

Learning Objectives

Students will

- Explain what is Side Channel
- understand what a side channel can do
- Students will collect, analyze, and represent data using appropriate tools.

Approximate Time

- Lesson length: 3 days
- Comprehension Questions: 20 mins

Standards

Programming I

- L2.DA.CVT.01 Use data analysis tools and techniques to identify patterns in data representing complex systems.


Materials needed:

- School Issued Computer
- Internet service
- Operating Google Account

LiveLesson Schedule

- Google Meets Information:
- Into to Coding - Weekly LiveLesson @ 10:00 am
 - Mondays · 10:00 – 10:30 am
 - Time zone: America/Denver
 - Google Meet joining info Video call link: <https://meet.google.com/vwa-guae-iwe>

LESSON PLAN

| | Resources | Questions | Est. Time |
|---|--|---|-----------|
| 1 | DISCUSSION PROMPTS | Discussion Prompts Discuss these questions with during LiveLesson session:: <ol style="list-style-type: none"> 1. What is a side channel? 2. What are examples in your life that have side channels, given two examples? 3. Why is it important to understand side channel in real world situations? | 10 mins |
| 2 | Article <ul style="list-style-type: none"> • https://www.sciencedirect.com/topics/computer-science/side-channel | <ol style="list-style-type: none"> 1. Students will read during individual study time to prepare notes on questions related to the content covered in this lesson. 2. Students will be given time after review of the article and relevant content during the LiveLesson for Q&A. | 30 mins |
| 3 | REFERENCE <ul style="list-style-type: none"> • Pearson Connexus Introduction to Coding- Python VIDEO (1:48) <ul style="list-style-type: none"> •  Side Channel Att... | <ol style="list-style-type: none"> 1. Using the traffic light side channel group video on research for summer research experience. Students will review the video during LiveLesson and the last 10 minutes will be used for clarification of information. | mins |

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| 4 | <p>ACTIVITY</p> <ul style="list-style-type: none"> • Discussion | Students will write down using 2 -3 full sentences of their understanding of how the side channel was being used in the video. They will submit their responses in a discussion box In Pearson for this activity.. | 2 days |
| 5 | <p>EXIT TICKET</p> <p>❖ Teacher Tip: To access this Exit Ticket during LiveLesson, click on the Poll question to respond to each question during the last 10 minutes of the session.</p> | <p>Exit Ticket</p> <p>Informal poll questions using Google Meets:</p> <ol style="list-style-type: none"> 1. What did you like about Side Channel? 2. How do you think you will use Side Channel in Computer Science? 3. What was the least interesting aspect of side Channel you found during this lesson? 4. What suggestions would have helped you better understand the content covered in this lesson? | 10 mins |

***Teacher Tip:**