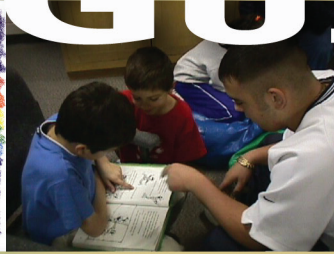
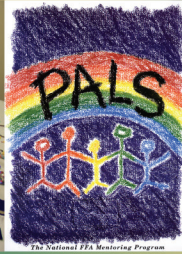


GROW YOUR PALS PROGRAM GUIDE



Sponsored by



THE NATIONAL FFA MENTORING PROGRAM

ACTIVITY

1.5

Secret Code

Unit:
TEAMWORK

PRECEPTS

- O. Flexibility and Adaptability
- O4. Experiments and takes risks

NATIONAL STANDARDS

- CS.01.01.05.a. Assess the physical, financial and professional risks associated with a particular task.

STUDENT LEARNING OBJECTIVES

As a result of this lesson, the student will ...

- Describe personal traits about themselves.
- Assess the benefits and risks in a given situation and make a sound decision.





TIME

Instruction time for this lesson: **30 minutes.**



NUMBER OF STUDENTS

One to three students per adults or peer mentor.



TOOLS, EQUIPMENT AND SUPPLIES

- ✓ Lemon juice, milk or vinegar – one cup
- ✓ A clean ink pen, not a ball point pen (an art supply store will have these)
- ✓ White paper – one to two sheets, sheet suitable to stamp on
- ✓ Candle in a candleholder
- ✓ Fire extinguisher
- ✓ Lighter or matches



DESCRIPTION

Together we will create and solve a secret code. Sharing personal information can be hard, but when we put it in code, it becomes fun! We will learn about each other and taking risks while we work to solve the secret code.

DIRECTIONS

*1. **Note:** Today's activity includes using an open flame on a candle. Make sure the area is well suited for this activity and the proper precautions are taken.*

Set the context of today's activity by sparking a discussion about detectives and how they decipher codes.



A detective is a person who solves mysteries. They spend their day looking for clues and solving problems. What experiences do you have that are like a detective's job?

2. Gather supplies needed for today's activity.



First, let's gather our detective supplies; we will need vinegar, a clean ink pen, white paper, a candle in a candle holder and a fire extinguisher nearby. Ready, set, go!

3. Spark a discussion about how people are like a mystery, the only way to find out more about them is to collect clues.



Our first mission is to learn more about each other. People are like a mystery; you have to collect clues to learn about them. Think quietly to yourself and come up with three or more words that describe you...but don't tell me, it is a mystery!

4. Individually, write the five words that describe you on the white paper using the pen dipped in vinegar. When the vinegar dries, the message will disappear. Be prepared: Depending on the age of your PALS, they may need some help writing their secret message.



Next, we will each need a piece of paper. Using the pen dipped in vinegar, write the words that describe you. When the vinegar dries it will disappear and become a secret code! Let's mix them up so we don't know which one belongs to us.

5. Brainstorm with your PALS how you could crack the secret code on the paper.



Now we have a big job as detectives. We need to figure out how to crack the codes. How could we reveal the information on the paper?

Have you ever uncovered a secret code before? If so, what methods did you use?

Look around us, is there anything here that might be worth trying?

6. Introduce the idea of using the candle to reveal the code. Discuss with your PALS what benefits and risks might exist if you used this plan.



If we use the candle and heat the vinegar, it might show the codes on the paper. There are some dangers with that plan. What are the benefits of revealing the code? What risks are there to using the candle?

7. *Discuss with your PALS the risks and benefits of using the candle. Resolve the discussion by determining if you can use the candle safely, and if the proper equipment is available in case it does not work well that we could try to reveal the codes. Remember to ensure that you are working on a location safe for an open flame. The fire extinguisher should be kept close in case of an accident.*



We know the risks of using the candle and we know the rewards that would exist if we solved the code. It's time to make a decision. Should we use the candle? Do we have the equipment available to make it safe?

8. *Light the candle and carefully move the paper back and forth an inch above the flame (watch carefully to see that the paper does not catch on fire.) Make sure the fire extinguisher is nearby to be safe.*



Are you ready to crack the code? Let's make sure we have all of the supplies we need. Let's make sure that the candle and candleholder, our papers and the fire extinguisher are nearby. Watch the paper carefully as I light the candle and hold it above it. Read aloud any letters or words you see!

Why do you think this works?

The acids in the lemon juice burn through the paper when heat is applied. If you heat it too long, your message will burn away!

9. *See if your PALS can determine who wrote that paper. Create a discussion about the information on the paper and then repeat for the second code.*



Our first code is done. Who do you think wrote this one? Why?

10. *Celebrate your success as detectives today and then spark a discussion using the connection questions on the next page.*



Way to go! We solved all the mysteries of the day!

CONNECTION QUESTIONS

Discuss with your PALS the following questions:

1. You are full of mysteries. What information did you share in your secret code? Why did you select those facts to share with me?
2. As we learn more about each other, we will uncover more mysteries about each other. What new information did you learn about me today?
3. We took a big risk using the candle to reveal the codes. What were the risks and benefits associated with that decision? Did we make the right decision?

WRAP UP



People are full of mysteries! In order to learn more about others and be successful in the future, we have to take risks. To prepare, always think through the risks and benefits associated with a problem before you make a decision.