

DISCOVERY

INTRODUCTION

You are about to begin DISCOVERY—a simulation which recreates in your classroom some of the hardships and excitement experienced by early American colonists. You will learn why colonists came to North America from Europe and learn why geography, natural resources and nature are so important to colonizing settlers.

As the simulation begins, five or six students join together as colonists. Your first objective is to survive all the hazards you encounter. Your ultimate goal is to make your colony the biggest, richest, most successful colony in the New World. Imagination and creativity are very important for problem solving during DISCOVERY. An imaginative, creative person may propose an ingenious idea that saves the colony from disaster.

PHASE 1: PREPARING TO SAIL

During Phase 1, you study why people explore and establish colonies. You also study map making and flags. Fate determines which type of colony you will establish. Together with your other colony members, you decide what supplies you will carry with you on your trip and where you will settle. Various assignments allow you to apply the knowledge you have learned and demonstrate your critical-thinking skills.

How well you and your fellow colonists do on these assignments determines how much wealth (expressed as Wealth Units) your colony has when you set sail for the New World. The more Wealth Units you have, the better equipped you will be to survive in the New World. Sometimes the difference between a colony succeeding or failing is determined by how well colonists perform on these early assignments.

PHASE 2: STARTING YOUR COLONY

During Phase 2, you establish your colony and attempt to increase your Wealth Units by acquiring land, food and other goods. Each person in your colony functions as one of six colonial officials: the Governor, the Vice-Governor, the Auditor, the Mapper, the Recorder or the Trader. Together you decide how to increase your wealth, who will complete specific tasks and how you will defend your colony.

The “discovery” of America

Although Christopher Columbus landed in the Caribbean in 1492, Europeans did not realize just what he had discovered for many years. Columbus and other early explorers were searching for a direct sailing route to Asia. Only after many years of exploration did the Europeans determine that the American continents lay between Europe and Asia.

European adventurers

For several hundred years European adventurers made the long land journey to the Far East and Spice Islands. They carried cloth from Flanders, swords from Spain and leather from Italy. They returned with fine silks, muslins and—most important of all—spices. These luxuries were in great demand among rich and powerful Europeans. However, in 1453 the Turks captured Byzantium and closed the overland trade routes from Europe to Asia.

Explorers attempted to reach the Spice Islands by sea. These early explorers stayed close to land, sailing down the western coast of Africa, around the Cape of Good Hope, up the eastern coast of Africa, then across the Indian Ocean to India, Ceylon and the Spice Islands. The trip was dangerous and long. Many sailors sought an alternative route, because such a route would bring great wealth and fame to the discoverer.

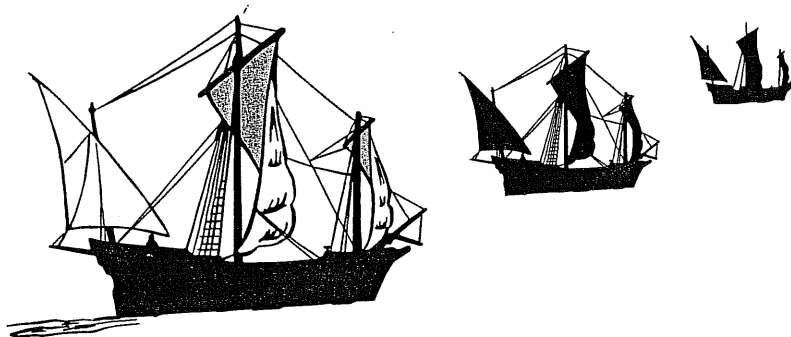
In 1492 ...

When Christopher Columbus set sail from Spain, he was seeking a new route to the Spice Islands. On October 12, 1492, Columbus spotted land, probably one of the Bahama Islands. He continued westward, stopping at Hispaniola (Haiti), Cuba and numerous other smaller Caribbean islands before returning to Europe. He thought that he had reached Asia, although he had not located the actual Spice Islands. Europeans were excited. Within a few years many expeditions sailed west in search of spices and silks, fame and fortune. Word spread across Europe of the exciting lands to the west.

Colonies in the Caribbean

Throughout the early 16th century, Spain, Portugal and France sent expeditions to the “New World.” Gold was the first of the riches discovered. Soon the explorers realized the value of abundant fertile land and numerous other natural resources. They established colonies in the Caribbean and began to take the wealth of the Americas back to Europe. The Caribbean became a busy, productive extension of the European empires of Spain and Portugal.

England began to develop as a European power late in the 16th century. By then—to England’s dismay—the rich lands of the Caribbean had all been claimed by other European powers.



The English look farther north

The English began exploring farther north, along the east coast of North America. They found neither fragrant spices nor native people dressed in gold. However, they did discover plenty of rich, fertile land. Early explorers such as John Cabot (1497 England), Ponce de Leon (1513 Spain), Walter Raleigh (1585 England) and Henry Hudson (1607 England, 1609 Holland) claimed large tracts of land. It was relatively easy to claim land, but to actually control it, the countries needed to establish colonies, inhabited by people who would live there to defend the claim.

English colonies in North America

The earliest English colony was established in 1584, on Roanoke Island, off the coast of North Carolina. By the next spring, the colony had disappeared without a trace. As years passed, English explorers established small colonies or plantations from Cape Cod to the Carolinas. Like the first, many of these simply disappeared. But the English persisted. Finally, small colonies such as Plymouth and Jamestown began to take hold. The English became permanent residents of the New World.

Colonies were not all created equal

Some early colonies were sponsored by national governments. Some colonies were sponsored by private companies seeking profits from new products and markets. Some early colonies were begun by individuals seeking freedom from religious or political oppression. The wealth of the various colonies differed based upon the wealth of the sponsors or founders.

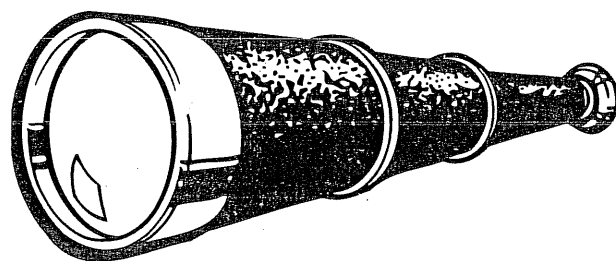
Settlers came to the New World colonies for many different reasons:

- some sought to escape adverse living conditions
- some sought freedom to practice their religious faith
- some sought to gain wealth
- some sought adventure and a new life

Setting up a colony

When colonists set sail for the New World, they were totally responsible for their own survival. In the wilderness there were no stores, factories or workshops available. Supply ships arrived only occasionally, after sailing for many months, with no guarantee that the cargo included needed items. Therefore, the colonists tried to plan carefully. They either carried with them everything they needed, or took the tools and supplies necessary to make or build everything they needed.

Sailing ships in the 16th and 17th centuries were very small. When selecting cargo, colonists were forced to select items very carefully. The colonists took basic farm and household tools, furniture, seeds to plant, farm and draft animals, food to eat until crops could mature, cloth and their ingenuity and creativity.



All explorers and colonizers need to have solid map skills before sailing to unknown territory. The following activities will allow you to learn new map vocabulary, practice reading and interpreting maps, and ultimately will help you design your own map using your knowledge and creativity.

Map Skills Assignment 1

A map can give much information and answer many questions, but only if you are able to read it accurately. You read a map by referring to its legend. The legend will define the meaning of the symbols used to identify natural or artificial features on the map. The legend also indicates the scale of the map (that is, how many inches or centimeters represent miles or kilometers).

Map Vocabulary

- bay an extension of a sea or ocean into the land
- canal an artificial waterway
- cape a point of land projecting into a sea or an ocean
- desert an arid region that receives little precipitation
- glacier a huge mass of ice originating from compacted snow
- isthmus a narrow strip of land connecting two larger land masses
- legend a series of symbols and their meanings describing features of a map
- peninsula a long projection of land into water, connected to the mainland by an isthmus

Directions Part 1

Using the legend, locate the following geographical features on the map and color as indicated:

1. A lake (color dark blue)
2. A bay (color light blue)
3. A swamp (color green)
4. A canal (color red)
5. A cape on the southern side of the island (color yellow)

Directions Part 2

Locate natural and man-made geographical features and give the name of an example from the map.

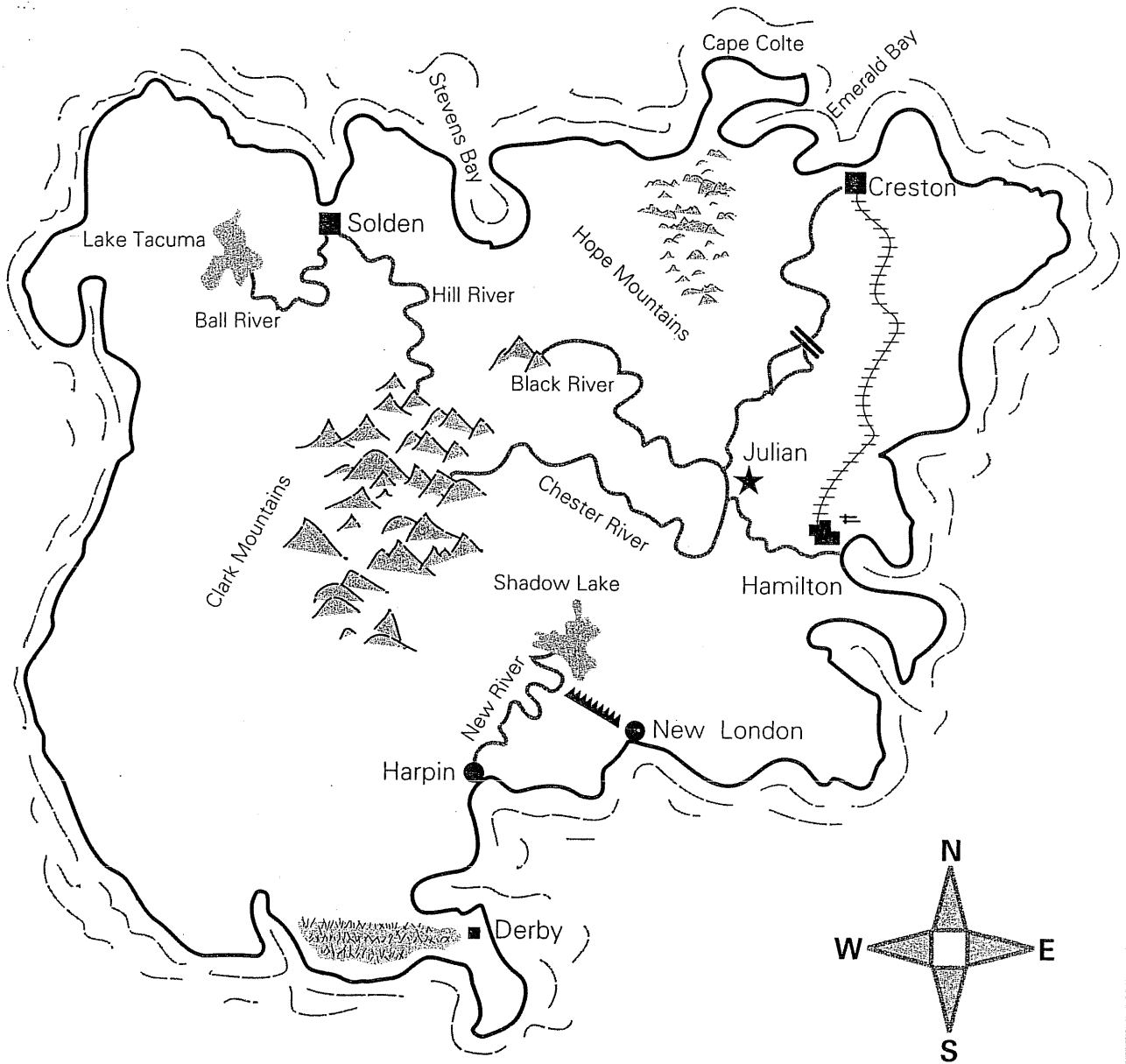
6. A city with a population of 1,000,000 or more _____
7. A mountain range with peaks under 10,000' elevation _____
8. Two cities connected by a railroad _____
9. A city with an airport _____
10. A city with a population of 50,000 to 249,999 _____
11. A mountain range with peaks 10,000' elevation or more _____
12. A river that empties into an eastern bay _____
13. A northern bay _____
14. A city on a southern peninsula _____
15. The capital of Odensa _____

Directions Part 3

Add the following features to the map.

16. A river named the Clark Fork flowing southwest from the Clark Mountains
17. An airport in a city of 50,000 to 249,999
18. A desert named the Obi Desert on the western side of Odensa
19. A glacier in the Clark Mountains
20. A city named Talli with a population of 30,000 approximately 200 miles northwest of Lake Tacuma

ODENSA



Legend

● Cities pop. 2,000 – 9,999	Mtns. under 10,000' elevation	Swamps
● Cities pop. 10,000 – 49,999	Mtns. 10,000' elevation plus	Deserts
■ Cities pop. 50,000 – 249,999	✈ Airports	●●●●●●●● Rapids
■ Cities pop. 250,000 – 999,999	++++ Railroads	== Dams
■ Cities pop. 1,000,000 or more	Canals	
★ Capital cities	////// Ice fields–glacier	

0 50 100 150 200 250 300
Scale 1" = 200 miles.

Latitude and longitude lines create a grid pattern that plots locations on a map. Every location on a map is identified by two numbers, one for latitude and one for longitude. For example, Washington D.C. is just south of the intersection of 39° N latitude and 77° W longitude.

Map Vocabulary

butte	an isolated hill or small mountain with steep sides and a flat top
degree	a measure of distance equal to 1/360th of the circumference of the earth
gulf	a large part of an ocean or sea that extends into the land
latitude	a measurement of distance north or south of the equator expressed as degrees (°); the equator is 0° latitude
longitude	a measurement of distance east or west of an imaginary line running through Greenwich, England, expressed as degrees (°); Greenwich is 0° longitude
minute	a measure of distance equal to 1/60th of a degree; one degree equals 60 minutes
prairie	a large, level tract of grassland
rapids	usually a shallow part of a river with a fast current
river delta	a wide, alluvial mouth of a river
swamp	a wet, spongy land sometimes partially underwater

Directions Part 1 Locate the following geographical features on the map of Washaho. Color as indicated.

1. A river that can be navigated from the east coast (color dark blue)
2. An isthmus (color red)
3. A river delta (color green)
4. A desert (color brown)
5. A gulf (color light blue)

Directions Part 2 Locate the significant geographical features found on the map of Washaho at or near these latitudes and longitudes. Describe what you find.

- | | |
|-----------------|------------------|
| 6. 23° S 102° W | 9. 18° S 109° W |
| 7. 16° S 103° W | 10. 19° S 105° W |
| 8. 22° S 107° W | |

Directions Part 3 Add these geographical features to the map of Washaho at or near the specified latitude and longitude.

- | | |
|--------------------------------|--|
| 11. A lake at 18° S 104° W | 14. An island at 23° S 104° W |
| 12. A city at 20° S 103° W | 15. River rapids at 21° S 102° W |
| 13. An airport at 16° S 105° W | 16. A dam on the Elk River at 20° S 103° W |

Directions Part 4 Select the best answer to the following questions about geography.

17. Where would you most likely find the source of a river?

a. a delta	b. mountains
c. a butte	d. a valley

18. Where would you most likely find a major city?

a. in the mountains	b. on a river delta
c. on a cape	d. on a bay

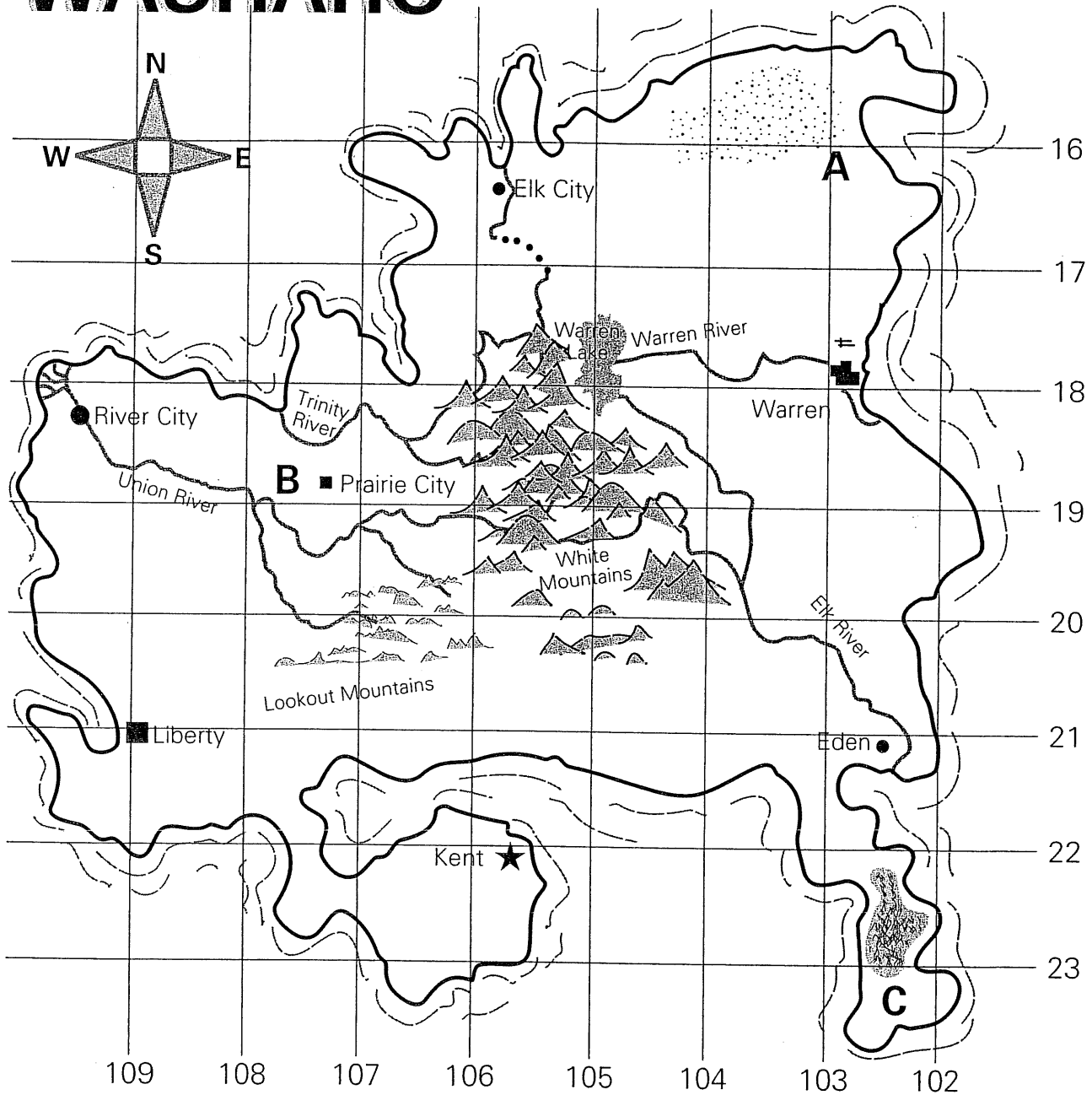
19. The best farm land would be found at (select the answer from the letters on the map)

a. A	b. B	c. C
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20. Where would you most likely find a swamp?

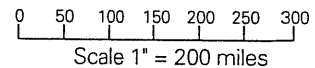
a. in the mountains	b. on the high plains
c. in a coastal lowland	d. on a cape

WASHAHO



Legend

● Cities pop. 2,000 – 9,999	Mtns. under 10,000' elevation	Swamps
● Cities pop. 10,000 – 49,999	Mtns. 10,000' elevation plus	Deserts
■ Cities pop. 50,000 – 249,999	Airports	Rapids
■ Cities pop. 250,000 – 999,999	Railroads	Dams
■ Cities pop. 1,000,000 or more	Canals	
★ Capital cities	Ice fields–glacier	



MAP SKILLS ASSIGNMENT 3

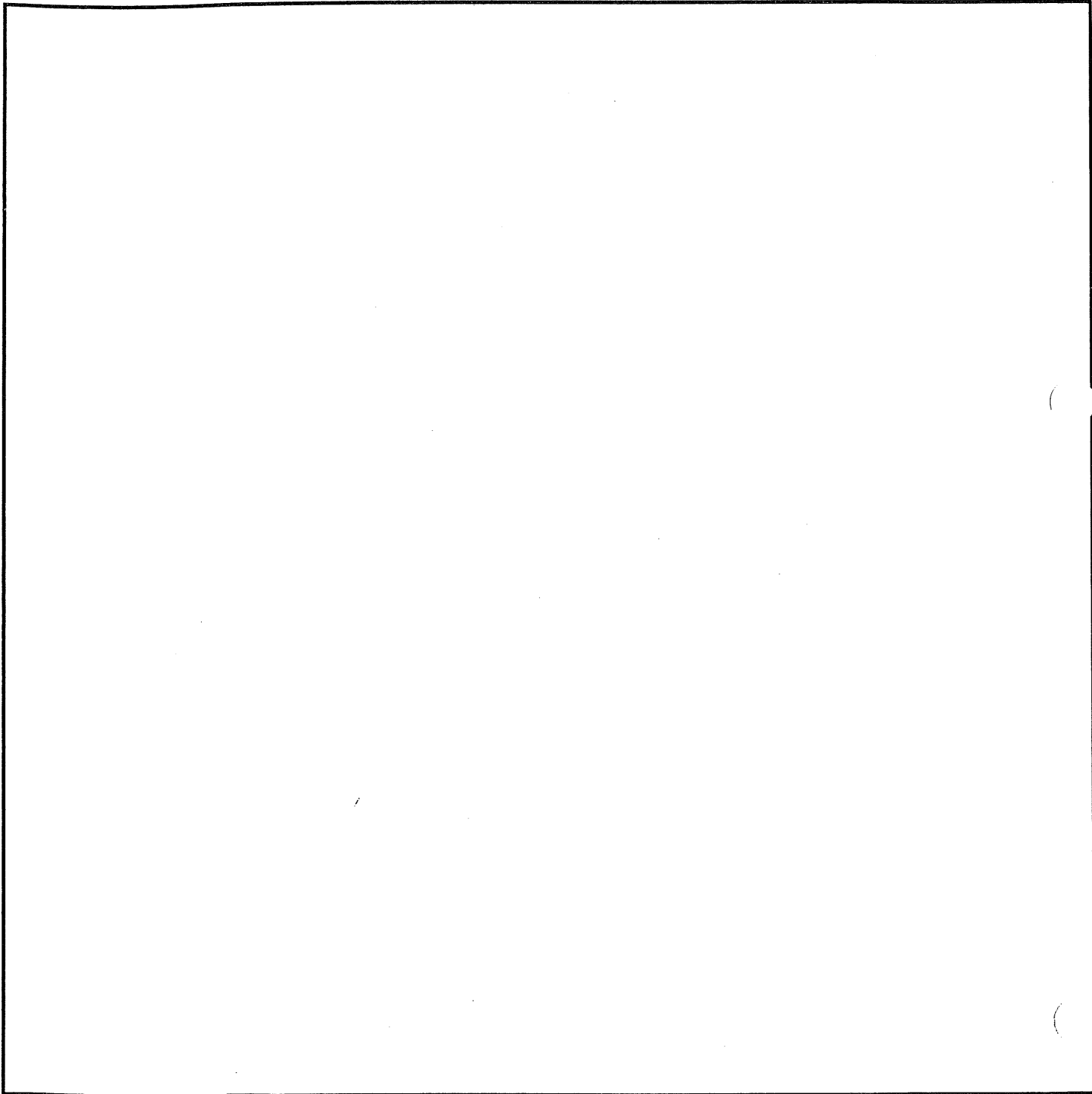
Directions Now that you have learned about latitude, longitude, map legends and scale, apply your knowledge and draw a complete map of a mythical country.

Step 1 Draw a rough design on plain paper. Include the following:

- latitude and longitude
- a legend and scale
- country name
- labeled cities, mountains, rivers, etc. (a reasonable number of each)

Step 2 Revise this design, devising a color scheme to show different geographical features.

Step 3 Transfer your map to the space below. Since this map will be graded, make it neat and complete.



You will be a member of a government colony, a private company colony or a religious freedom colony. The three types of colonies experienced different economic benefits. Study these three alternatives carefully so that you understand the benefits and consequences of each. Your reason for colonization will be determined by the roll of a die.

Government colony (even-even)

At the beginning of the simulation the government will:

- *Provide all your initial supplies and ships*
- *Send additional supplies at the end of rounds 7 and 15*
—two additional muskets and one horse for each adult
—50 units of food for each person

At the end of the simulation you will repay the government:

- *100 percent of the initial costs of supplies*
- *50 percent of your land wealth*
- *25 percent of your food wealth*

Private Company Colony (odd-odd)

At the beginning of the simulation the sponsoring company will:

- *Provide all your initial supplies and ships*
- *Send additional supplies at the end of round 15*
—one additional musket and one horse for each adult
—30 units of food for each person

At the end of the simulation you will repay your sponsor:

- *100 percent of the initial costs of supplies*
- *25 percent of your total Wealth Units*

Religious Freedom Colony (even-odd)

At the beginning of the simulation, you have no sponsor. You must:

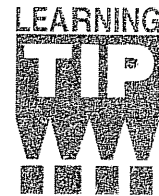
- *Pay 5,000 Wealth Units to sail to and provide for your colony*
- *Borrow the difference between what you have earned and what you need (5,000 Wealth Units)*

You will:

- *Record the amount of your loan on the Colonial Labor and Wealth Tally*
- *Receive no additional supplies*

At the end of the simulation you will repay your lender:

- *100 percent of the borrowed Wealth Units*
- *10 percent interest on the loan.*



Note that with all three of these reasons for colonization, you must repay your sponsor at the end of the simulation. Keep this in mind throughout the rounds, and budget your wealth carefully.

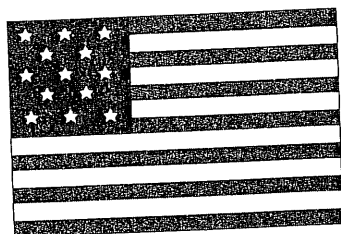
I am a member of a _____ colony.

MAKE A FLAG

A flag symbolizes the owner of a building or ship, or the identity of a nation. Each of the early colonies flew its own distinct and symbolic flag. The flag of the Virginia colony was quite different from the flags of New Hampshire or Pennsylvania. When the colonies joined together, they experimented with several flag designs before deciding to adopt a version very similar to the flag we fly today to symbolize our country. The flag designers chose a flag with seven red stripes and six white stripes. On this, the designers placed a blue field showing a star to represent each of the 13 colonies. The flag of the United States has changed since the first design, adding a star for each new state which joined the country.

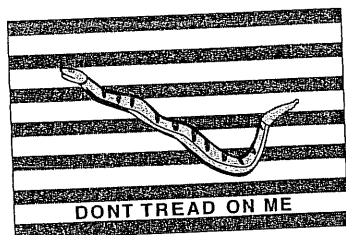
Your colony needs a flag, a symbol of who you are and what you believe. Consult encyclopedias or almanacs to study how flags are designed. With your fellow colonists, discuss what the symbols on various flags mean. Following your teacher's directions, design several flag ideas. Be original and imaginative in your design. Share your designs with other members of your colony. Work cooperatively to incorporate ideas and suggestions from every member of your colony in the final design of your colonial flag.

After you have a final design, your colony must choose an artist to draw your flag design on the paper provided by your teacher. Display this flag in your classroom. Draw at least 10 smaller flags to identify and claim your colony's land on the large classroom map. You may even compose a pledge of allegiance to the flag and the colony that it represents.



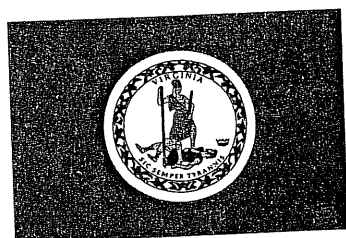
Original 13 colonies Flag

- 13 stripes, alternate red and white
- 13 stars, white in a blue field, representing a new constellation
- scattered star pattern was widely displayed in 1777



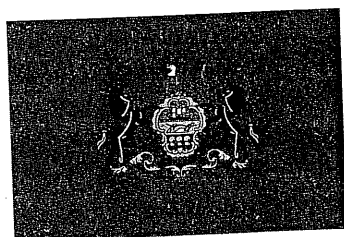
Original Navy Jack Flag

- 13 stripes, alternate red and white
- across the center: a rattlesnake in motion diagonally across the stripes
- motto "Don't Tread on Me" printed on the flag



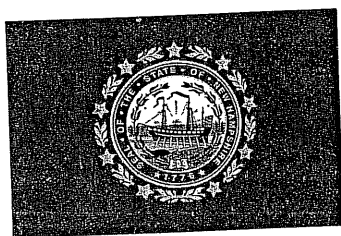
Flag of Virginia

- field of blue
- in the center, the front of the Seal of the State: Virtue striking down Tyranny
- motto "Sic Semper Tyrannis" (Thus always to tyrants) printed on the flag



Flag of Pennsylvania

- field of blue, edge of gold fringe
- in the center, two horses holding the State Coat of Arms: a ship, plow and wheat; an eagle; a cornstalk and olive branch
- motto "Virtue, Liberty and Independence" on a ribbon beneath the seal



Flag of New Hampshire

- field of blue, edge of gold fringe
- in the center, the Seal of the State: the Revolutionary War ship Raleigh surrounded by laurel to represent victory and the date of the first state constitution, 1776
- nine stars in a laurel wreath surround the Seal

My motivation for being a colonist

Begin to think of yourself as a colonist about to leave your homeland, embarking on this risky adventure to the New World. Briefly describe your personal motivation for being a part of this type of colony. Be creative and establish a personality for yourself as a colonist.

Earning Points

All members of your colony have earned points for completing assignments during Phase 1. Enter the points earned on Phase 1 assignments by all members of your colony on the following chart. Your colony will convert these points to Wealth Units in order to purchase ships and supplies for the trip to the New World. *The more points your colony members earn, the more Wealth Units you will have to spend on ships and supplies.*

Colonial Assignment Record

Members' Names	Map Skills Assignment 1	Map Skills Assignment 2	Map Skills Assignment 3	Map Skills Quiz	Flag Assignment	Total Points
Grand Total						

Converting Points to Wealth Units

You have completed all assignments in Phase 1 and are now ready to compute the wealth of your colony. Double check your total points entered on your Assignment Record and compare with the totals recorded by other members of your colony. All answers should agree. Once everyone in your colony agrees on your colony's **Grand Total**, you are ready to convert your wealth to Wealth Units. *Any Wealth Units earned during Phase 1 that are not spent on ships and supplies become gold reserves that you may use to pay off your debts at the end of the simulation.*

Colony's Grand Total	x 10*	Beginning Wealth Units

* If your group has six members, multiply by 10.
 * If your group has five members, multiply by 12

SELECTING CARGO

A successful colony must have and maintain sufficient population to accomplish all needed work, must provide adequate food for colonists and animals and must take enough tools and supplies to build and maintain a community. As a group, the members of your colony must decide what materials, supplies, animals, and people you need to begin your colony. Make your selections very carefully, then spend your colony's Wealth Units to purchase provisions for your ships.

Each ADULT costs 10 Wealth Units	Number of Adults	Total Spent
Adult		
TOTALS		

Each CHILD costs 5 Wealth Units	Number of Adults	Total Spent
Children		
TOTALS		

Each FARM ANIMAL costs 8 Wealth Units	Number of Units	Total Spent
Cats		
Chickens		
Cows		
Dogs		
Pigs		
Geese/Ducks		
Goats		
Mules		
Oxen		
Sheep		
TOTALS		

Each HOUSEHOLD ITEM costs 3 Wealth Units	Number of Units	Total Spent
Blankets and quilts (1 per person)		
Cabinet or chests (1 per family)		
Set of Clothing (2 per person)		
Set of Cookware (1 per family)		
Set of 4 Dishes (1 per family)		
Hammers (1 per family)		
Iron Kettles (1 per family)		
Knives (1 per person)		
Container of Needles, scissors, pins		
Spinning Wheels (1 per family)		
TOTALS		

Each Bag of SEEDS costs 2 Wealth Units	Number of Units	Total Spent
Barley		
Beets		
Cabbage		
Eggplant		
Oats		
Onions		
Potatoes		
Roses		
Rye		
Turnips		
Wheat		
TOTALS		

Each TOOL costs 8 Wealth Units	Number of Units	Total Spent
Adzes		
Awls		
Axes		
Hoes		
Planes		
Plows		
Rope		
Saws		
Scythes		
Shovels		
Trowels		
TOTALS		

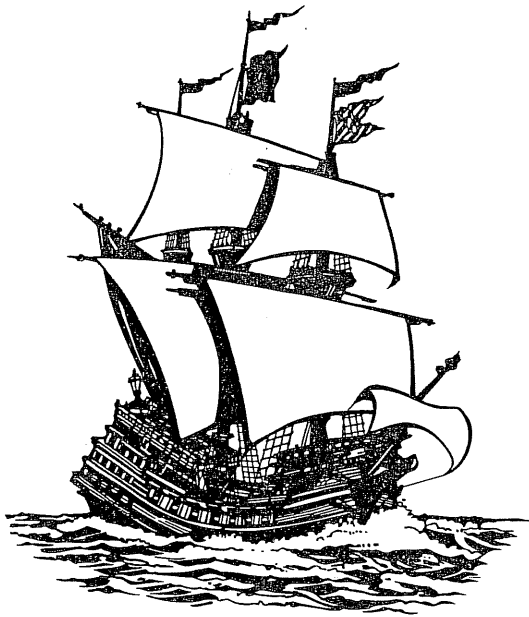
Each HORSE costs 15 Wealth Units	Number of Horses	Total Spent
Horses		
TOTALS		

Each MUSKET costs 10 Wealth Units	# of Muskets	Total Spent
Muskets		
TOTALS		

Units of food for adults (2 units of food per sailing round)	Total Spent	Total Spent
Food (price: 1 wealth unit=1 food unit)		
TOTALS		

Units of food for children & animals (1 units of food per sailing round)	Number of Units	Total Spent
Food (price: 1 wealth unit=1 food unit)		
TOTALS		

TOTAL WEALTH UNITS SPENT: _____ (add up all the totals)



Mayflower:

Crew 15-20 (exact number unknown)

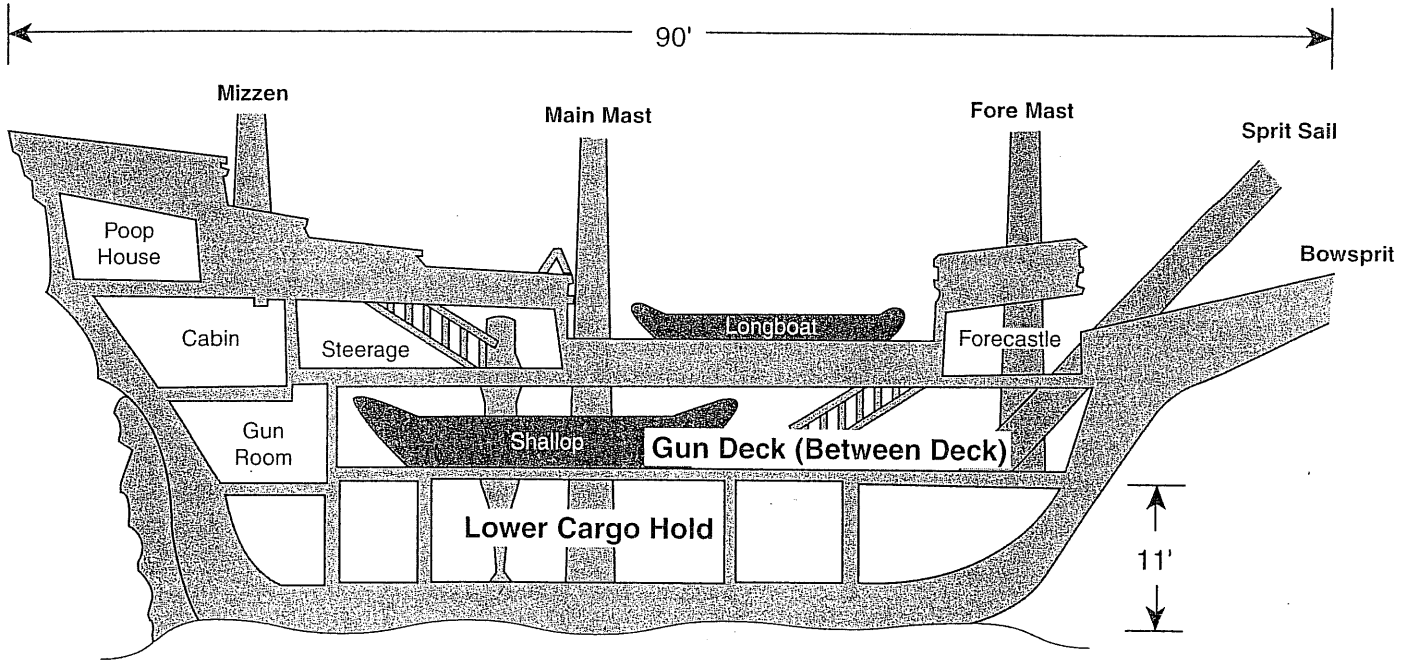
Passengers 102

90' long x 24' wide (26' at it's widest)

Left Plymouth, England September 6, 1620

Sighted land off Cape Cod November 9, 1620

Distance Traveled: approximately 2,750 miles



C A R G O L I S T D I R E C T I O N S

Now you will select your supplies, name your ships and complete a **Cargo List** for each one. *Every member of your colony keeps a record of supplies and costs.* Be sure that the **Cargo Lists** of all members of your colony agree. Carefully examine this example of how you fill out a **Cargo List**, then complete the **Cargo List** blank for your ships. If you have any questions, check with your teacher.

Sample Cargo List

The *Dutch Flyer* has on board cargo with a total value of 1,446 Wealth Units.

Ship: <i>Dutch Flyer</i>	Cargo Item	Cost (Wealth Units)	x	Number of Units of Cargo	=	Wealth Units Spent
	Adult	10		24		240
	Child	5		6		30
	Farm animals	8		30		240
	Horses	15		6		90
	Food	1		400		400
	Household items	3		22		66
	Muskets	10		4		40
	Seeds	2		50		100
	Tools	8		30		240
Wealth Units Spent TOTAL						1,446

Hints for successful Cargo selection:

- Mindfully decide how many people you will take to the New World.
- Carry enough food supplies for adults, children and livestock to last throughout your voyage, during the landing process and during the early days of your colony. Sailing the could take from four to 10 or 11 rounds, depending on "fate." 3,500 miles

Food Requirements:

Each adult = 2 food units per round.

Each child, farm animal or horse = 1 food unit per round.

For example, the *Dutch Flyer* must carry food supplies for all settlers and animals.

24 adults	x	2 food units	48
6 children	x	1 food unit	6
36 farm animals and horses	x	1 food unit	36

The *Dutch Flyer* must carry **90 food units per round** to prevent starvation during the voyage. The colonists must also plan some extra food for themselves for the landing procedures and after they land.

Does the *Dutch Flyer* carry enough food?

Paying for Cargo

Some colonies were sponsored by governments or by private companies. Some colonies borrowed money to pay for supplies. At the end of the simulation you must repay your colony's sponsor or lender. Complete the following chart to help you account for your beginning Wealth Units, your expenses and the amount of your debt to your sponsor or lender.

Total Wealth Units Spent on Cargo	
Phase 1 Total Wealth Units Earned	
Amount of Loan <small>(Difference between Wealth Units spent and earned)</small>	

C A R G O L I S T

SHIP	Cargo Item	Cost (Wealth Units)	x	Number of Units of Cargo	=	Wealth Units Spent
	Adult	10				
	Child	5				
	Farm animals	8				
	Horses	15				
	Food	1				
	Household items	3				
	Muskets	10				
	Seeds	2				
	Tools	8				
Wealth Units Spent TOTAL						

SHIP	Cargo Item	Cost (Wealth Units)	x	Number of Units of Cargo	=	Wealth Units Spent
	Adult	10				
	Child	5				
	Farm animals	8				
	Horses	15				
	Food	1				
	Household items	3				
	Muskets	10				
	Seeds	2				
	Tools	8				
Wealth Units Spent TOTAL						

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	Child	5				
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	Horses	15				
	Food	1				
	Household items	3				
	Muskets	10				
	Seeds	2				
	Tools	8				
Wealth Units Spent TOTAL						

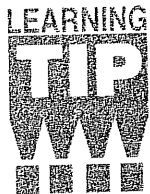
Hints for loading a sailing ship:

When loading your cargo items, consider the possibility that a ship could be lost at sea. Distribute people, tools, supplies and food among your three ships in such a way that your colony will be able to survive if a ship sinks during the voyage.

Now you are ready to sail for the New World!



Remember: Each adult consumes two food units and a child, farm animal or horse consumes one food unit each during each sailing round.



The colony whose ships reach the New World first earns the right to first choice of land to settle.



Luck may determine which colony reaches land first, but a colony may overcome poor luck by making a wise decision as to where to locate your settlement.

Sailing

Your voyage is a long, lonely trip across 3,500 miles of treacherous seas. Each group of colonists draws a SAILING CARD which applies to all three ships for every sailing round until you reach the New World. SAILING CARDS determine your progress:

- SAILING CARDS simulate the hazards and fortunes of sea travel.
- SAILING CARDS indicate how many miles your ships progress for each travel round.
- Record the results of your SAILING CARDS on the **Sea Log**.
- Once your ships set sail, subtract from your food supplies the total amount of food your people and animals consume during each Sailing Round.
- If by chance you lose a ship during the voyage, your teacher will randomly select a ship to sink.

Good luck, good weather and happy sailing!

Landing

Your landing strategy is very important. Remember what you learned about geography and the physical features of a map. Study the map of the New World, then decide together with other members of your colony where you will establish your colony. You may only claim one square of land at this time.

Once you select which square of land you wish to settle, request a LANDING CARD. This card will indicate whether your landing attempt is successful, and will give other consequences of your landing attempt. Some consequences will work in your favor, others will work against you.

- You can land anywhere except on land already occupied by another colony.
- You can settle on the coast or travel up navigable rivers and land upstream.
- The value of the land varies, depending on its location, physical features and natural resources.
- The exact value of the land remains unknown until settlers claim it for their colony.
- Once you select your colony site, your teacher will tell you its value.
- Record the value on your map. Land values range from 50 to 500 Wealth Units per parcel.

S E A L O G

The Pilgrims on the Mayflower spent two months slowly bobbing westward before reaching Plymouth. To recreate this trip, your colony will draw one SAILING CARD for each Sailing Round.

Every member of the colony keeps a record of your ocean voyage. Complete the following information for each of your colony's ships. Be sure that the **Sea Logs** of all members of your colony agree.

Ship 1

Sailing Round	1	2	3	4	5	6	7	8	9	10	11
Beginning miles	3500										
Miles covered											
Miles yet to cover											
Beginning food units											
Food units consumed											
Food units left											

Ship 2

Sailing Round	1	2	3	4	5	6	7	8	9	10	11
Beginning miles	3500										
Miles covered											
Miles yet to cover											
Beginning food units											
Food units consumed											
Food units left											

Ship 3

Sailing Round	1	2	3	4	5	6	7	8	9	10	11
Beginning miles	3500										
Miles covered											
Miles yet to cover											
Beginning food units											
Food units consumed											
Food units left											

Your colony will be affected by elements beyond your control:

- Will bad weather destroy your crops?
- Will the native people be friendly?
- Will floods, fire, disease or hostilities threaten your colony?

The members of your colony must agree on how to cope with all situations, how to make decisions, how to divide responsibilities, and how you will govern your colony. Study the duties of the six colony officers and as a group decide who will fulfill each role.

Governor

- Is responsible for all colony activities
- Ensures that other officers complete their assigned tasks
- Presides over colonial meetings, settles disputes, and completes all jobs not assigned to any other colonial officer

As the colony's leader, the Governor must be conscientious, diplomatic, and able to delegate tasks to others.

Vice-Governor

- Fills in for any officer who is absent
 - Assists any officer who needs help
- As second in command, the Vice-Governor must be cooperative, good with details, and able to persuade all colony members to work together.

Auditor

- Collects all money and properties due the colony and pays all colony debts at the end of each round
- Audits the records of all colony members for accuracy and completeness
- Ensures that the **Daily Labor and Wealth Chart** is completed accurately

As the financial guardian of the colony, the Auditor must be careful and accurate, and good with math and numbers.

Important Info:

Remember, each colony member also keeps his or her own records of all activities and transactions.

Mapper

- Records all land bought, sold or traded by every colony
- Listens for and records any vital map-related information revealed during the simulation (for example, the locations of various Native American lands, or the values of land squares)
- Relays any question or problem to the teacher

The Mapper must be a good listener and must be skillful at reading and interpreting maps. He or she is the only member of the colony allowed to communicate with the teacher. If any member of a colony wants a question answered or has a problem or complaint, he or she must communicate with the Mapper.

Recorder

- Completes the **Daily Labor and Wealth Chart**

As the record keeper of the colony, the Recorder must be neat, well organized and good at math. This may well be the most difficult and most important office in the colony.

Trader

- Participates in all trading sessions
- Is the only person who may negotiate with the Native Americans

The Trader must be diplomatic and able to negotiate for the needs of the colony. The Trader faces skill challenges that determine the outcome of strategic hostilities.

PROCEDURES FOR EACH ROUND

1. Each Settlement Round begins with a five-minute colonial meeting. The Governor presides over the meeting, during which the members of the colony:
 - Determine the colony's population by adding the number of adults and children alive at the end of the prior round
 - Evaluate the colony's food supply
 - Decide what jobs must be done
 - Distribute the population of the colony among the three categories of work: Farming, Hunting or Fishing
2. For each Settlement Round, the Recorder has five minutes to document the status of the colony and the decisions of the colonial officers on the **Daily Labor and Wealth Chart**.
 - During different rounds colonists may work towards different goals
 - If the colony is low on food, you may assign extra people to farm, hunt or fish
3. The Recorder subtracts from your food supplies the total amount of food your people and animals consume during each Settlement Round, and adds all food gained.
 - Each adult consumes two food units
 - Each child, farm animal and horse consumes one food unit each
 - FATE CARDS determine how much food your colony produces
 - You may trade for food
4. Draw, read and discuss a WEATHER CARD.
5. If weather permits, a five-minute trading session is open to all colonies wishing to trade for land or food either with another colony or with one of the three Native American groups.
6. Persons in locations or occupations unaffected by the WEATHER CARD draw, read and discuss FARMING, HUNTING and FISHING CARDS.
7. Each colony draws, reads and discusses a GENERAL WELFARE CARD.
8. The Recorder enters the consequences of the Fate Cards and successful or unsuccessful trades. The Auditor checks all calculations. Each colony member also completes an individual record of colonial status and decisions.

RULES FOR COLONIES

While working and expanding your colony, you must abide by the following rules, which apply to all colonies:

1. A colony that runs out of food is wiped out by starvation. Work with your teacher to determine what the members of your group will do if this happens to your colony.
2. A colony may travel only limited distances each round:
 - Travel across eight squares by water, either along the coast or on a navigable river
 - Travel across four coastal or inland land squares or two mountain squares
 - Your teacher may approve travel on both land and water during one trade expedition
 - Travel from one square to another along the diagonal is acceptable
3. A colony can trade only with colonies or Native American groups to which it can travel in that round.
4. A colony may gain land occupied by others either by trade or by military action
 - A colony may expand only to land squares directly bordering land it already owns
 - The Trader may approach another colony or a Native American group to negotiate for land
 - The colony may plan a hostile campaign to take land from others
5. If disaster strikes, colonists may slaughter domestic animals for food:
 - One domestic animal provides 15 units of food.
 - Colonists may elect to trade for food with other colonies or Native American groups.
6. Occasionally a question will arise that is not covered by these procedures and rules. When this happens, your class and your teacher will discuss the question and decide upon the most realistic solution.
7. Your colony will likely overcome any bad things that happen and will thrive in your exciting New World adventure if all colony members strive to:
 - Cooperate with one another to make the best possible decisions
 - Work hard



As DISCOVERY progresses, your colony needs to make decisions about how to expand. If you want more land, you must decide whether you will trade items you have in surplus to another colony or to a Native American group, or whether you will attempt to take the land you want by force. Like the original colonists, you will have to live with the results of your decisions.

Expansion through trade

If your colony needs more land, you may send your Trader to open trade negotiations with another colony or with your teacher who represents all Native Americans.

- The land your colony wishes to annex must border your colony
- Your Trader must complete the trade by the end of the round
- Your teacher will announce the results of an attempted trade with Native Americans

Expansion through hostilities

Your colony may decide to gain land by hostile action against another colony or the Native Americans currently occupying that land.

- Your Recorder completes a Battle Plan provided by your teacher
- Enter the number of offensive forces on the **Daily Labor and Wealth Chart**
 - If you plan to attack the Native Americans, you must assign at least 10 adults to your offensive forces
 - If you plan to attack another colony, your Trader represents your colony and attempts a Skill Challenge
- A Strategic Hostility Forces Chart determines the outcome of your attack against another colony
- A Interaction Chart determines the outcome of an attack against a group of Native Americans

Defending your colony

As the simulation progresses, your colony may be threatened by the hostile actions of other colonists or Native Americans. Plan to defend yourselves by assigning some of your colonists as defensive forces on the **Daily Labor and Wealth Chart**.



DAILY LABOR AND WEALTH CHART

		ADULTS	CHILDREN	FOOD	MUSKETS	LAND UNITS	HORSES	FARM ANIMALS
BEGINNING UNITS (THE AMOUNTS FROM ALL 3 SHIPS)								
ROUND ONE	Food Use							
	Weather _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								
ROUND TWO	Food Use							
	Weather _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								

DAILY LABOR AND WEALTH CHART

		ADULTS	CHILDREN	FOOD	MUSKETS	LAND UNITS	HORSES	FARM ANIMALS
BEGINNING UNITS (THE AMOUNTS FROM ALL 3 SHIPS)								
ROUND THREE	Food Use							
	Weather _____							
	NATIVE Interacting / Trading _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
	COLONY Interacting / Trading _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								
ROUND FOUR	Food Use							
	Weather _____							
	NATIVE Interacting / Trading _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
	COLONY Interacting / Trading _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								

DAILY LABOR AND WEALTH CHART

		ADULTS	CHILDREN	FOOD	MUSKETS	LAND UNITS	HORSES	FARM ANIMALS
BEGINNING UNITS (THE AMOUNTS FROM ALL 3 SHIPS)								
ROUND FIVE	Food Use							
	Weather _____							
	Interacting / Trading _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
	Strategic Hostility Forces Defensive _____ Offensive _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								
ROUND SIX	Food Use							
	Weather _____							
	Interacting / Trading _____							
	Farming # Units gained or lost _____ x # farmers _____ = _____							
	Hunting # Units gained or lost _____ x # hunters _____ = _____							
	Fishing # Units gained or lost _____ x # fishing _____ = _____							
	General Welfare _____							
	Strategic Hostility Forces Defensive _____ Offensive _____							
ENDING UNITS TOTAL = BEGINNING UNITS OF NEXT ROUND								

ENDING THE SIMULATION

The “winner” of the DISCOVERY simulation is the colony with the most Wealth Units after all rounds and after all debts have been paid.

1. Compute the value of the population and resources of your colony using the chart below. Enter Asset values from the **Daily Labor and Wealth Chart**. Add all Asset values together. Colonists may not slaughter animals at the end of the simulation to gain Wealth Units.
2. Compute the value of all land your colony controls. The value should be marked on land squares on your map. Add the value of all colony land squares and multiply by 1.5 to represent the improvements made by your colonists.
3. Add all population, resources and land totals to arrive at the final Total Wealth of your colony.

Asset	Value	Number of Units	Value in Wealth Units
Adult	10		
Child	5		
Farm animals	8		
Food	1		
Horses	15		
Household items	3		
Muskets	10		
Seeds	2		
Tools	8		
Total Value of Assets			
Land	Total of all squares multiplied by 1.5		

4. Repay all debts incurred when preparing to sail to the New World, including any interest payments in the form of a percentage of land and/or Wealth Units. You do not need to repay your sponsor or lender for the value of the people in your colony, only for the supplies.

Beginning Wealth Units	Land Value	Value of Assets	Total Wealth
	+	+	= _____
Beginning Loan Value or Total amount due sponsor			- _____
Final Value of Colony			= _____

Congratulations on your successful colonization of the New World!

