

Leadership Curriculum

Lesson 3

Interview with a STEM Leader

Lesson Overview:

Students will continue the Leadership Curriculum by completing the following steps: 1)
identifying STEM leaders from the local community
2) interviewing a local STEM leader

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Leadership

Lesson 3 – STEM Leader Interview

Lesson Overview:

In this lesson students will explore STEM leadership skills and career paths and connect with STEM role models by interviewing a STEM leader from their own community.

Time Frame:

2–4 hours, including time for students to complete independent work/interviews.

Core Concepts:

- Connecting with role models is a good way to explore leadership skills and career paths.
- Conducting interviews is a good way to develop communication and research skills.

Learning Objectives:

In this lesson students will:

- Continue their exploration of STEM leadership skills.
- Investigate various paths to success in a STEM field.
- Develop networking and interviewing skills.
- Connect with STEM role models and apply their advice and experiences to students' own goals.

Materials Needed:

- Names and contact information for local STEM leaders
- A notepad and/or audio recorder for capturing interview responses

Step 1: Introduce the Lesson

Explain to students that in this lesson, they will identify and interview local STEM leaders and share their interviews with the class.

Step 2: Activate Background Knowledge

Ask: *For what reasons do people conduct interviews?* Invite volunteers to respond, listing their ideas on the board. Return to list later, when students begin to develop their interview goals.

Step 3: Identify Community STEM Leader

Guide students to identify and list 3-5 local STEM leaders whom they would like to interview. Explain that each student will interview just one person, but should list some back-up leaders in case their first choice is not available. Tell students that their interviewees should not be relatives, close family friends, or favorite teachers and mentors. One purpose of the interviews is to learn more about people whom students do not know well.

Help students to brainstorm possible interview subjects. List their ideas on the board and share the following additional ideas if needed:

Possible interview subjects

- STEM teachers or activity directors at your school or a local camp or enrichment program
- STEM professors or instructors at a local college, university, or post-secondary school
- Leaders or managers from a STEM-related business or other organization in your community

As necessary, point out that students might also ask their parents and other teachers for ideas, and guide students to locate contact information for their subjects.

Step 4: Set Interview Goals

Explain that before students write questions and conduct an interview, they need to determine the goals of the interview. Setting goals will help students keep their interviews focused and ensure that students elicit the information they need from their subjects.

Brainstorm

Guide the class in brainstorming possible goals for their interviews. List their ideas on the board, adding the following goals as needed (if no one suggests them):

- Understand what leadership means to your interview subject.
- Understand how your leader developed his/her leadership skills.

- Explore ways to develop and emulate some of those skills.
- Become familiar with your leader's career path.
- Determine what you and your leader have in common (in terms of interests, skills, experiences, academic and career goals, etc.).
- Identify possible ways (if any) that you can partner and collaborate with your leader as a mentee, assistant, employee, or team member.

Think-Write-Pair Share

Invite partners to write at least three interview goals, then share and discuss their goals with each other, revising as necessary per their discussions.

Step 5: Request an Interview with a STEM leader

Ask each student to draft an email or phone message requesting an interview with the subject of her/his choice. Post the following checklist for students to refer to as they work:

- Introduce yourself.
- Explain the purpose of your email or call.
- Outline your interview goals.
- Offer the options of interviewing the leader in person, on the phone, and by email.
- Provide a timeline in which you would like the leader to respond.
- Thank the leader for his or her time and consideration.

Circulate as students work, reviewing their messages and providing feedback as needed. Or, ask partners to meet and review each other's messages against the checklist, noting where information needs to be added, deleted or revised. Meet briefly with any student who needs further guidance and feedback.

Step 6: Draft Interview Questions

Invite students to work independently, or with partners or small groups to brainstorm a list of 10-15 interview questions (per student). Guide students to refer to their lists of interview goals as they brainstorm, being sure to generate relevant questions that address the goals. Remind students, also, to include basic questions such as name, title, and academic degree.

If students need help thinking of good questions, share the following resource to use during brainstorming:

[Interview Questions to Guide Conversation with a STEM Professional](#)

When students have finished drafting their questions, meet briefly with each student to review the questions and provide feedback.

Step 7: Practice Interview Questions

When students have finalized their questions, it's time to practice! Before conducting their interviews, students should practice reading their questions aloud until they can read them confidently and fluently, in a natural voice. Invite partners to practice reading their questions aloud to each other. Encourage students to provide constructive feedback on their partners' style and questions. As necessary, students should revise their questions to make them clearer and/or easier to say aloud.

Quick write: If time permits, invite students to respond in writing to the following question: *Which question are you most excited to ask a STEM leader? Why?*

Ask students to share and discuss their responses with a partner or invite a few volunteers to share their responses with the class.

Step 8: Conduct Your Interview

Encourage students to conduct their interviews in person if possible. If their subjects prefer, students can conduct their interviews by phone or email. Many leaders may choose email so that they can respond to the questions at their own pace and convenience.

Before students conduct their interviews, share the following tips, along with any suggestions of your own.

Tips for Conducting a Successful Interview

- Be on time for phone and face-to-face interviews; make sure to dress appropriately for face-to-face interviews.
- Start by building rapport with your subjects. Learn about their personal backgrounds and the businesses or organizations where they work before you begin asking your official interview questions. If a mutual acquaintance connected you to your leader, be sure to mention him or her.
- Use your interview questions as a guide, but allow the interview to flow naturally. Ask additional questions as they arise (but try to stay focused on your interview goals) and don't worry about skipping questions that no longer seem important.
- Take notes on your subjects' responses!
- If your subjects are comfortable with the idea, take a photo or ask them to send a photo you can share with the class.
- If possible, conclude the interview with a follow-up task in order to continue developing the relationship. Also, be sure to ask whether your subject knows of other community leaders and possible mentors you should contact and get to know.
- Remember to say thank you when the interview is finished! (It is a also great idea to follow up by sending a handwritten thank-you note briefly expressing how much you appreciated your subject's time and enjoyed learning more about her or him.)

Step 9: Share Your Interview

As students complete their interviews, encourage them to share key results with the class. Post these guidelines and suggest that students follow them when sharing their interviews:

- Share a few favorite questions and responses, or write a brief summary of the most important things you learned during the interview, and post your summary in the classroom.
- If possible, share or post a photo of your leader, too. Give the photo a caption that tells something important about your leader; for example, "I love STEM because _____"; "I am a STEM leader because _____"; "I want students in STEM to know that _____"
- Listen to or read your classmates' results and offer comments.

ADDITIONAL RESOURCES

For additional ideas for their interviews, encourage students to read, watch, and/or listen to these interviews and video profiles featuring STEM leaders:

- [Segenet Kelemu](#) (agricultural scientist, International Centre of Insect Physiology & Ecology)
- [Julissa Ramirez Lebron](#) (product manager, Intel)
- [Neil deGrasse Tyson](#) (astrophysicist, Director of the Hayden Planetarium)
- [Sheryl Sandberg](#) (COO, Facebook)
- [Jake Fleming](#) (video game developer)
- [Sergey Brin](#) (founder of Google)
- [Teresa VanHooser](#) (engineer, NASA)
- [Francesca Albertini](#) (biomedical scientist, Ashford and St. Peters Hospitals NHS Trust)
- [Michelle Simmons](#) (physicist, University of New South Wales)
- [Scott Kelly and Mikhail Kornienko](#) (Space Station astronauts)