

# Fair Test Assessment

Study Guide

Jamie wanted to see if the shape of a container changes how quickly a cake can bake. She used different shaped containers and made up some cake mixes. In the square pan, Jamie used the chocolate cake mix. In the round pan, she used the vanilla with confetti sprinkles and in the rectangular pan, Jamie used an angel food cake mix. Jamie then set the timer and checked each cake in 10 minute intervals to see if it was done cooking.

Did Jamie conduct a fair test to see if the shape of the pan affected how quickly the cake baked?

What improvements could Jamie make to her test?

Billy likes to go fishing with his father. They have a favorite spot where they catch a lot of bass. Billy and his dad wanted to see if they could catch more bass with a different bait. Billy used the new bait and his dad used their old bait. They both went to their normal spots, used their normal poles and fished for the same amount of time. At the end of the day, Billy's dad caught more fish.

Did Billy conduct a fair test to see if the fishing bait could help them catch more fish?

What improvements could Billy make to his test?

Sally is doing an experiment to see if house plants will grow faster if she makes the room warmer. She takes several plants and puts them in different rooms. Sally uses the same type of plant, the same amount of water and the same containers.

Did Sally conduct a fair test to see if the temperature changes how quickly the plants grow?

What improvements could Sally make to her test?

Tom wants to determine the best temperature for storing batteries.

Describe a possible experiment that Tom could do to test this out. Make sure to identify which variable you are changing (manipulated), which you are testing for (responding) and what you will need to control.