

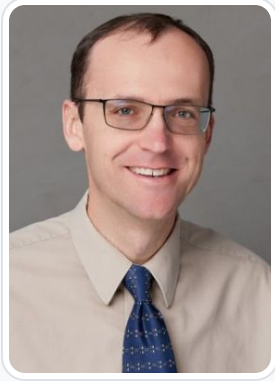
Double-O STEM (Learner Guide)

Community-Based STEM Projects for Informal Learning

Craig Shepherd, Linda Payne, Jaclyn Gish-Lieberman, Laura Armstrong, & Andrew A. Tawfik

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Bike Lane Barriers

Greetings, *Double-O-STEM Club* agents! You have been selected for an important mission. Ellie needs your help with a problem in her community.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

1. What are Ellie and her family interested in learning?
2. What does Ellie learn from the trainer about the problem?
3. Who will benefit from the solutions?



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After you watch the video, click the activity links below to start this mission.

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Learning Activities

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Vertical Maze

Greetings, *Double-O-STEM Club Agents*! We need you for this important mission. Ameer and Leah need your help with a problem at the community center.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

1. What are the community center directors looking for?
2. What idea does Ameer like the most?
3. What details does Leah consider about the new idea?



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Zoo Animal Enclosures

Hello, agents! *Double-O STEM* here with an important mission. Dylan needs your help with a problem at the local zoo.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

1. Why were the giraffes relocated?
2. What is happening to the giraffes' old enclosure?
3. What are the details of your mission?



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Wheelchair Accessible Swing

Greetings, *Double-O-STEM Club* Agents! You have been selected for an important mission. Serena needs your help with a problem in her community.

Think about these questions as you watch the video. Write answers in your *Double-O-STEM Club* notebook.

- What is Serena interested in learning?
- What does Serena learn from the parents on the playground?
- Who will benefit from the solutions?



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Reconsidering Food Packaging

Greetings, *Double-O-STEM Club* Agents! You have been selected for an important mission. Dahlia needs your help with a problem at her community garden. Think about these questions as you watch the video. Write your answers in your notebook.

1. What grows in Dahlia's Community Garden?
2. Why is Dahlia upset?
3. What does Dahlia learn from Reggie about the problem?



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Playground Calm Space

Greetings, *Double-O-STEM Club* Agents! You have been selected for an important mission. Serena needs your help with a problem in her community.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

- What is Serena interested in learning?
- What does Serena learn from the parents on the playground?
- Who will benefit from the solutions?



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Community Garden Watering Solutions

Hello, agents! We need your special STEM skills for this important mission. Manny needs your help with a problem in his neighborhood.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

1. What can't Manny and his friends decide on?
2. What news does Manny's dad have?
3. What does Manny's dad want him to do?



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Community Garden Pest Management Solutions

Hello, *Double-O STEM Club* agents! We need your special STEM skills for this important mission. Manny needs your help with a problem in his neighborhood.

Think about these questions as you watch the video. Write answers in your *Double-O STEM Club* notebook.

1. What can't Manny and his friends decide on?
2. What news does Manny's dad have?
3. What does Manny's dad want him to do?



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