**Battleship in Excel**

To teach concepts of slope, or points on a graph, pair students with a computer and have them create and then play a “battleship” game.

To create the battleship game, you will primarily use formatting features. Each

workbook should contain two formatted worksheets – one for the player’s own ships,

and one in which to mark hits on the “enemy’s” ships.

**Rename Sheets**

1) Click the Sheet1 tab at the bottom of your spreadsheet window. Right click to get the

pop-up menu, then choose rename. Type the new name in the tab.

2) You can also double-click the sheet tab and type in the new name. Call the first

sheet Enemy Ships.

3) Click or double click Sheet2 tab and rename Sheet2 My Ships.

4) Return to the “Enemy Ships” tab to begin formatting the first game board.

**Set up Game Board**

1) Adjust column width and row height to create larger, square cells.

a) Put your cursor over the column label A, and drag over to column J. You should

have columns A – J highlighted.

b) With your cursor still in the grey column heading area, position it over the

boundary line between two column headings. The cursor should look like a double headed arrow. Click and drag the cursor to change the column width. As you drag, a yellow “sticky” label appears. Use that as a guide to set the width to 50 pixels (or

eyeball the size). When you release from dragging, all 10 columns should be the

same narrower size.

c) Position your cursor over the row one heading number one. Drag down until 10

rows are highlighted. With your cursor still in the grey row heading area, position it

over the boundary between two of the rows so it looks like a double headed arrow.

Drag the boundary down until the yellow “sticky” indicates 50 pixels (or eyeball the

size).

2) Color the cells of the 10x10 grid and display all cell borders.

a) Highlight the range A1:J10. This should create a square 10 columns wide by 10

rows deep.

b) Using the paint bucket button on your formatting toolbar (far right), choose a light

blue color to fill the highlighted area.

c) After setting a fill color, the gridlines disappear. While the game board area is still

selected, use the borders button next to the paint bucket on the formatting toolbar

and choose the selection for All Borders. 6

3) Format cell alignment so text is centered vertically and horizontally in all game board

cells.

a) With the range A1:J10 still selected, go to the Format menu Cells Alignment

tab. Choose “center” for the horizontal and vertical cell alignment.

4) Copy game board to second worksheet My Ships.

a) With the range A1:J10 selected, choose copy. Click the tab for My Ships at the

bottom of the workbook screen.

b) In the new worksheet, choose paste. This pastes the color, but you need to

repeat step 1 from above to change the column and row sizes.

SAVE THE WORKSHEET.

You may now position ships Use the following

key for number and size of ships.

Number of Ships Ship Length Color

* **1 Aircraft Carrier**
	+ **6 squares Orange**
* **2 Battleships**
	+ **5 squares Yellow**
* **2 Destroyers**
	+ **4 squares Light green**

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* **2 Submarines**
	+ **3 squares Grey**
* **1 Cruiser**
	+ **2 squares Light Red**

**It should look similar to the table at the right when you are finished**

**Color Ships**

1) Select the “squares” or cells where the ship should be located. Use the paint bucket

on the formatting toolbar to change the fill color of those ships. Note that the ships are

entered only in the My Ships worksheet.

SAVE THE WORKSHEET.

**Playing the Game**

1) Two students play together, and use laptops or turn the monitors so they can not see

each other’s screens.

2) Decide who goes first.

3) That player calls out the column and row – i.e. “C5”.

4) The opponent answers hit or miss.

5) On the sheet Enemy Ships (NOT where your ships are!), the player marks an H for

hit, an M for miss, or an HS for hit and sunk (or color the cells of the sunk ship black). If

you get a hit, you get a second guess.

6) Now the opponent gets to call out a column and row. The player looks at the My

Ships sheet and marks an H or an M, depending on if a ship is hit or not.

The first player to sink all of the opponents’ ships is the winner.