

Cybersecurity CyberSnack: 3D Eyes Image

Time: 10-15 min

What You'll Need: **Steganography - 3D Eyes Image 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, steganography, cryptanalysts, logical thinking, thinking outside the box, problem solving, pattern recognizing

Activity Steps

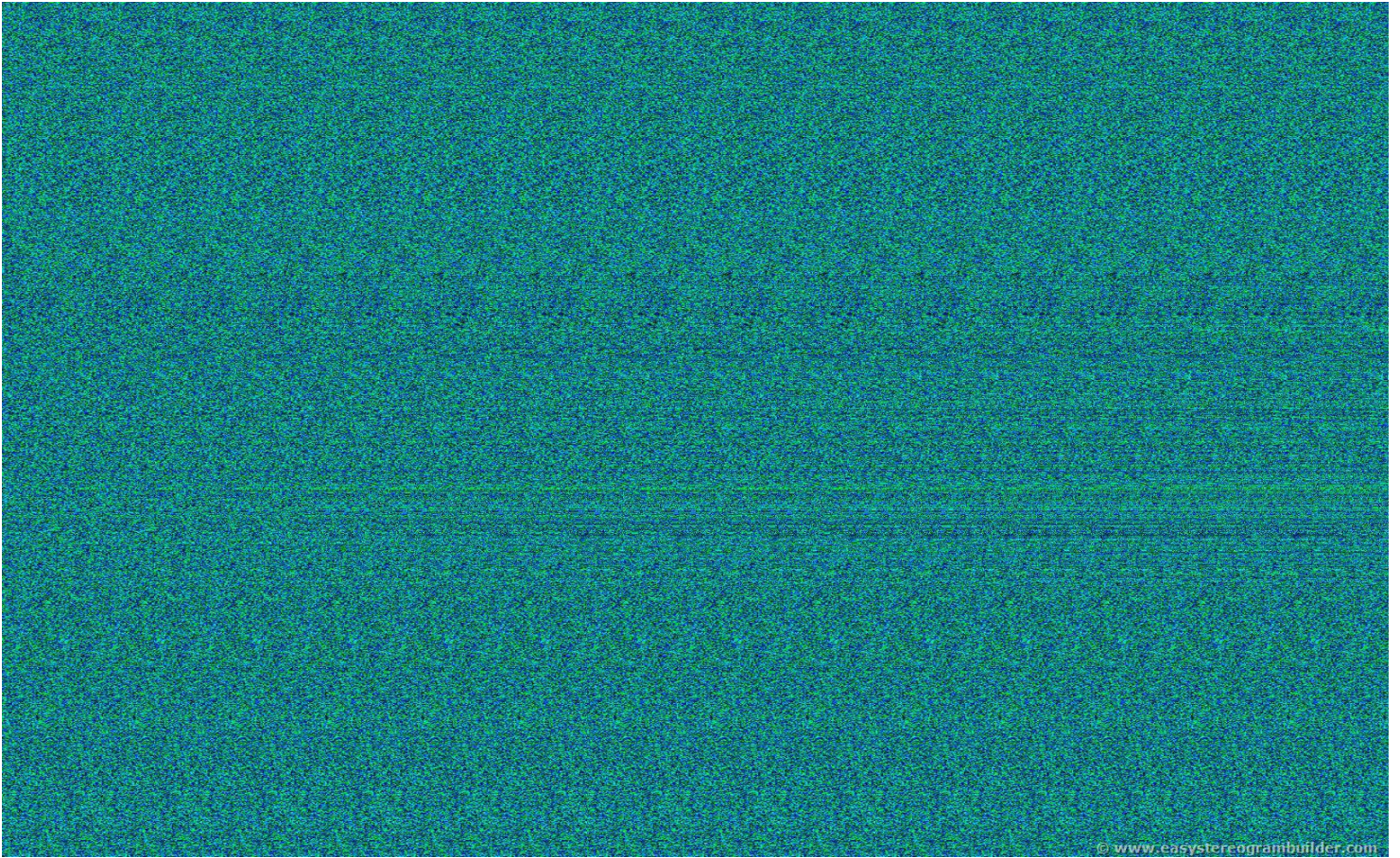
Teacher Action	Student Action
<ol style="list-style-type: none"> Display the 3D Sterogram Image and ask or share the question: <i>What do you see in the image?</i> Have students think, ink, speak- <ol style="list-style-type: none"> <u>Think</u>: 1-2 minutes to think of an answer to the question and to ask for clarification if needed <u>Ink</u>: 1-2 minutes to ink (write) down response <u>Speak</u>: Students share responses in the teacher’s preferred format. <u>Reflection Question</u>: Follow same format as Think, Ink, Speak- <i>What do you think is the connection between the activity you did and a cybersecurity career?</i> ANSWER: Pair of eyes Explain context: <p><i>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. Steganography is the practice of hiding a secret message inside of (or even on top of) something that is not secret. Unlike cryptography, it does not involve encoding and decoding. Instead, it is a form of data hiding and can be done in very clever ways. Discuss the connection between careers in cybersecurity and the skills cybersecurity practitioners use such as: logical thinking, need for people who think “out of the box,” problem solving, recognizing patterns. Security analysts (for example, pen testers) work to identify the tactics, techniques and procedures (TTPs) of attackers and pen testers. Over the years, they have identified common signatures that steganographic applications use. This is why antivirus applications, for example, can identify typical moves made by steganographic applications. Pen testers and attackers morph and modify their procedures to prevent detection.</i></p> <u>Reflect</u>: Have students reflect on written responses and change or modify their answers as needed. 	<ol style="list-style-type: none"> Think of possible answers and ask for clarification as needed. Then write down possible answer to the questions. Students then share responses in teacher chosen method Students think, record answer, and share answer in the teacher's preferred method. Students listen and take notes if need be Students review their responses from reflection questions and change or modify their responses as needed







3D Eyes Image Handout



What do you see in the image?