What a Scientist Sees



Dona Herweck Rice

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Tricky Business

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As soon as you finish reading this sentence, close this book for about one minute and try to remember everything you can about the picture on the right.

How did you do? How much did you recall? If you remembered a lot, then congratulations! You've got a knack for noticing details.

So now, take a good look at the picture. Observe it closely. What objects are in the picture? Describe them. What colors and shapes are the objects? How tall are they, and how close are they to one another? What are the people doing? Are people paying attention to one another? How do people seem to be feeling? Are they happy, sad, angry, or surprised? Do you see anything funny?

All right, now here's the most important question of all. Who in the world cares about all these details?

A scientist does, that's who.



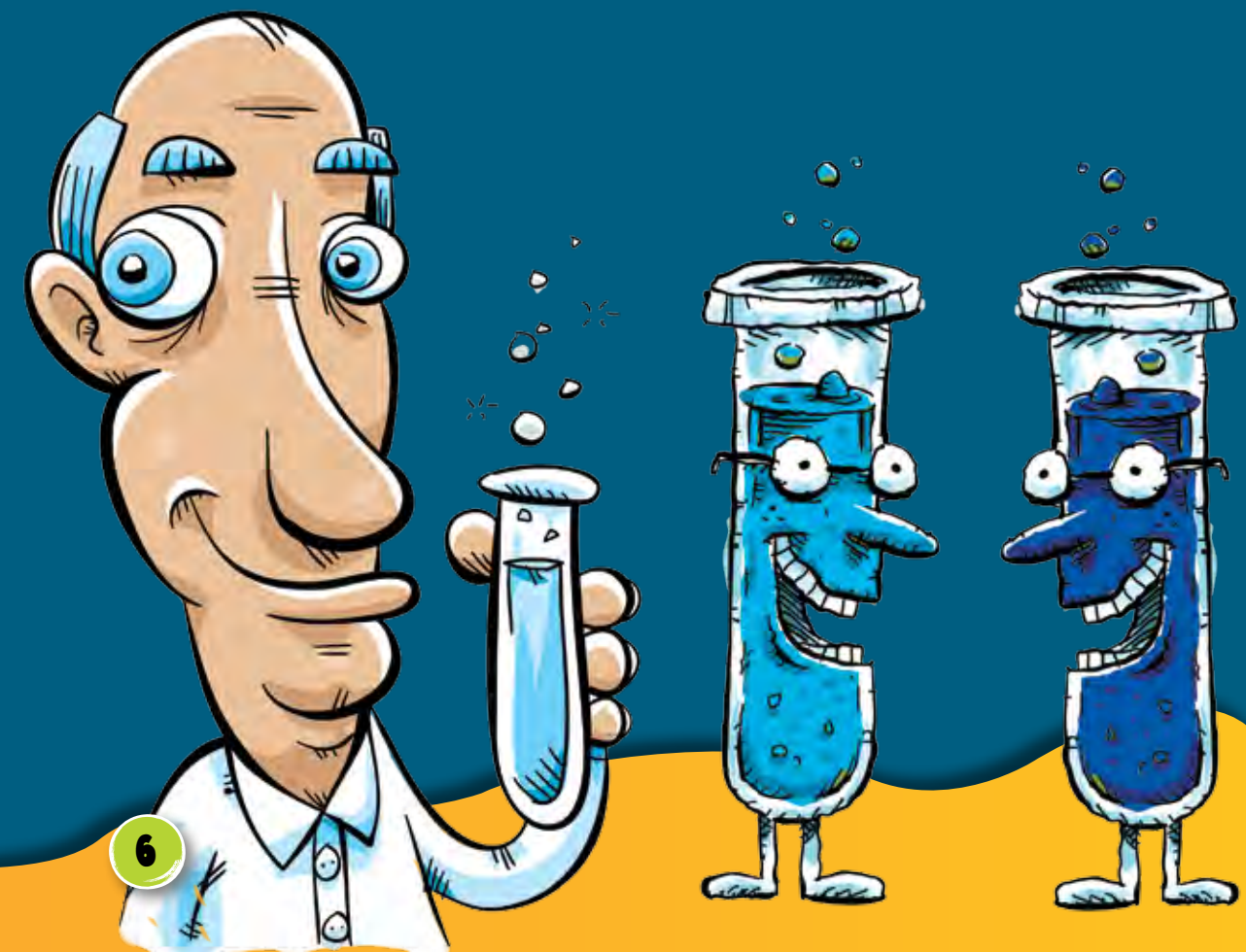


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A scientist notices EVERYTHING! Why? Because a scientist knows that every detail matters.

Let's say a scientist is working with two **chemicals**. When they are mixed together in **equal** parts, a puff of periwinkle blue smoke shoots into the air. This happens every time. But one day, the scientist mixes two equal chemical parts, and this time, the blue is cerulean (suh-ROO-lee-uhn). *That's odd*, thinks the scientist. He double-checks his notes. *Yes, the blue smoke is ALWAYS periwinkle*, he confirms. So, why cerulean this time? Something has to be different. There's a detail, even a small one, that made the difference. A good scientist needs to know why, and our scientist is a good one.



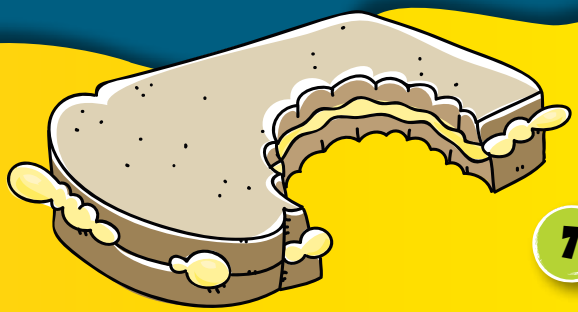
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Try It!

How many shades of blue can you make by mixing paint? Find out by mixing blue paint with different amounts of black, or white, or dabs of yellow or red. Keep a record of the mixtures you create.

Through careful **observation**, the scientist discovers something important. He dropped a piece of his tuna-fish sandwich into the chemicals! Well, no wonder things were different. Next time, there's no eating in the laboratory!



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Think Like a Scientist

How can a magnifying glass help you observe the world? Experiment and find out!

What to Get

- clear, thin plastic container
- craft knife
- plastic wrap
- rubber band
- small items
- 5 centimeters x 15 cm (2 inches x 6 in.) strip of sturdy cardboard
- water

