

ESSP Astronomy Workshop Common Read

The Common Read book for the Astronomy Workshop is “How I Killed Pluto and Why it Had it Coming” by Mike Brown. Below are several questions that reflect the major themes in the book but don’t refer to very specific parts of the reading. Our team wrote the questions to help you to examine how a practicing planetary scientist looks at the Solar System and approaches designing and carrying out astronomical experiments. Moreover, these questions can also serve as a model for use with your students.

Please write a question you had or identify a specific part of the book that resonated with you that you would like to discuss with the other teachers in the workshop. This should be different than what is covered in our questions below.

Why did objects like Eris elude astronomers between the 1930s and early 2000s?

Describe the measurements that Mike Brown and his team made to discover these objects.

In what way did Brown’s team improve upon past searches in order to make their sequence of exciting discoveries?

The author spends a great deal of time discussing why Pluto (and Eris) should not be considered planets. Do you agree with his assessment? Why or why not?

The central idea of the book is the definition of a planet. How would your students define a planet?

Definitions are given in textbooks in their “finished form.” How does the Brown book differ from this approach? How could this approach work in your classroom? What difficulties would it present?

Mike writes a lot about his family life; meeting his wife, having his daughter, and memories of his father. What did you think about these parts of the book? Is there anything relevant from those sections for discussion in a science class?

Teachers often ask astronomers and other scientists for resources related to scientific careers. Is there anything in Brown’s description of his work that might be interesting to students considering science as a career? Could this book be used in any way in a lesson on science careers?

Another part of the story deals with the actions of astronomers who Brown alleges were unethical in announcing their own discovery of large Kuiper Belt objects. Is this story appropriate for inclusion in a science classroom? If so, how might you present it?

Most curricula about the Solar System only include the planets. What advantages do you see to including all of the rest of the objects in your own curriculum?

Chapter one of most textbooks is about the scientific method. How does the science in the book affirm and differ from this textbook approach? Where in your science curriculum do you address how science is done?