

Title: Dark Matter

Introduction: Science is a way of learning that has specific standards and procedures. Your textbook provides a summary of science learning but it does not tell the whole story. Science is alive and growing daily and many people never get to see “behind the scenes” of science. In this activity you will make some predictions about matter, including the mysterious “dark matter”. You will read about how two scientists are sharing their work on dark matter with other scientists. Start by checking in the “Before” columns whether you agree or disagree with the statement. Then read the article and check the “After” column.

Opinionaire

Before		statement	After		
no	yes		no	yes	pp
		1. Scientists know just about everything there is to know about matter in the universe.			
		2. If a scientist found new information about matter in the universe they would first tell the newspapers and TV stations.			
		3. A scientific theory can be changed when an outstanding scientist thinks it should.			
		4. New evidence is automatically added to existing theories.			
		5. If matter could not be sensed with human senses or tools, it couldn't be matter.			
		6. Once a theory has been accepted by scientists, it cannot change.			
		7. The work and findings of scientists from one era are useful to scientists years later.			
		8. Theories are based on experimental data.			
		9. We cannot know about the past because the laws of nature change.			
		10. “Dark” matter exists in the universe and scientists have evidence for it.			
		11. Scientific findings about nature cannot be used to make predictions about human activities.			
		12. Small models of nature can sometimes be used to predict the behavior of larger systems.			
		13. Fields of science such as botany and astronomy are too different from one another to share ideas.			
		14. If ideas about dark matter can be proven with evidence, old theories may be discarded or changed.			

In the last column on the table (pp), put the paragraph number where support for your answer is found. On the back of this paper, describe how new evidence is presented and analyzed by the scientific community.