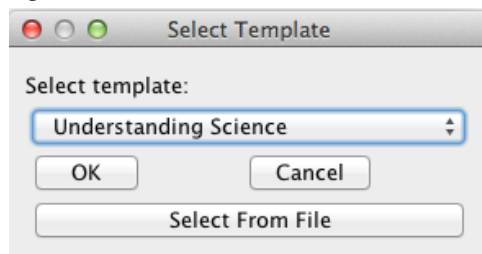


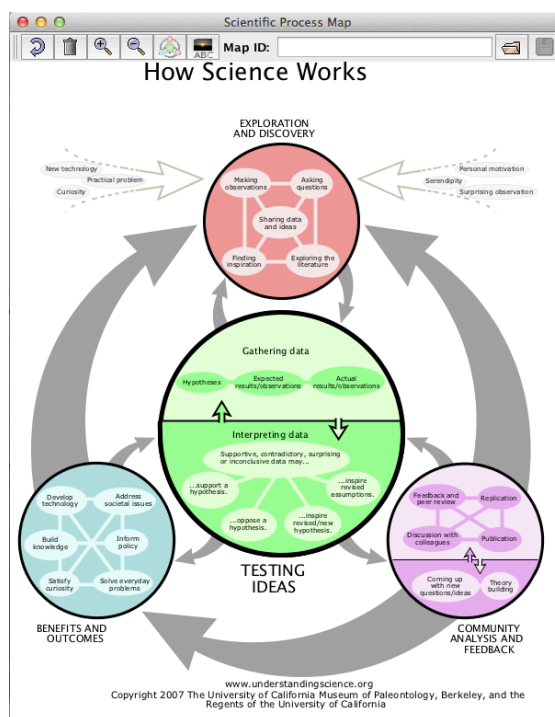
Scientific Process Mapping Instructions

Starting the Program

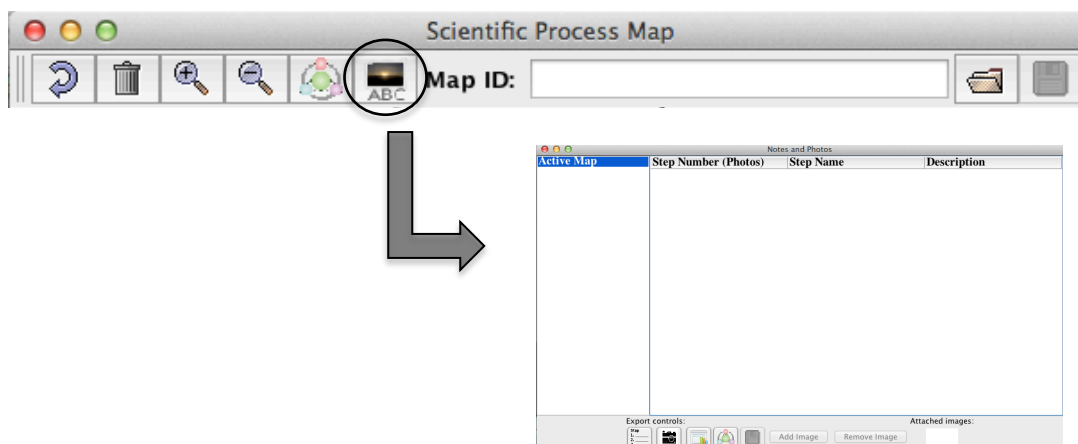
1. Double click on the program icon.
2. On the **Select Template** screen, select **Understanding Science** and click **OK**. (Note: To open your own templates made using the Template Instructions, click Select From File.)



3. The Understanding Science Flowchart will appear in the **Mapping Screen**.

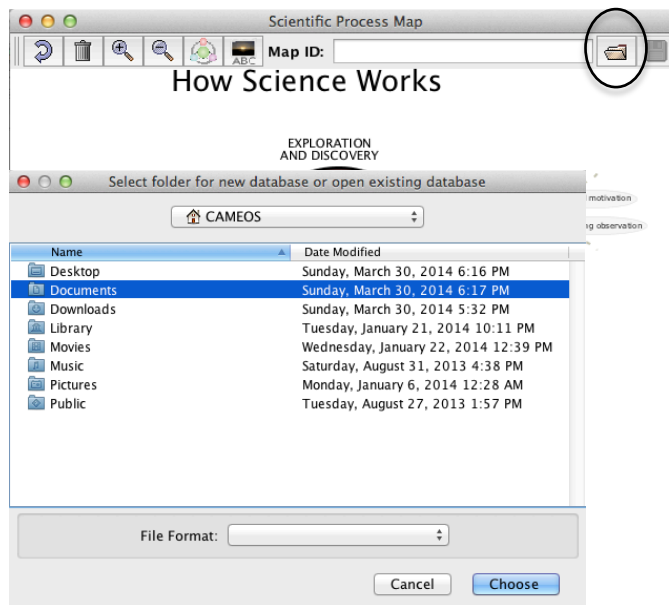


4. Click the **ABC** button to open the **Notes and Photos Screen**. Clicking this button will bring the Notes and Photos Screen to the front or hide the screen.

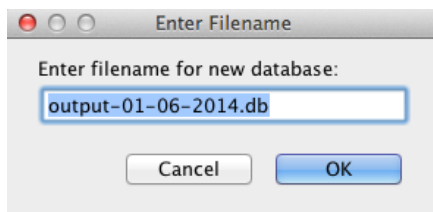


Creating a Database

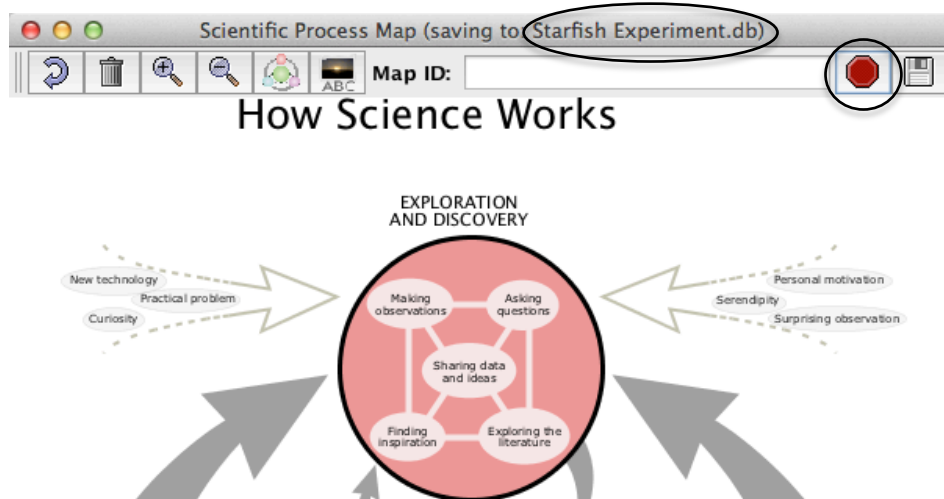
- Click the **Folder** button in the upper right of the Mapping Screen. Select a **folder** (not a file) where you want to save a map database and click **Choose**.



- The program will automatically name your database file with the date it was created, but any name is acceptable if it ends in ".db" (for example: Starfish Experiment.db).

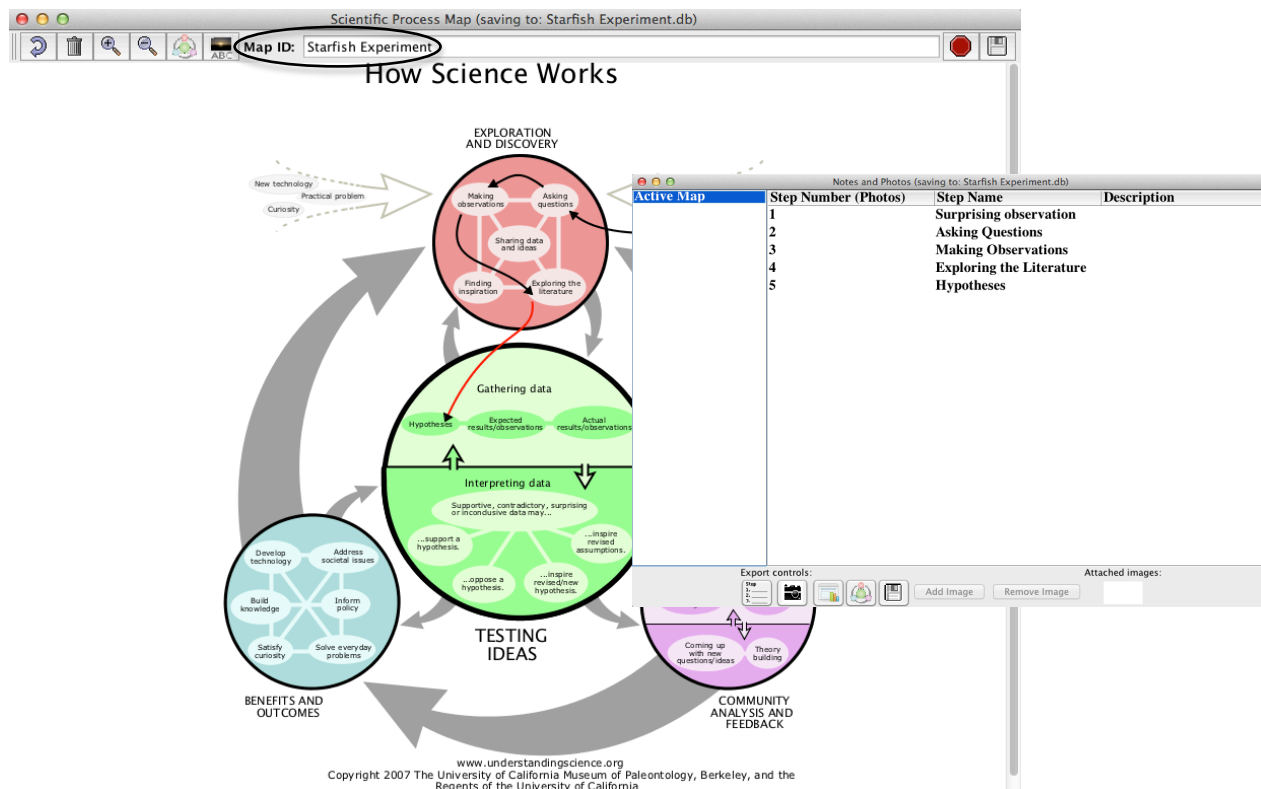


- After editing the database name, click **OK**. The folder icon on the Mapping Screen will become a **Stop Sign**, and the database name will appear at the top of the Mapping Screen. (Note: Clicking the Stop Sign will close your database and allow you to open or create a new one.)

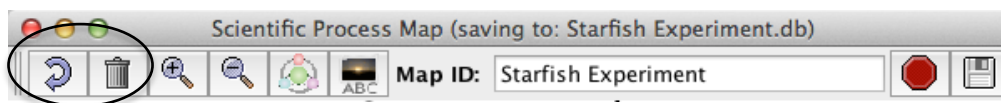


Creating, Modifying, and Saving Maps

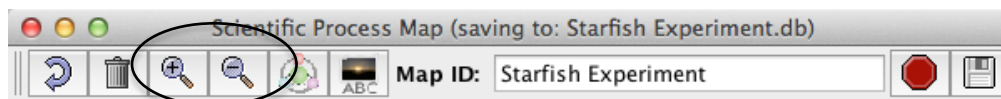
- Enter a **Map ID** at the top of the Mapping Screen. This could be your name, a project title, or date. After you enter an ID, you can start mapping your scientific process on the flowchart. For example, you could click: surprising observations, asking questions, making observations, exploring the literature, and hypothesis (see figure below). Your steps will appear as a list on the Notes and Photos Screen, and **your most recent step will be highlighted on the map with a red arrow**.



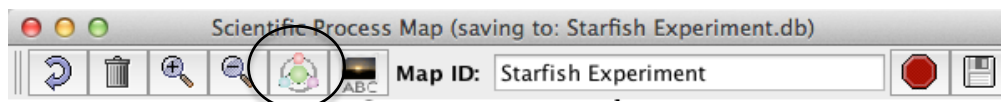
- The **Undo Arrow** button removes the last step entered on the map. The **Trash** button deletes the map.



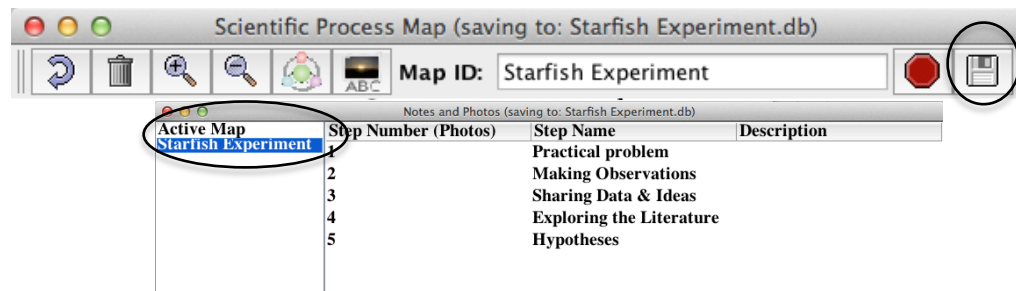
Zoom buttons allow you to zoom in and out on the Mapping Screen.



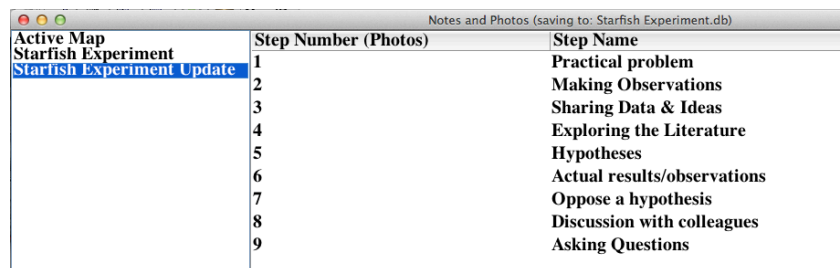
The **Map** button allows you to **change the map template** (see step 2 above).



10. Click the **Disk Icon** to save your map. Once you hit save, the Map ID will appear on the map list in the left column in the Notes and Photos Screen. Save your work so you can reopen and edit your maps.

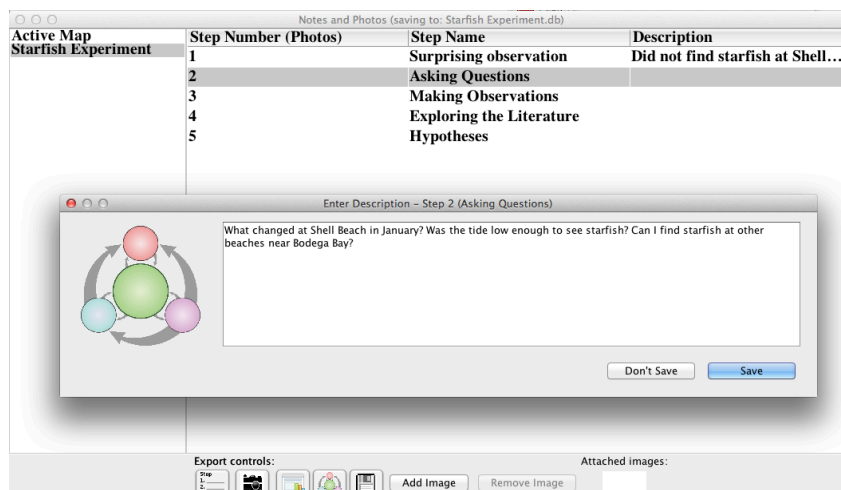


11. To start a new map, click **Active Map** on the upper left of the Notes and Photo Screen. Alternatively, you can erase what is currently displayed on the map by clicking the **Trash** button.
12. To open and edit a saved map, **double click the name of the map** in the left column on the Notes and Photos Screen. **To save an edited map, you need to enter a new ID** (for example, “Starfish Experiment Update”). When you save the map, the new name will appear below the name of the original map.



Creating Journal Notes and Linking Photos

13. Select a map, and then double click a step in the map displayed on the Notes and Photos Screen. A textbox for notes will appear. Click **Save**, and your notes will display under **Description** next to the step name.




14. Two photos can be linked to each step in your map. To link photos, select a step and click **Add Image**. Most image formats are supported (JPG, PNG, etc.). Select the file and click **Open**. A **checkbox** will **appear next to the step number** indicating the image is attached. The name of the uploaded file will appear in the **Attached Images** box in the lower right of the Notes and Photos Screen. **Double click** the file name to view the image in a popup screen. To remove a photo, highlight the name in the **Attached Images** box and click **Remove Image**.

Notes and Photos (saving to: Starfish Experiment.db)

Active Map	Step Number (Photos)	Step Name	Description
Starfish Experiment	1 (✓)	Surprising observation	Did not find starfish at Shell...
	2	Asking Questions	What changed at Shell Beac...
	3	Making Observations	
	4	Exp	
	5	Hyp	

Artifact viewer - ID: Starfish Experiment , File: Shell Beach .jpg



Export controls:

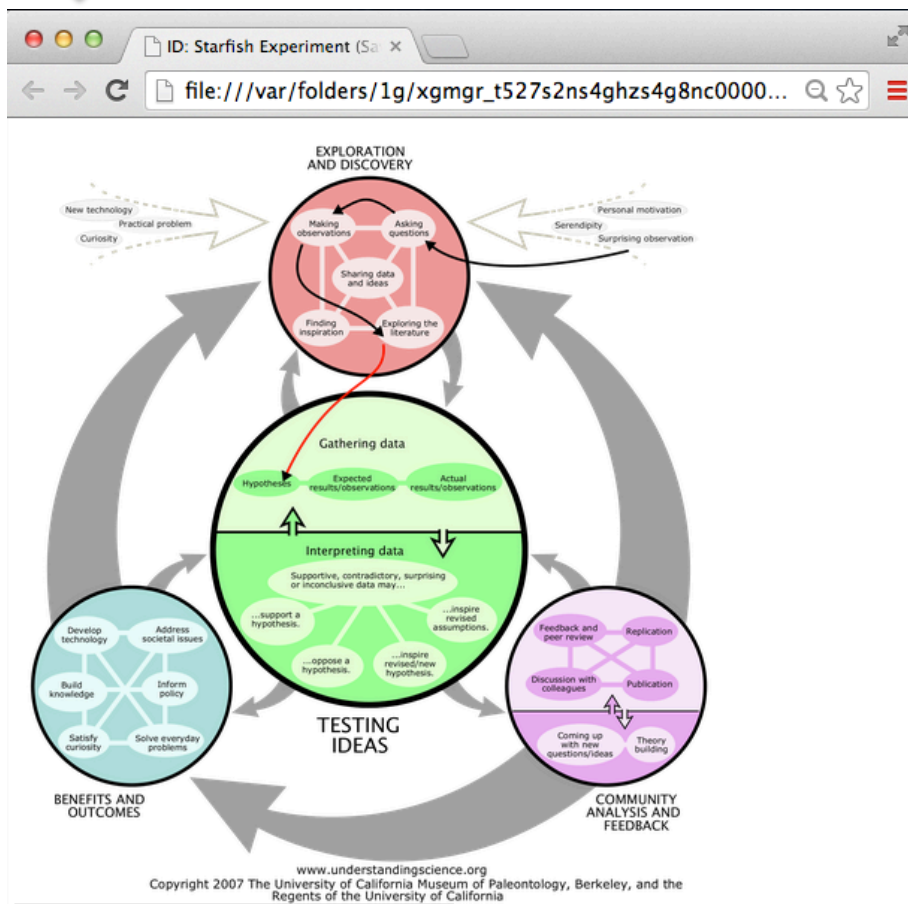
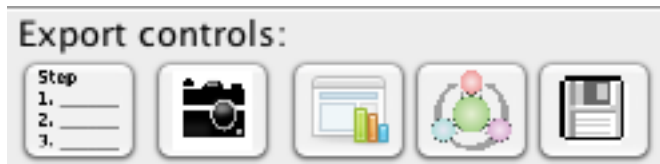
Step
1: ☐
2: ☐
3: ☐
4: ☐
5: ☐

Attached images:
She...

Exporting Maps and Creating Presentations

15. The program export options can be found on the bottom of the Notes and Photos Screen.

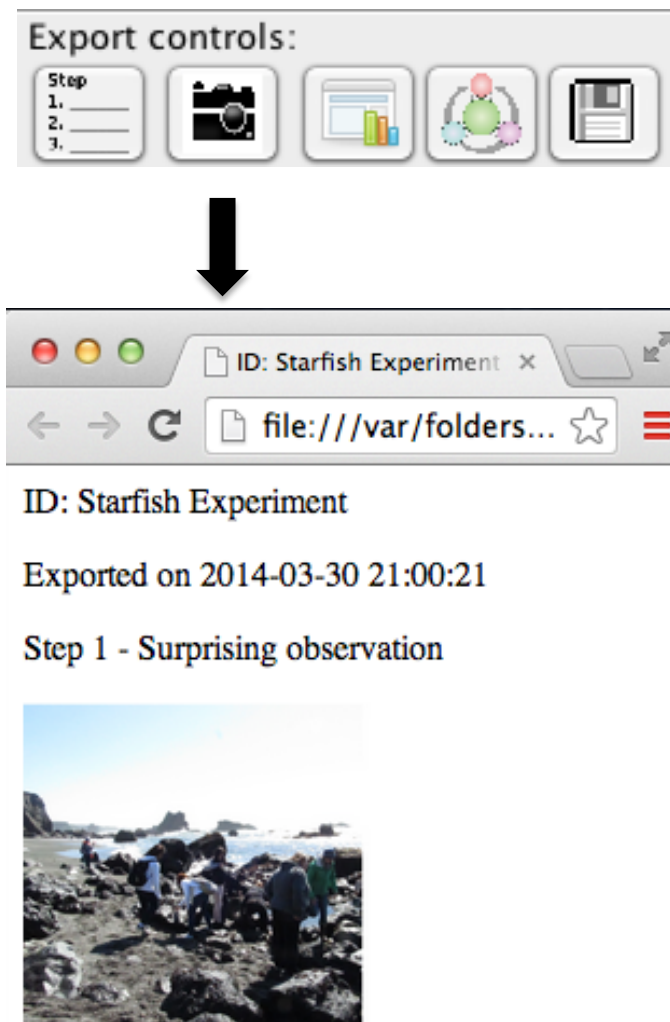
The **Export Steps** option allows you to view maps, steps, and notes in a web browser.



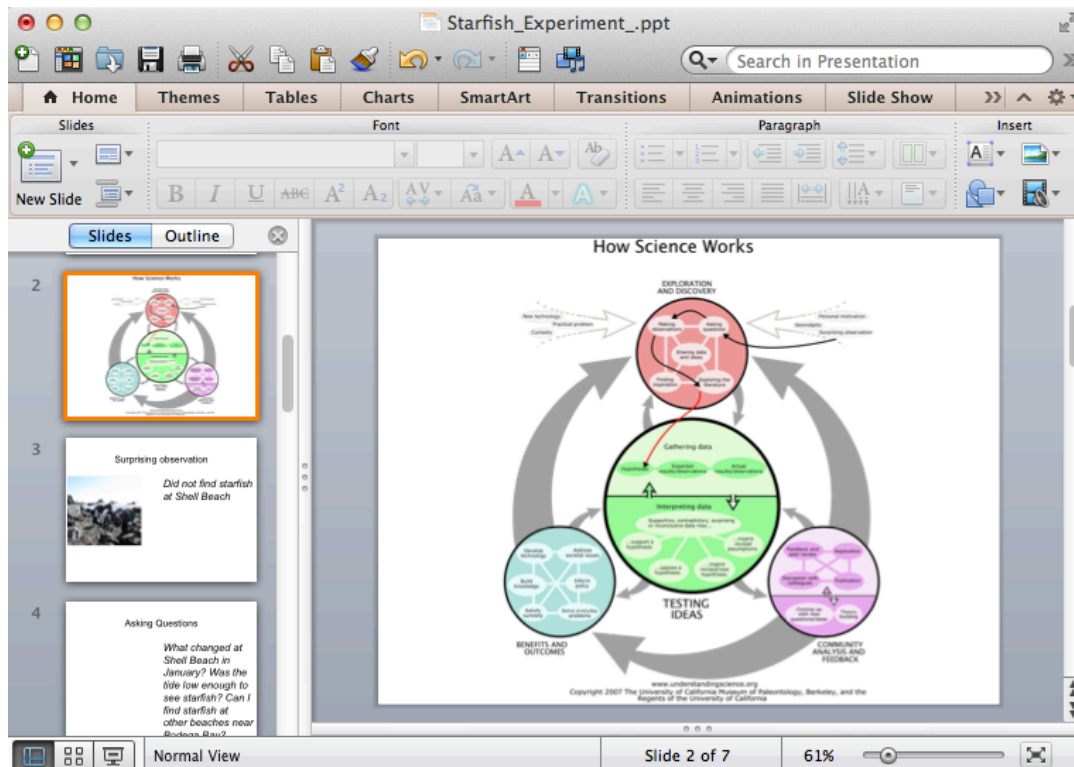
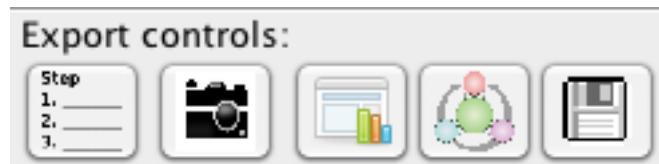
#	Step	Description
1	Surprising observation	Did not find starfish at Shell Beach
2	Asking Questions	What changed at Shell Beach in January? Was the tide low enough to see starfish? Can I find starfish at other beaches near Bodega Bay?
3	Making Observations	
4	Exploring the Literature	
5	Hypotheses	

ID: Starfish Experiment

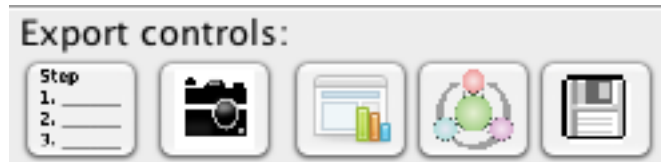
The **Export Photos** option allows you to view thumbnails of the photos in a web browser.



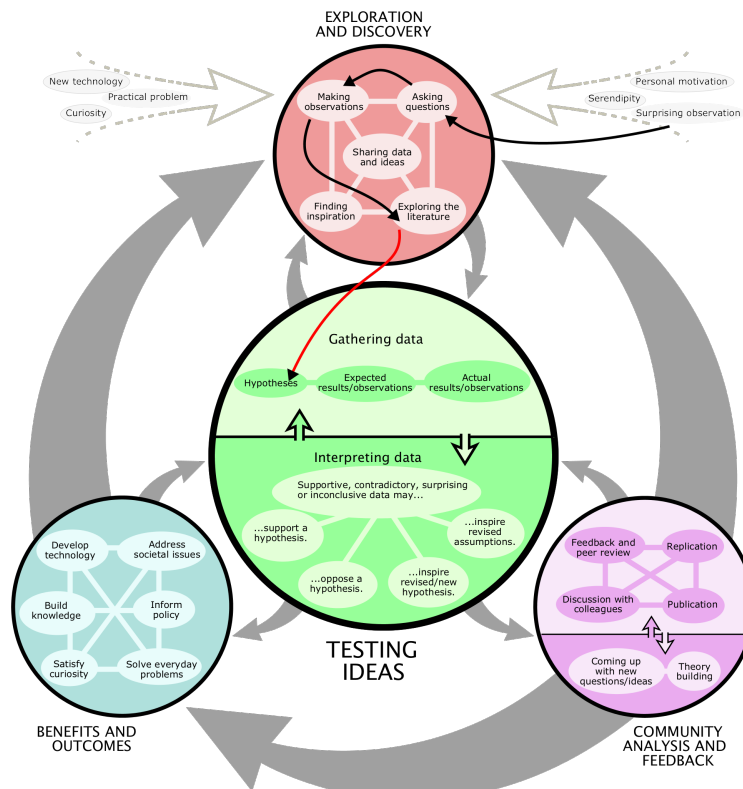
The **Export PowerPoint** option allows you to create an editable PowerPoint file containing the map, step descriptions, and photos. **PowerPoint files automatically save to the desktop.**



The **Export Map** option allows you to create high-resolution Portable Network Graphics (PNG) files of your maps. **Map files automatically save to the desktop.**



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