

# Increasing literacy and understanding science in middle and high school classrooms

**Background:** It is no secret that high literacy rates as an adolescent can contribute to better understanding of school subjects, especially science. The issue lies with keeping students engaged in reading as they enter middle and high school. I teach in a small rural school in NE Montana, with approximately 40 students in grades 7-12. While the majority like engaging in science, getting them excited about reading is another story. My problem question evolved from this observation and led to gaining some great insight on my students, their attitudes towards literacy and science and also how my teaching styles have to evolve to become effective in the area of science literacy.

**Conclusion:** Though I was not able to see improved voluntary reading outside of class, it was very evident that students began to better understand information when they took the time to read and write about it. As I will work with these same students each year, I have a unique advantage to help them grow in science literacy. Students enjoyed picking different science news articles to read and discuss and older students began to connect the dots of the importance of reading and comprehending what they were studying in class. This next year as I begin to implement NGSS standards in to the classroom, we will continue to read and add a daily writing element to help reinforce concepts and understanding.

Quotes from Students on ways to increase their personal reading habits:

“Just have a book on you everyday, so you can read when you have a few free minutes.”

-Morgan J. 7th grade

“Set an alarm each night to read for a certain amount of time”

Sawyer S. 9th grade

Some of the ways data was collected:

Journals

Surveys

Literacy Tests



AR Project Sub- Questions:

How will concentrating on literacy in the science classroom improve my development as a new science teacher?

How is student attitude towards personal reading goals changed due to an increased literacy in science?

How does increasing literacy impact student learning, more than just the textbook and usual worksheets used in class?

How does the type of literature read effect the process of increased literacy and comprehension in science?



## Student Survey Sample Question

How Many Books have you read since the beginning of the school year?

N=36

Rating	None	<2	3-5	>5	Other
<i>How many books read (middle school)</i>					
N=	6	6	2	1	1
<i>How many books read (high school)</i>					
N=	8	7	2	3	
<i>The “other” respondent in this case said 30 books read since the beginning of the school year.</i>					

AR Project by: Cindee Parker

Conducted at: Nashua High School, Nashua, MT

