

The sky has always been a source of wonder and inspiration for us. Looking up and wondering what lies beyond is one of the oldest activities known to man. Have you ever wondered how many stars are up there in the sky? Ready to begin your exploration? Let's get started!

**\*Remember to always ask an adult before doing any science experiment.\***

### **Materials**

toilet paper tube  
paper  
pencil  
dark place to observe the sky  
clear night

### **Procedure**

1. Gather all of your materials.
2. On a clear night, go outside your house, or have someone drive you to a dark location.
3. Look up at the sky through the toilet paper tube and count the stars that you see in the tube.
4. Record the number.
5. Do this for a total of five times looking at different areas of the sky each time.
6. Find the average of number of stars in each area. In order to do this, add up the number of stars you counted each of the five times and divide by five.

### **Explanation**

Scientists conduct similar experiments in order to estimate how many stars are in the universe. I hope that by doing this activity, it helped you understand the vastness of the space above and that there are an extremely large number of stars in the sky. How many are there though? The truthful answer to how many stars are in the sky is that no one really knows, because there are just too many to count. For instance, if you look at the Milky Way galaxy alone, it is made up of an estimated 100 thousand million stars. I was told that if you were to count nonstop at a rate of one star every second it would take over 3,170 years!

If you want to chance to talk to some very knowledgeable astronomers as well as have an opportunity to look into the sky above, please take some time on September 14 to visit the Sunridge Observatory for their annual Star Party. It starts at 4:30 p.m. and will last into the evening hours for some viewing through their magnificent telescopes. Please visit their website at <http://www.mhac.ca/> for updates. Clear skies!

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