Scott Lightfoot
Toledo School For The Arts

"Second Star To The Left And Straight On 'Till Morning"
- Spreadsheet Driven Exploration Of Pacific Asian Geography-

Purposes:
To enhance the student's general knowledge of the geography of Pacific Asia, including coastal Japan, Korea, China, Indonesia and the South Pacific.
To build on the student knowledge of European Trading practices and the nations involved such as the Dutch, Portuguese, Spanish and French as they relate to the exploration of Asia.
To allow students to experience using spreadsheet technology to manage an adventure in a role-playing activity, adding enhancements in mathematics operations as well as teamwork as students work in pairs or groups to complete the activity.

Rationale:
Using technology based lessons will allow students to build essential skills in the technology arena, while reinforcing the concepts in geography, history, map reading, and team work. This lesson is best used in conjunction with units on Asia, Asian Exploration, Pacific Exploration, Culture Clash or Economics.

Materials:
Students will need access to computers which have some kind of Productivity Software which includes a basic spreadsheet program (Microsoft Office Workbook, or Apple Works - Spreadsheet are recommended).
   1) UPTO DATE COMPUTER with productivity software including a spreadsheet program, and if possible an internet connection.
   1) SPREADSHEET TEMPLATE - see attached. The template comes with a teacher users guide explaining the pre-programmed elements of the spreadsheet.*
   2) EXPLORATION MAP - see attached. The map indicates the region, divided into exploration regions (labeled with letters) and 'Ports of Call' (labeled with black dots). Finally the map indicates four European starting points
        DUTCH start @ A
        SPANISH start @ E
        BRITISH start @ L
        PORTUGUESE start @ Y
   3) TOKENS - not included. Should have several of 4 types to coincide with European Groups
   4) DICE (2-six sided) - not include. Each group and the teacher should have a set.

Activites:
Before attempting this activity it is recommended that the students have a basic understanding of the four primary nations of exploration, their history, their historical explorers and some sense of the use of ocean based trade, conquest and colonization.

1) The students will complete the activity in the time allowed (usually 2 - 3 weeks with 2-3 sessions in the lab are needed to get sufficient experience to make the activity worthwhile.
2) Students will use and print out each week's spread sheet to show understanding and demonstrate technology mastery.

Assessment:
1) ACTIVITY EVALUATION - students will be evaluated on teamwork, cooperation.
2) TECHNOLOGY EVALUATION - students will be evaluated on their ability to use and maintain spreadsheets.
3) GEOGRAPHY / HISTORY ACTIVITY - students can be evaluated using a variety of methods relating to Asian geography and history of the reason, depending on the needs of the classroom teacher.

Grade Adaptation:
1) This activity would be ideal for any grade above grade 6 - through 12.
2) Upper level classes could include research or written papers on explorers or early cultural development or government of various Asian countries.
3) The upper grades could also build their own spreadsheets and even program the formulas using the guidelines of the program.

Further Reading / Reference Materials
The Encyclopedia of World History, Sixth Edition - Peter N. Stearns, general editor, copyright 2001, Houghton Mifflin Company.
History of India: The British East India Company & Colonization -
Economic History Of Bengal - From Plassey to the Permanent Settlement - N.K.Sinah's, Calcutta, 1956)
Liverpool and the English Slave Trade - Richardson, David
English Society in the Eighteenth Century - Porter, Roy, Penguin Publ., 1982
Articles To Read
European Domination of the Indian Ocean Trade
Historic Aspects of Craft and Trade in India
The Colonial Legacy - Some Myths and Popular Beliefs
Asian Based World Economy: 1400-1800 - Frank, Andre Gunder
Asia Comes Full Circles in a Round World - Frank, Andre Gunder

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1) Divide class into 2 groups:
      <u>EUROPEAN EXPLORERS</u>
      A) DUTCH - start at 'A'
      B) SPANISH - start at 'E'
      C) BRITISH - start at 'L'
      D) PORTUGUESE - start at 'Y'

      <u>INDIGENOUS PEOPLE</u>
      E) JAPANESE & KOREAN LEADERS - occupy Ports A,B,P,Q
      F) CHINESE LEADERS - occupy Ports C,D,E,F
      G) INDONESIAN LEADERS - occupy Ports G, H, I, J, N, O
      H) SOUTHER ISLAND LEADERS - occupy Ports K, L, M,T, Z
      I)   OCEANIC ISLAND LEADERS - occupy Ports R,S, X, W, Y
            NOTE: Islands at U & V begin the game as unoccupied.

2) Distribute BLANK copies of printed SPREADSHEET to EACH group begins initial
   set-up of starting information.
      NOTE: it is essential that students complete the BLANK printed spreadsheet
         BEFORE working on the computer.
      A) Students fill in all GREEN areas at their discretion - or teacher instruction.
      B) Students will ROLL DICE and use the accompanying table to get information
        for the YELLOW AREAS.
      C) The SPREADSHEET is formulated to CALCULATE the information in the
        RED or PINK areas.
          NOTE: Advanced classes could discuss how formulas are created and
         used as part of a spreadsheet. With teacher assistance they could even
         figure out how to make the spreadsheet from the original example.

   1)GENERAL RULES OF THE GAME
   A) OBJECTIVE - for the EUROPEANS to control as many ports as possible
               - for the INDIGENOUS PEOPLE maintain control of as many
           ports as possible

   B) TURN PLAY PROCEEDURE

      1) MOVE TO ANOTHER REGION
      A) The team may move in ANY DIRECTION into any UNOCCUPIED
        region that is ADJACENT to one they are currently located.

      B) Action continues based on what is IN the region they are entering.
         1) If a region is EMPTY a team may enter in freely.
         2) If a region is EMPTY and has an UNOCCUPIED PORT
           that team may OCCUPY it if they roll an EVEN number on

a 6-sided dice. If they roll and ODD number they must
'stay-at-sea' until their next turn.
3) If a region is OCCUPIED by another TEAM'S SHIP there is a
chance that a 'battle at sea' could occur.

3) Continued from #3 previous page.

OPTION #1: RETREAT - the team in the region has the chance
to retreat to the nearest EMPTY region (if it contains
and unoccupied port the retreating team CANNOT
attempt to OCCUPY it as in B above)
OPTION #2: TREAT or TRADE - in this situation, EITHER team
can offer to form a treaty between the two vessels
or offer a trade for people or provisions to avoid a
sea battle.
OPTION #3:BATTLE AT SEA - Each team rolls one 6-sided die
simultaneously. EVEN number roll is a HIT for the
team DEFENDING the region. ODD number is a
HIT for the ATTACKING team. The first team to
score 3-hits wins the battle and the DEFENDING
team must retreat as described in OPTION #1.

2) OCCUPY A PORT

A) When a ship moves to a port, they need to obtain 'permission' from the
Indigenous people that already live there. The options are below:
1) TREAT or TRADE : when docking the indigenous people can
negotiate a treaty (for occupying the port) by trading for
things that they have on board ship (trade goods - gold)
2) FIGHT FOR THE PORT - If no negotiation can be made then
a battle could ensue.
A) Determine the attacker, ROLL two 6 sided die
simultaneously, EVEN - Indigenous People start
the battle, ODD - European Group start the battle.
B) DEFENDER can either retreat (give up the port)
or
C) BATTLE - follow 'Battle at Sea' as outlined above.
3) If an OCCUPIED port site is either negotiated or won in battle the
then follow the steps below to establish a new port.

B) If a team moves to a region with an UNOCCUPIED port and is
successfulin establishing a port site then they must leave behind the
following items to secure that port (these are subtracted from the
provisions on the ship.

MARINES - 1 unit
CLERGY - 1
AMBASSADORS - 1

C) Teams may elect to leave MORE than these units behind but not less.
D) Every 3 turns all occupied ports will be subject to one curse or blessing
roll which will determine the ongoing fate of that ports' occupation.
(see the chart for die rolls used in the game)

3) ENDING A TURN
A) Each turn represents 1 'month' of time either at sea or in port.
B) At the end of each turn the ship must recalculate its' remaining
provisions based on the following information.
C) Each month the CREW uses 1 unit of food and water each.
the passengers also use 1 unit of food for each group still aboard.
There for the formula for calculating how much food and water is used
each turn is:

$$PL = CP - CREW - (Marines + Ambassadors + Clergy)$$

Where PL is (Provisions Left) and CP is (Current Provisions)

NOTE: These calculations are done automatically on the spreadsheet
template used on the computers.
D) The Captain and First mate must keep track of provisions or risk dying
of thirst or hunger at sea.

4) REPLENISHING PROVISIONS
A) A ship which is nearly out of provisions must 'put-into-port' to restock.
B) A ship may put to port at any 'friendly' port (occupied by their country)
or put into and attempt to OCCUPY any UNOCCUPIED port as
described above.
C) A ship MAYNOT attempt to BATTLE or OVERTAKE a port occupied
by another country (if you are weak from hunger or thirst you wouldn't be
much use in a battle!)
D) Finally you may store two months provisions for each TURN you spend
in port (a port stay does NOT deplete your provisions).

5) CALAMATIES AT SEA
A) Seafaring adventures were not without hazard.Therefore every third
turn all ships at sea must roll the dice to determine if all is well on-board.
B) Consult the table provided to see what fates befall the ships as they
travel. Be sure to adjust your provisions or crew or passengers as
as indicated by the table.

GAME SET UP

EUROPEAN EXPLORERS

Each team of EUROPEAN EXPLORERS will roll one six sided dice for each category and record the resulting roll in the proper place on their PAPER spreadsheet.

Once all categories are finished teams will then use the spreadsheet template on the computer and enter the information as instructed there to begin the game.

GAME SET UP

INDIGENOUS PEOPLE

Each team of INDIGENOUS PEOPLE will roll one six sided dice for each category and record the resulting roll in the proper place on their PAPER spreadsheet.

Once all categories are finished teams will then use the spreadsheet template on the computer and enter the information as instructed there to begin the game.

SEAFARERS

CALAMATY OR BLESSING TABLE

On each third turn each ship at sea will roll two dice and see how whether or not the sea treats them well or ill.

Use the chart below to determine what happens to each ship, crew and passengers!

PORT OF CALL

CALAMATY OR BLESSING TABLE

On each third turn each occupied port will roll two dice and see how the fates treat each of your colonies.

ADVENTUREMAP
(PRINT & ENLARGE AS NEEDED)

EUROPEAN EXPLORERS WORKSHEET

(Request actual spreadsheet template from author)

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