

Unit 1

Introduction to Science in the News

LEARNING GOALS – What should students learn?

Unit 1 gives students an overview of the course and introduces the ideas of critically evaluating scientific evidence, the differences between correlation and causation, and alternative explanations for scientific claims.

LEARNING PLAN — What will students do to learn?

WARM-UP (10 minutes)

During the warmup, students will read an article that is flawed (e.g., draws an unwarranted causal conclusion from correlational data). We have provided an article on the Unit's page about how a study showing that eating fish is correlated with sleep quality. You can also use your own examples of articles that draw causation from correlation if you wish. Different students can read different articles, or everyone can read the same article. Students can work individually or in groups. Ask students if they have any questions about the article(s) that they read and/or if they noticed anything suspicious about them.

INTRODUCTION OF NEW MATERIAL (15 minutes)

We have provided slides to introduce the material for Unit 1. Students can read through these slides on their own with laptops or the slides can be presented to the class all at once.

GUIDED PRACTICE (15 minutes)

During guided practice, have students reflect on article(s) that they read during the warm-up. Given the material presented in the slides, ask them to think more about alternative explanations for the findings presented in the article. Do they think the conclusion is warranted given the evidence?

CONCLUDING ACTIVITY/CLOSING (5 minutes)

To conclude Unit 1 learning, choose one or more of the following activities for students to do:

- (1) Brainstorm examples of factors that are common alternative explanations (for example: socioeconomic status)
- (2) Have students rewrite the headline of the article they read to be accurate
- (3) Brainstorm common correlations