



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Alexandria B. Hanzlik</b>	<b>Project Number</b> <b>J1303</b>
<b>Project Title</b> <b>Does 100% Wool, Rayon, or Polyester Shrink More than 100% Cotton?</b>	
<b>Abstract</b>	
<b>Objectives/Goals</b> To discover if 100% Wool Rayon or Polyester shrinks more than 100% Cotton.	
<b>Methods/Materials</b> Methods: Step 1: Get 100% Wool, Rayon, Polyester, and Cotton. Cut each piece of fabric to 4 pieces measured 6" by 6", and label Wool cloth with the letter A, label Rayon cloth with the letter B, label Polyester cloth with the letter C, and label Cotton cloth with the letter D. Step 2: Put three pieces of each type of cloth into washer and set it on rinse cycle. Step 3: When done rinsing, put cloths into dryer and set it on medium heat. Step 4: Set timer on dryer for ten minutes. Step 5: When timer runs out, take the cloths out the dryer. Step 6: Let the cloth cool on table in single layers for ten minutes then compare cloth to original fabric and record in logbook. Step 7: Repeat this process three more times. Materials: 1. 100% Cotton fabric 2. 100% Wool fabric 3. 100% Polyester fabric 4. 100% Rayon fabric 5. cloth measuring tape	
<b>Results</b> The original purpose of this experiment was to find out if 100% Wool, Rayon, or Polyester would shrink more than 100% Cotton. The results of the experiment show, the Rayon fabric shrank 2 1/2 inches after all three washes and drying. Polyester shrank 5/16 inches, Wool shrank 3/8 inches, and Cotton shrank 1 3/16 inches. Overall the results of the experiment were that, Rayon shrank the most and Wool shrank the least. In this case my hypothesis was considered false, Rayon shrank more than Cotton.	
<b>Conclusions/Discussion</b> Conclusion: My hypothesis was that the 100% Cotton fabric would shrink more than the 100% Wool, Rayon, and Polyester. The results indicate that this hypothesis should be considered false. 100% Rayon shrank 1 5/16 more inches than the four fabrics because its thin texture is sensitive to heat. Also, the Rayon that I have is	
<b>Summary Statement</b> My project is about finding out how much fabric shrinks when you put it in the washer and dryer.	
<b>Help Received</b> My dad helped measure the fabric and my mom went to the store to buy materials.	