

Unit T4 • Designing a Fair Test

Elements of a Fair Test, cont.

Here are some more situations where there is a problem with the way someone is thinking. Which science idea or ideas would help?

Situation	Scientific Thinking	
<p><i>Julio wanted to know which tomato plant grew the fastest. He tested many kinds of seeds, but he also used different types of soil.</i></p>	<p>Would you say that Julio should pay more attention to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> controlling variables? <input type="checkbox"/> multiple trials? <input type="checkbox"/> objective measurement? 	<p>Tell Julio a better process:</p>
<p><i>Susan opened an ice cream stand at the beach. She sold more ice cream on a warm Tuesday than a chilly Saturday, so she decided to hire an extra employee for Tuesdays.</i></p>	<p>Would you say that Susan should pay more attention to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> controlling variables? <input type="checkbox"/> multiple trials? <input type="checkbox"/> objective measurement? 	<p>Tell Susan a better process:</p>
<p><i>Tony watched a motor boat race in Boston Harbor. Since the German boat beat the Japanese and American boats, he decided that boats from Germany were the fastest in the world.</i></p>	<p>Would you say that Tony should pay more attention to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> controlling variables? <input type="checkbox"/> multiple trials? <input type="checkbox"/> objective measurement? 	<p>Tell Tony a better process:</p>
<p><i>Leah determined that tennis balls were bouncier than lacrosse balls. Kay noticed that Leah was dropping the tennis balls on the tennis court but dropping the lacrosse balls on the grass.</i></p>	<p>Would you say that Leah should pay more attention to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> controlling variables? <input type="checkbox"/> multiple trials? <input type="checkbox"/> objective measurement? 	<p>Tell Leah a better process:</p>
<p><i>Jackson decided that the paper towels his family bought were the best brand because they felt spongier and soaked up most of the spills at his house.</i></p>	<p>Would you say that Jackson should pay more attention to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> controlling variables? <input type="checkbox"/> multiple trials? <input type="checkbox"/> objective measurement? 	<p>Tell Jackson a better process:</p>

Can you make up a different situation in which someone is NOT being scientific in the way they are thinking? What would you recommend to help them?