to our City if the Bank did not provide credit?
2. What are the advantages and disadvantages of credit?
3. How many things have you bought with credit in our City?
4. What do you think would determine how much credit the Bank would be willing to give you?

Subtopic 6: Banks create much of the money used within our system by making loans.

Subtopic 7: Interest is a payment for the temporary use of another's money because the lender is not able to use that money.

Questions for Discussion

1. Why do Banks pay you interest for your savings?
2. Why do you pay interest to the Bank when you borrow its money?
3. Why does the Bank charge you more interest than it is willing to give?

4. How does the amount of savings in a Bank affect the amount of loans it provides?
 5. How do the Banks get money? Do they have a never ending supply?
 6. What would happen if our City did not have a Bank?
- G. Generalization 7: Economic systems deal with how people use productive resources to satisfy their wants for goods and services.

Subtopic 1: Societies develop economic systems to answer these basic questions:

- a. What to produce
- b. How much to produce
- c. How to produce it
- d. Who will get the output
- e. How to distribute the output

Questions for Discussion

1. What to Produce:
 - a. What goods and services are produced in our City?
 - b. When would a society have to set up a system of priorities in deciding what to produce?
2. How Much to Produce:
 - a. What things must business owners consider when deciding how much of their product should be placed on market?
 - b. What choices does a business have when it produces more than it can sell?
 - c. What happened to the automobile franchise or the swimming pool franchise when people quit buying their products?
3. How to Produce:
 - a. How were our houses produced in our City?
 - b. Was any machinery involved in the production of our homes?
 - c. Was any extra labor hired to help in the production of the homes?
4. Who will get the Output: How will it be Distributed:
 - a. How did we decide who was going to buy the products and services offered in our City?
 - b. How would you feel if you received the same amount of goods and services as another individual, although you put more labor and capital into production than the other person?
 - c. Activity: Eliminate the government jobs or one other group of jobs for one month (lay people off) to demonstrate what happens when there is more available human labor than there are jobs.
 - d. What happens when there are no longer enough resources to produce the goods or services?
 - e. What happens when there are no longer enough resources to produce the goods and to keep everyone employed?
 - f. How do we determine how much income for goods and services each person gets? (It's based upon the sale of that persons labor or resources.) Is there any other way of determining income distribution?

Subtopic 2: Types of Economic systems are based upon society's basic premise as to who owns the productive resources.

- a. In a command economy, decisions are made largely by a central authority (king, dictator, government agency). The premise is that the resources are owned collectively (collective ownership) by everyone and the government should regulate economy. The central governing agency has the responsibility to answer the above questions (planned economy).
- b. In a market economy or decentralized economy Society believes that the resources should be owned by individuals. These individuals are apt to use the resources to their own benefit, and they will benefit themselves most by producing what others want and are willing to pay for. Decisions and answers concerning the basic economic questions are left to the marketplace.
- c. In a mixed economy, one economic system usually predominates, but elements from the other types of economic systems are present.

Questions for Discussion

The City tends to function with a mixed economy, although it leans more towards a command economy at first, with the game rules and the teacher making most of the decisions for each business. Those businesses that are listed as "Optional" illustrate the market economy more. As the Game progresses and more businesses are open to competition and allowed to establish their own market prices and rules, the Game leans more toward a market economy. An optional activity would be to collect 100% of everyone's monthly income, redistribute that income equally to all students, and make all their decisions for them--to demonstrate a command economy.

1. Which type of economy do you like best?
 2. Is there any situation in which a total command economy is preferable to a market economy or mixed economy?
 3. Which system do you think best distributes or uses available resources when they are scarce?--when are resources plentiful?
 4. Who determines the prices of goods and services in a market economy?
- H. Generalization 8: The distribution of resources in a market economy is determined by supply and demand. The consumers make their desires for goods and services known by their purchasing choices and the producers supply those goods and services that consumers wish to buy.

Subtopic 1: Demand refers to the desire, backed by the ability and/or the willingness to pay for the goods or services desired. Demand is influenced by: (1) the tastes and preferences of consumers, (2) the income level of the consumers, (3) the prices of substitutes and complements, (4) the view of the future held by consumers, (5) advertising.

- a. The lower the price of an item, the more will be demanded by the consumer.
- b. The higher the price the item the less will be demanded by the consumer.

Subtopic 2: Supply refers to the willingness of producers to produce and sell varying quantities of their good or service at various prices.

- a. As the price of an item goes up, the quantity supplied of the good or service tends to go up.
- b. As the price of an item goes down, the quantity supplied of the product tends to go down.

Subtopic 3: Suppliers tend to be willing to sell more at higher prices (and less at lower prices) while consumers tend to be willing to buy more at lower prices and less at higher prices.

Subtopic 4: The equilibrium price or market price is that price at which the quantity consumers want to buy is equal to the quantity the suppliers are willing to supply.

Questions for Discussion

1. What products were in high demand in our City?
 2. What things determine how much demand is placed on a product?
 3. Activity: Tell the students that at the end of the game, jewelry will be worth ten times as much as the students paid for it. (They should keep a signed receipt or a canceled check as a record of their purchase). Have them observe what happens to demand--prices--competition after the announcement is made.
 4. Some students advertise their products and prices. Ask the class what effects the advertising had on their purchase choices.
 5. Activity: Triple the price of homes. After a few weeks, have the class discuss the effects on demand.
 6. What happened to the price and demand for your service or product when other individuals were allowed to compete with you?
 7. What should you do to your prices if no one is buying your products?
 8. Will a producer supply more or less when the demand for the product goes up? What will happen to the prices?
 9. What happens to the demand and supply and prices of Christmas ornaments before and after Christmas?
 10. Why are gasoline prices going up?
 11. Why are gasoline prices going up even though the demand has decreased?
 12. How did you (name a business) determine the market price for your product or service in our City?
- I. Generalization 9: In the real world the market is not always left to itself to allow equilibrium prices to become established.

Subtopic 1: A price ceiling is a legal maximum price for some good or service which is set below the market price. (the supplier or producer may charge the consumer any amount below the given amount, although the consumers would pay a higher amount. The demand for the product increases, resulting in a shortage because the producer cannot keep up with demands.

Subtopic 2: Price floors are legal minimum prices set above the equilibrium price.

Subtopic 3: Credit allows an individual to purchase goods and pay for it in small amounts later. This increases both demand and prices in the market.

Subtopic 4: Inflation is a general rise in the price level of products and services, and a drop in the amount of products and services that a unit of money will buy.

Questions for Discussion

1. What are some examples of price ceilings in our City?
 2. What are some examples of price floors in our City?
 3. What effect does credit have on demand and prices?
 4. How could credit contribute to inflation?
 5. Were there any examples of inflation in our City?
 6. Are there any times when you think price floors or ceilings are necessary?
 7. The students can see what inflation is if the price of property and houses are raised without getting more for the higher price.
 8. Activity: Raise the price of the lumber or the stamps in the building industry. Ask the class what happens or could happen to the total cost of the house.
 9. Activity: Raise or lower the amount of taxes that an individual has to pay. Observe and point out to the class what choices that individual has in order to maintain the same profit.
- J. Generalization 10: When freedom of entry of sellers into the market exists, prices to the consumer tend to be lower due to price competition among the sellers of the commodity.

Subtopic 1: Competition arises when there are many buyers and sellers of a product and not one of the sellers or buyers can gain permanent control over the price for which the commodity sells.

Subtopic 2: A monopoly is established when suppliers get together to set higher prices and to keep new sellers of the commodity out of the market.

Questions for Discussion

1. How does competition help the consumer?
2. Which businesses in our City operate as monopolies?
3. Which businesses in our City were in competition with one another?
4. What can a business do to lessen or overcome competition besides lowering the prices.
5. Do you think government should interfere in the market to break up monopolies?
6. Does the quality of a product improve with more competition?

7. What government services do you think we can eliminate?
8. What happens to businesses in the community that depend upon the government purchasing?
9. How can increased government taxation help one business and hurt another?
10. How can reduced government taxation help businesses?

Subtopic 3: Government finances most of its purchases with income from taxes.

- a. When government imposes taxes on individuals, the amount of income available to individuals for spending in the marketplace is reduced.
- b. When government collects more taxes, it is able to provide individuals with additional goods and services from the public sector.

Questions for Discussion

1. From where does the government get its money for the goods and services it provides?
2. How much of your money goes to the government each month?
3. What would you do with that money if you did not have to give it to the government?
4. What would happen if your taxes are reduced?
5. What would you expect from the government if your taxes were raised?
6. What would our government probably do if it wanted to increase the wages of government workers, or if the cost of the goods purchased from businesses increased?

Subtopic 4: Because of limited income, choices must be made about what and how much of each good or service the government will supply.

Subtopic 5: The opportunity cost of government goods and services is the amount of other goods and services (government and private) that are given up.

Questions for Discussion

Activity: Present the Planning Commission and the class with form #12 to show all the possible government projects. Also, figure with the class what the government wages total each month. The class (through the finance and project committees) will have to figure how much tax money is being collected and then research the project costs. Then they will decide which projects they want to build with the available tax money. If they are short of money, they may want to raise the taxes. If they have extra money, they may want to reduce the taxes, raise wages, hire more personnel, place it in savings, build more projects, etc.

- D. Generalization 4: Labor income is the main source of income for most households.

Subtopic 1: Labor income, in the form of wages and salaries, is the major source of income for most households.

- a. In a market economy individuals are paid money for the use of their resources, these productive factors are labor, capital, and natural resources.
- b. Most people obtain money income through the sale of their labor services or of their products to some business (earned income).

Subtopic 2: Labor income differs among households because of differences in the market value of the household's labor services and in the number of workers per household.

Subtopic 3: Transfer payments from government supplement the income of households whose resources yield insufficient income in the marketplace. Unearned income: money in the form of gifts.

Questions for Discussion

1. Give examples of earned income in our City.
 2. Give an example of unearned income in our City.
 3. Why don't some people like the idea of the government providing unearned income to some individuals?
 4. What do you think would happen to production if everyone were paid the same wage, no matter how much he/she produced?
 5. Why do some households have more money than other households?
- E. Generalization 5: Because households want more goods and services than can be produced with available resources, there is a need to find new and more efficient ways of using existing resources (specialization and division of labor).

Subtopic 1: Productive tasks can be subdivided, enabling workers to specialize.

- a. Production of most goods can be broken down into a number of specific tasks.
- b. Each of these tasks can be assigned to specific persons, who then become specialists.

Subtopic 2: When workers specialize, their productivity and income generally increase because:

- a. Division of labor enables us to assign workers to tasks which are most compatible with their particular attributes.
- b. Divides tasks into smaller units which are easier to learn and perform.

Questions for Discussion

1. Activity: Housebuilding

The carpenter-contractor has the responsibility for building the houses on form No. 17; however, many people choose to build the houses themselves. To show the values and problems of specialization, compare the quality, quantity, and construction time of the carpenter doing the entire job, with having several skilled

people perform specialized tasks. The separate tasks required to build the homes would be:

- a. Cut out the outline.
 - b. Score the fold lines with a razor.
 - c. Fold the house.
 - d. Glue the tabs.
 - e. Place on decorated roof covers.
 - f. Color and decorate.
2. What are the advantages and disadvantages of specialization?
 3. How is specialization a more efficient way of using resources?
 4. If you owned (name a business) would specialization help you?

Subtopic 3: Specialization leads to greater interdependence among members of society.

Questions for Discussion

1. How many of you are specialized?
 2. Does specialization lead to more independence or more interdependence among members of a society? Explain.
 3. How is a plumber (or any other job) dependent upon other people in our City?
- F. Generalization 6: Because specialization and division of labor result in increased output and in increases in the amount of goods and services exchanged, there is a need for a money system.

Subtopic 1: When individuals engage in highly specialized production, they must be able to exchange goods and services. Some arrangement must be devised for enabling specialists to exchange the goods and services they produce for the goods and services they want.

- a. Barter system: goods and services are exchanged directly.
- b. Market: when buyers and sellers come together to engage in exchange.
- c. Money: is anything which is commonly accepted in exchange for goods and services within a given society.

Subtopic 2: In economics characterized by a high degree of specialization, individuals use money as a medium of exchange.

- a. Money eliminates need to find item of mutual want in exchange between many people.
- b. Money is not wanted for its own sake. Money is wanted for what it can buy. Goods and services.

Subtopic 3: The use of money by individuals is a more efficient way of exchanging goods and services than exchange by barter. Money saves resources (mostly time) which can be put to productive use.

Subtopic 4: The effectiveness of a money system is based on the faith of the consumers and producers that the money is worth something.

TESTS

MULTIPLE CHOICE

1. Why do people have to make choices?
 - a. Because resources are limited while wants are unlimited.
 - b. Because wants are limited while resources are unlimited.
 - c. Both resources and wants are limited.
 - d. Both resources and wants are unlimited.
 - e. Because they have to get their resources from other countries.
2. In a market economy, the decision of what kinds of goods and services are to be produced is determined by:
 - a. A government planning commission.
 - b. A central authority.
 - c. What people buy in the marketplace.
 - d. By the Congress.
 - e. The cost of natural resources.
3. Specialization leads to:
 - a. More interdependence.
 - b. More independence.
 - c. Increased working hours.
 - d. Need for a money system.
 - e. Both a and d.
4. Each individual in the city has a different job instead of trying to do everything him/herself. This is an example of:
 - a. Consumption.
 - b. Production.
 - c. Specialization.
 - d. Independence.
 - e. Incentive.
5. From which resource do most people obtain their income?
 - a. Productive.
 - b. Capital.
 - c. Natural.
 - d. Labor.
6. When the government collects taxes from individuals:
 - a. It is able to provide individuals with additional goods and services.
 - b. The amount of income available to individuals for spending in the marketplace is reduced.
 - c. Both of the above.
 - d. Neither of the above.

7. Government taxation and spending usually cannot help any businesses make money.
- True.
 - False.
8. If an individual decides to invest her money in more property instead of buying a new car, the new car would be the:
- Investment cost.
 - Scarcity cost.
 - Opportunity cost.
 - Trade cost.
9. Which of the following is not an example of a natural resource?
- Climate.
 - Water.
 - Soil fertility.
 - Oil
 - Bricks.
10. One method by which to make more efficient use of our existing resources is:
- By placing higher taxes on them.
 - By increasing government control over them.
 - Specialization of labor.
 - Both a and b.
 - None of the above.
11. A monthly allotment from the government that does not require any goods or services in return would be an example of:
- Earned income.
 - Unearned income.
 - Profit incentive.
 - Opportunity cost.
12. An individual is willing to perform secretarial service for you for \$100 per month. However, the government says you must pay at least \$120 per month. The government is setting:
- A price ceiling.
 - A price floor.
 - A market price.
 - Inflation rate.
 - A cost-of-living rate.

13. An example of a capital good is:
- a. Money.
 - b. Timber.
 - c. Machines
 - d. Both b and c.
 - e. Both a and c.
14. If people were will to pay \$1.25 per pound for sugar, but the government said that the producer could sell it for a maximum of \$.80 per pound, the government is setting a/n:
- a. Market price.
 - b. Price floor.
 - c. Inflation rate.
 - d. Price ceiling.
15. In our city money served as:
- a. A natural resource.
 - b. Barter.
 - c. Medium of exchange.
 - d. Capital resource.
 - e. Both c and d.
16. If an individual agrees to do secretarial work for a building firm in exchange for that firm constructing a home for the secretary, we would call that exchange:
- a. Interdependence.
 - b. Bartering.
 - c. Consuming.
 - d. Pricing.
 - e. Trade-off.
17. Which of the following would provide incentive for an individual to produce goods or services?
- a. Wages.
 - b. Profits.
 - c. Those things that make the individual feel better.
 - d. a and b
 - e. All of the above.
18. Not having enough scissors for everyone in the classroom is an example of:
- a. Surplus.
 - b. Scarcity.
 - c. Saving.
 - d. Low demand.

19. The decision to destroy a scenic, recreation area to obtain a mineral in high demand is an example of:
- a. A trade-off.
 - b. Opportunity cost.
 - c. Demand evaluation.
 - d. Recession.
20. Money can only be:
- a. Dollar bills and coins.
 - b. Anything that is used in the exchange of products.
 - c. Checks and credit cards.
 - d. Spent and saved.
 - e. a and c and d.
21. If the demand for a product is large but the supply is small, the price:
- a. Will be low.
 - b. Will probably be high.
 - c. Will probably stay the same.
 - d. Will not be influenced by supply and demand.
22. As the price of an item goes up:
- a. The producer will supply more and the consumer will buy less.
 - b. The producer will supply more and the consumer will buy more.
 - c. The producer will supply less and the consumer will buy less.
 - d. The producer will supply less and the consumer will buy more.
23. When there is competition between businesses, such as two swimming pool construction firms:
- a. The price of their products will go up.
 - b. There is no effect on the products they are selling.
 - c. The price of their product will go down.
 - d. Somebody will stop the competition.
24. What can be exchanged in a market place?
- a. Products.
 - b. Services.
 - c. Money.
 - d. a and c.
 - e. All of the above.

25. Demand for goods and services may be affected by:
- Effective advertising.
 - The amount of money consumers are willing and able to spend.
 - The prices of other products and services that satisfy the same want or need.
 - All of the above.
 - b and c.
26. If the only two road building firms decide to go together to bid on a road construction job they are forming a:
- Price ceiling.
 - Price floor.
 - Competitive market.
 - Monopoly.
 - Market price.
27. If the government were charge the producers \$1.00 for every pair of pants made, which of the following would most likely result?
- Suppliers would sell more and charge a higher price.
 - Consumers would pay more and buy a smaller quantity.
 - Consumers would pay more and producers would make larger profits.
 - Suppliers would increase the amount sold in order to make up for the taxes it is charged by the government.
28. When more than one business is selling the same product who benefits the most?
- The first business.
 - The teacher.
 - The consumer.
 - The second business.
29. If individuals decide to use their capital resources to build casinos, they are answering which economics question?
- How much to produce?
 - Who will buy the product?
 - What to produce?
 - How will the product be produced?
 - How will the product be distributed?
30. Monopolies would tend to:
- Increase prices.
 - Prevent government interference.
 - Increase supplies.
 - None of the above.

31. Credit:
- Increases demand but decreases prices in the market place.
 - Increases prices but decreases demand.
 - Decreases both prices and demand.
 - Increases both prices and demands.
32. Banks usually make their profit by:
- Lending money and charging interest.
 - Cashing checks and charging for the service.
 - Paying interest on savings accounts.
 - Both a and c.
33. The main purpose of charging interest is:
- To pay for the temporary use of the money because the lender is not able to use the money.
 - To take care of inflation.
 - To make sure that the borrower pays the money back to the lender.
 - Both a and c.
 - All of the above.
34. Low interest rates:
- Decrease spending and decrease demand.
 - Increase spending, but decrease demand.
 - Increase spending and increase demand.
 - Decrease spending, but increase demand.
 - Has nothing to do with the amount of spending or the demand for a product or service.
35. In our City, what would happen to the incomes of a policeman and a clothing store distributor if the Bank did not have enough money to lend the consumers for home construction?
- Both incomes would decrease.
 - Both incomes would increase.
 - Their incomes would not be affected.
 - The income of the policeman would stay the same while the income of the clothing distributor would increase.
 - None of the above.
36. In our Cities, if the monetary exchange rate was 7 Dubies for every 10 Scooties, how many Dubies would 150 Scooties be worth?
- 150
 - 105
 - 180
 - 115
 - 215

VOCABULARY MATCHING TEST

- | | |
|-------------------------------|-------------------------|
| _____ 1. Goods | _____ 15. Wants |
| _____ 2. Service | _____ 16. Profit |
| _____ 3. Producer | _____ 17. Taxes |
| _____ 4. Consumer | _____ 18. Credit |
| _____ 5. Unearned Income | _____ 19. Interest |
| _____ 6. Earned Income | _____ 20. Price Ceiling |
| _____ 7. Natural Resources | _____ 21. Price Floors |
| _____ 8. Capital | _____ 22. Supply |
| _____ 9. Productive Resources | _____ 23. Demand |
| _____ 10. Scarcity | _____ 24. Inflation |
| _____ 11. Human Resources | _____ 25. Trade-Off |
| _____ 12. Price | _____ 26. Incentive |
| _____ 13. Opportunity Cost | _____ 27. Recession |
| _____ 14. Money | _____ 28. Market Price |

- A. A desire that may be satisfied by consuming a good or service.
- B. When a person or group chooses one good instead of another.
- C. The amount of money left over after all costs of production are paid.
- D. A general rise in the price level of products and services without an increase in the amount of those goods or services.
- E. Those things that tend to make an individual want to produce a product or service.
- F. Gifts of nature used to produce goods and services.
- G. Person who makes products.
- H. Value of a good or service stated in monetary terms.
- I. The result of decision making. The other good or service which could have been produced or purchased instead of the one that was chosen.
- J. A specific amount of money charged to a borrower or money given to a lender for the use of his/her money.
- K. The legal minimum (least) price that a supplier may charge for a good or service.
- L. That price at which the quantity consumers want to buy is equal to the quantity the suppliers are willing to supply.
- M. A period in which economic activity slows down.
- N. Something that an individual wants. A desired object.

- O. Anything that is generally acceptable in exchange for goods and services.
- P. Money obtained through the sale of services or products.
- Q. Refers to the fact that resources are insufficient to produce all the goods and services people want.
- R. Tasks done by people that satisfy consumers' wants. Performing tasks for payment.
- S. The amount of goods or services made available by producers.
- T. Money collected from people for the support of the government.
- U. The amount of desire for a good or service.
- V. Buying an item now and paying for it at a later time.
- W. The legal maximum price for a good or service.
- X. A person who uses goods and services.
- Y. Those things created by people's efforts that can be used to produce goods and services in the future.
- Z. Anything that can be used to produce goods and services or to satisfy wants and needs.
- AA. Money in the form of gifts.
- BB. People and their physical and mental capacities.

TEST RESULTS

MATCHING TEST RESULTS

The figures on this page represent the per cent of students correctly matching each term with its definition.

VOCABULARY WORDS	6th GRADE: 44 Students		7th GRADE: 42 Students	
	PRE	POST	PRE	POST
1. Goods	25	75	36	90
2. Service	70	91	55	98
3. Producer	86	100	98	98
4. Consumer	75	100	88	95
5. Unearned Income	18	98	38	95
6. Earned Income	45	84	45	95
7. Natural Resources	91	98	88	100
8. Capital	5	66	7	71
9. Productive Resources	32	73	30	71
10. Scarcity	32	82	40	88
11. Human Resources	0	82	5	88
12. Price	55	82	62	93
13. Opportunity Cost	16	82	36	98
14. Money	30	94	64	100
15. Wants	27	70	43	83
16. Profit	86	100	79	100
17. Taxes	91	100	90	100
18. Credit	70	100	81	100
19. Interest	52	93	79	100
20. Price Ceiling	70	98	60	95
21. Price Floors	68	100	60	95
22. Supply	73	93	69	95
23. Demand	32	70	55	90
24. Inflation	75	100	90	98
25. Trade-off	14	89	26	98
26. Incentive	7	80	29	83
27. Recession	61	93	74	98
28. Market Price	43	66	45	90

DISCUSSION OF TEST SCORES

Although the test scores showed an overall improvement from the pretests to the posttests, they should not be used to justify employing a simulation game technique in teaching economics, as opposed to other methods. Justification was not the intent of the testing as was stated in the "Methods" section of this paper. The results of the testing revealed some weaknesses in both the test design and the amount of time the instructor dealt with each concept in the game.

The matching test scores showed a dramatic improvement from pretesting to posttesting, as compared to the multiple-choice test scores. This difference was probably due in part because the students were warned that they would have the matching test, and they could easily go to their notebooks to memorize the terms. The questions on the multiple-choice test depended upon understanding and applying more formal concepts that could not be easily memorized. Much of the difficulty in the matching test was a result of having several definitions that were similar, such as those given for "goods", "wants", and "demands" or for "productive", "human", and "capital" resources.

Many of the multiple-choice questions were too difficult for the students to answer correctly, either because the instructor did not devote enough time to discussing them; or because some of the questions were made too difficult by including answers like "none of the above" and "both a and b." These types of answers should be eliminated from the tests for this grade level. Also, more time will have to be devoted to determine which level of thinking each question demands from the students. A few questions (and concepts) may have required the students to think on too high a level.

In general, the tests did show that the students acquired some knowledge of economics concepts. Exactly to what extent the simulation game contributed to that acquisition could not be determined by the evaluation design followed in this project. That question may be partially answered by more controlled studies comparing this program with a program consisting of only the lecture-discussion part.