

# Cybersecurity CyberSnack: Career Opening Questions

Time: 15-20 min

What You'll Need: **Riddle Handout**



## NICE FOCUS: Cybersecurity Career Awareness

**Learning Objectives:** I can explain the connection between cybersecurity careers and the cybersecurity techniques, strategies, and the skills needed for these careers such as: logical thinking, need for people who think “out of the box,” problem solving, and recognizing patterns.

**Essential Question:** What do you think are the essential skills needed in a cybersecurity career?

**Key Words:** cybersecurity, logical thinking, thinking outside the box, problem solving, pattern recognizing

### Activity Steps

Teacher Action	Student Action
<p>1. <u>Start a discussion</u> around career opportunities in cybersecurity by asking one or more of the following questions (selection of questions dependent on student level). Have students share responses in the teacher 's preferred method.</p> <ol style="list-style-type: none"> <li>How many of you use a cell phone?</li> <li>How many of you have digital cable or satellite television?</li> <li>How many of you (or your siblings) have a Facebook account? Use Twitter? Instagram? YouTube? TikTok?</li> <li>How many have parents that use ATM machines, credit cards, or debit cards?</li> </ol> <p>2. <u>Connect discussion to cybersecurity</u></p> <ol style="list-style-type: none"> <li>What is cybersecurity?</li> <li>What does cybersecurity mean to you?</li> <li>Who can tell me what cybersecurity is?</li> <li>Who can tell me what type of jobs you can do in the field of cybersecurity?</li> <li>When you think about cybersecurity, what do you think of?</li> <li>Who can give me some examples of careers or jobs in cybersecurity?</li> </ol> <p>3. <u>Explain context:</u> Cybersecurity is the practice of deploying people, policies, processes and technologies by designing, developing, implementing, and maintaining defensive and offensive strategies to protect organizations, their critical systems and sensitive information from digital attacks. Talk about the connection between careers in cybersecurity and the</p>	<p>Think of possible answers and ask for clarification as needed. Students then share responses in teacher chosen method</p>



skills needed such as: logical thinking, need for people who think “out of the box,” problem solving, recognizing patterns

Reflect: Have students reflect on their responses and change or modify their answers as needed.

4. Ask: What do you think is the connection between solving riddles and a cybersecurity career?

**ANSWER:** The skills it takes to solve a riddle are very similar to the skills needed in a cybersecurity career. It is important to have diverse ways of thinking about how to solve problems.

5. Post Riddles: can be solved individually or as a group. Answers can be shared in teacher method of choice

Reflect: Ask students below question and have them share in teacher preferred method:

# Cybersecurity CyberSnack: Riddle Handout

- **Riddle 1:**

Luis Garavito killed Density x Volume. Who is Luis Garavito ?

- **Riddle 2:**

How can you make  $10 + 4 = 2$ ?

- **Riddle 3:**

What is the next number in this sequence, 1, 11, 21, 1211, 111221, 312211, ?

- **Riddle 4:**

What are the next two numbers in this Sequence: 101, 112, 131, 415, 161, 718, ???, ???

- **Riddle 5:**

What is the next number in the sequence: 1, 2, 6, 21, 88, \_\_\_?

- **Riddle 6:**

Complete the pyramid by replacing “?” with the correct numbers.

1  
11  
21  
1 2 1 1  
1 1 1 2 2 1  
??????  
????????

**Answer Key:**

**Riddle 1 ANSWER:** He was a Mass Murderer.

**Riddle 2 ANSWER:** 10 o'clock + 4 hours = 2 o'clock

**Riddle 3 ANSWER:** This series describes each number that came before it:

1 [One]

11 [One One]

21 [Two One(s)]

1211 [One Two and One One(s)]

111221 [One One, One Two, and Two One(s)]

312211 [Three One(s), Two Two(s), and One One]

**Riddle 4 ANSWER:** 192 021 Explanation- If you look at it as two-digit numbers you'll see: 10 11 12 13 14 15 16 17 18 19 20 21

**Riddle 5 ANSWER:** 445

$2=(1+1)1$

$6=(2+1)2$

$21=(6+1)3$

$88=(21+1)4$

So  $445=(88+1)5$

**Riddle 6 ANSWER:**

3 1 2 2 1 1

1 3 1 1 2 2 2 1

Explanation:

Read Line as one 1 → 1

Read Line 2 as two one → 2 1

Read Line 3 as one two and one one → 1 2 1 1 and so on.