

Numeracy: Lesson Plan

Topic	
<p>Numeracy is the use of numbers or calculations in a social manner. These practices are embedded in daily life, and are able to be mathematized. Numeracy comes in many forms, including the interpretation of numerical information, which has become more and more prevalent in Western society today.</p>	
Possible subjects/classes	Time needed
Math, civics, economics, social studies	45 minutes
Video link:	
https://academy4sc.org/video/numeracy-its-all-in-the-numbers/	
Objective: <i>What will students know/be able to do at the end of class?</i>	
<p>Students will be able to...</p> <ul style="list-style-type: none"> ● Explain the difference between math and numeracy. ● Identify at least two ways in which numeracy is used in daily life. ● Point out at least one example that numeracy is socially patterned and one example of how numeracy practices can change depending on place, time, and culture. 	
Key Concepts & Vocabulary	
<p>Mathematics, accessibility, statistics, industrialized, reliability</p>	
Materials Needed	
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Before you watch	
<p>Quick write: Have students complete a quick write of how they use math or numbers in their daily lives. Students will write for 2-5 minutes, then have a quick class discussion where students can share.</p>	
While you watch	

1. What are basic numeracy skills?
2. What is numeracy? When is it used?
3. How is math different from numeracy?

After you watch/discussion questions

1. How does the presentation of information numerically make information more or less understandable and accessible?
2. What are the pros and cons of standard math instruction?
3. Explain why someone with an A + in Calculus may not be numerate.

Activity Ideas

1. Have students watch The short film, [Awana](#). While students watch, have them note the various forms of numeracy they see the Patacancha people engaging in. This would include the weighing of the wool, dyeing the wool, setting up the loom, and weaving. Have students discuss these actions in depth and why they are considered numerical activities.
2. Have students watch the short film, [Counter Mapping](#). When students are done, have them reflect on the way that Jim Enote transforms maps to make them more comprehensible and "evocative". Students should specifically reflect on the phrase "I'm not a bird.... That's not how I look at things" and Enote's rejection of North and South as well as scale within mapping.
3. Split students up into groups and have them make a list of places or activities where it is necessary to interpret numerical information, calculations, or graphs. Have students target specific events that lead to being an informed and established person in society (voting, applying for a loan to purchase a house...). Then have students note what kind of background in math or specific numeracy skills a person may need to be successful in these places or activities. Then have students role play these situations in their groups, or have them present a skit to the class of their role play.

Sources/places to learn more

1. Barwell, R. (2004). What Is Numeracy? *For the Learning of Mathematics*, 24(1), 20-22. Retrieved June 22, 2020, from www.jstor.org/stable/40248441
2. Epstein, Mark J. Yuthas, Kristi. (2012). *Redefining Education in the Developing World*. Stanford Social Innovation Review. Retrieved from

https://ssir.org/articles/entry/redefining_education_in_the_developing_world#

3. Lipkus, I., & Peters, E. (2009). Understanding the Role of Numeracy in Health: Proposed Theoretical Framework and Practical Insights. *Health Education & Behavior*, 36(6), 1065-1081. Retrieved July 20, 2020, from www.jstor.org/stable/45056147
4. Steen, L. A. (2001). Mathematics and numeracy: Two literacies, one language. *The mathematics educator*, 6(1), 10-16.