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| **Activity 2 – The Denaturing of Proteins** |

**Introduction**: Have you ever had to separate the yolk of an egg from the egg white for a recipe? Egg white consists mostly of a protein called albumin. In this experiment, you will test how [**denaturation**](https://peer.tamu.edu/curriculum_modules/Cell_Biology/Glossary/gloslist.html#denature) of a protein (albumin from egg white) affects the protein's solubility (ability to dissolve) in water.

**Instructions:**

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| 1. Carefully break an egg and pour out the white part into a dish, leaving the yellow yolk part behind. Be careful not to break the yolk. Do not get any egg yolk in the dish.  2. Take a small fraction of the egg white and put it in a glass of water. What happens? Does it dissolve?  3. Heat the egg white, which is mostly albumin protein, until it cooks. How does the appearance change?  4. Cut a small piece of the cooked egg white and put it in the same volume of water that you used in step 2 above. Does it dissolve?  **Analysis:**  Why does heating cause a change in appearance?  Why does heated egg white not dissolve?  When you fry an egg, why does the white cook first before the yolk? |