

STEM CAREERS WITH DR NICK FLYNN

TALKING POINTS

KNOWLEDGE

1. How does Nick's project help students?
2. What are mentors and why are they useful?

COMPREHENSION

3. Why might a low-income lead to a higher chance of students dropping out of their course?
4. How are leadership skills useful for a scientific career?

APPLICATION

5. How would you test whether the course redesigns made the courses more engaging for students?
6. What roles do you think the different sorts of mentors play? Why do you think it is advantageous to have both peer mentors and faculty mentors?

ANALYSIS

7. Why do you think Nick's team draw on the work of national organisations when redesigning the courses, rather than doing their own research?

SYNTHESIS

8. Think about the science lessons in your school. Would you consider redesigning any of the curriculum? How would you go about deciding what changes to make?

EVALUATION

9. Nick wants to see whether students taking arts and humanities courses could benefit from leadership and career skills workshops. Do you think these workshops would be useful outside of STEM? Do you think they would need any modification to cater to a different audience?

CAREER SOFT SKILLS WORKSHOP AND LEADERSHIP WORKSHOP

This link takes you to the sign-up form that schools and other institutions can use to get involved in Nick's workshops. You can also contact Nick directly at the email address on the page:

https://wtamuwv.az1.qualtrics.com/jfe/form/SV_509NCFwf5jXA886

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

Think about your school or college's science curriculum and its strengths and weaknesses. Imagine you have access to a pot of funding and are in charge of designing a programme that makes the science subjects in your school more accessible to all students and encourages them to consider careers in STEM. Write out a plan for your programme and how you would implement it. Consider the following:

- What background research would you need to do on your school?
- What background research would you need to do on other STEM programmes?
- Where does your school have strengths on the topic?
- Where could your school improve on the topic?
- How would you allocate funding fairly?
- Could your programme benefit other students as well?
- How would you measure whether your efforts have been successful or not?

When you have completed your plan, present to your class and see if they have any positive feedback or constructive criticism.

MORE RESOURCES

- This video from Newsy explores some of the issues low-income students face:
https://www.youtube.com/watch?v=_U1EGz091r0
- This article in the *Harvard Business Review* explores what makes a great mentor:
<https://hbr.org/2019/08/great-mentors-focus-on-the-whole-person-not-just-their-career>
- College Scholarships provides detailed lists for various funds and grants, including for low-income students:
<http://www.collegescholarships.org/scholarships/low-income.htm>