



CYBER SECURITY TIPS AND TOOLS

MOBILE SECURITY

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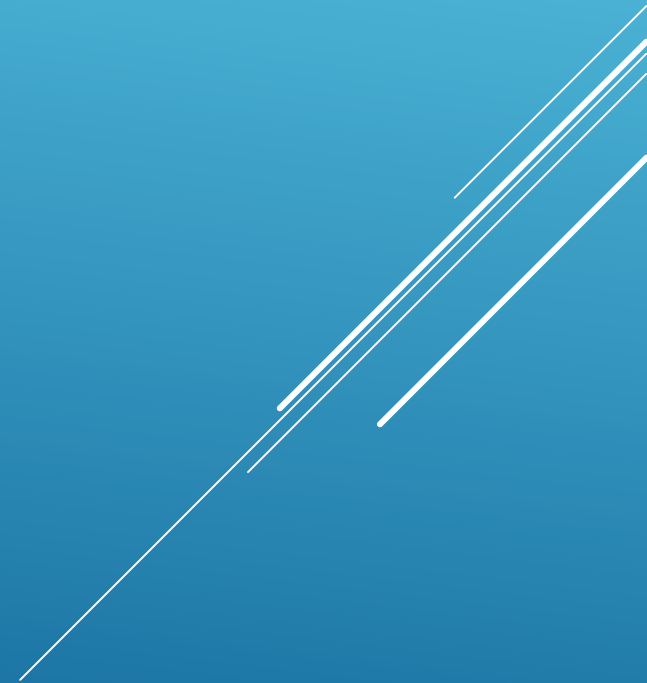
(512) 463-5095



Data Security Advisory Committee

The Data Security Advisory Committee (DSAC) provides guidance to the Texas education communities, maximizing collaboration and communication regarding information security issues and resources which can be utilized within the educational communities served.

The DSAC is currently comprised of representatives from school districts, ESC's, TEA and the private sector.



Texas Gateway

<https://www.texasgateway.org/>

Cyber Security Tips and Tools

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Online resources FOR YOUR CLASSROOM

Find engaging, TEKS-aligned resources that you can use with your students as part of classroom instruction, intervention, acceleration, or additional practice.

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BROWSE TEKS

BROWSE RESOURCES ▶

Search

Featured Resources

Getting Started Guide

Starting the Conversation

ELA & READING
Targeting the 2 Percent

T2
PERCENT

Restorative Discipline Practices in Texas

SOCIAL STUDIES
Social Studies TEKS: Supporting Information

MATH
Teacher2Teacher Math Video Series

Teacher2Teacher

cybersecurity data
Cyber Security Tips and Tools

Introduction to the Revised Mathematics TEKS
MATH
Mathematics TEKS: Supporting Information

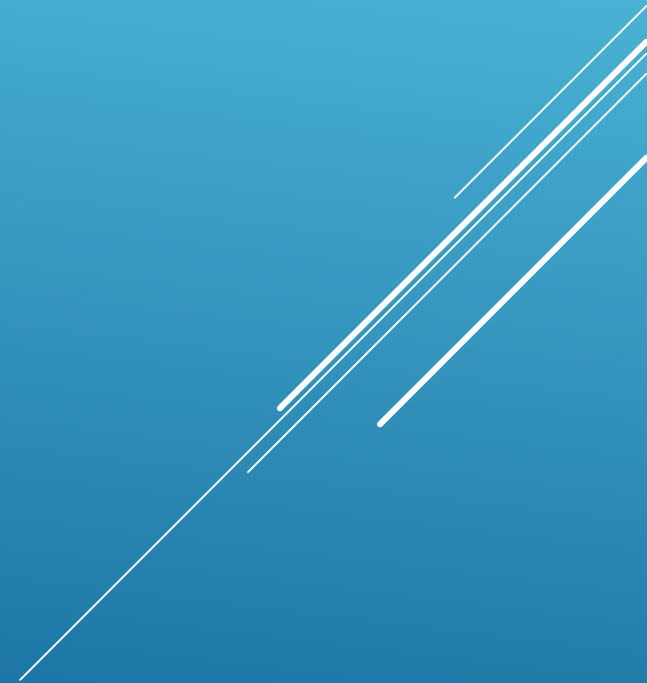
ELA & READING
OnTRACK English II Reading: Understanding and Analysis of Literary Text

Literary Text




Wireless Infrastructure

Mobile Devices



Basic Information Security Concepts

- Confidentiality
 - Integrity
 - Availability
 - Information Leakage
 - Denial of Service
 - Illegitimate Use
 - Accountability
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Basic Communications Issues

- Content Privacy
 - Location Privacy
 - Linkability between sender and recipient
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Basic Objects to Protect

- Information
- Meta-data

Basic Elements

- Hardware
- Operating Systems
- Applications

Wireless Infrastructure

2 or 3 unique wireless networks

- Guest
- Employees BYOD
- Institution owned mobile devices

Mobile Devices

- Laptops
 - Tablets
 - Smartphones
 - USB devices
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WHAT IS STORED ON YOUR MOBILE DEVICE THAT YOU DON'T WANT OTHERS TO SEE?

Files on your memory card

Contacts

SMS messages

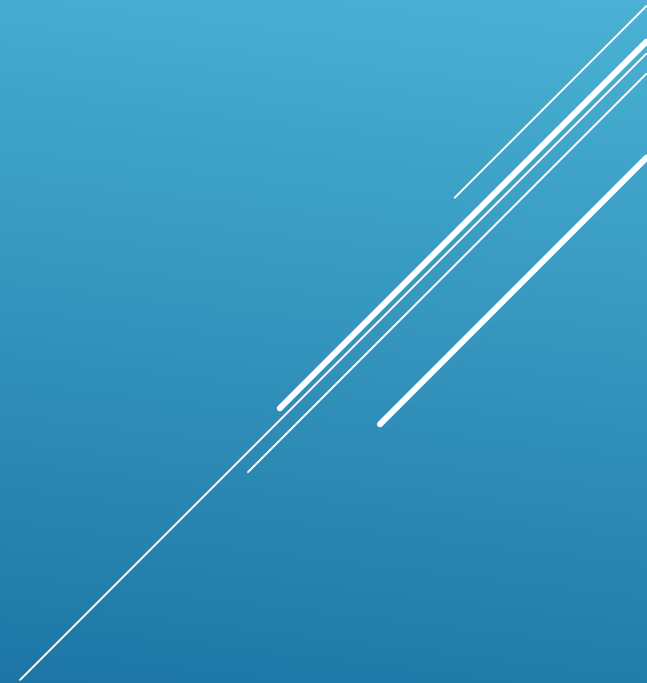
Pictures

Call/System logs


GPS location

Control over your microphone or camera


Phone identity number




MOBILE DEVICE VULNERABILITIES

- Physical access.
 - Social engineering.
 - "Rooted" or "jailbroken" devices.
 - Bluetooth, Wi-Fi, infrared, or other short range wireless connectivity.
 - Email.
 - SMS.
 - Third-party applications.
 - USB or memory cards.
 - Operating system vulnerabilities.
 - MySQL database vulnerabilities.
 - GPS/location information.
 - Camera and microphone.
 - Cached credentials.
 - Downloads.
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MOBILE VULNERABILITY MITIGATION

- Mobile device management
 - Remote wipe, remote lock, and the GPS location services in case device is lost or stolen
 - Anti-malware and endpoint protection (personal firewall)
 - Secure connection (VPN) to the workplace
 - Strong authentication
 - Digitally signed third-party software
 - Separation of personal data from work data
 - Protection from theft and data loss
 - Protection of the data and company network in case the device is lost or stolen
 - Download policies to prevent downloads from unknown sources
 - Policies against rooting/jailbreaking devices
 - Record of ESN of every device
- 

MOBILE DEVICE MANAGEMENT

- Device provisioning in enterprise including enrollment and authentication
 - Remote device lock or wipe
 - Account management
 - Turn on/off device features
 - GPS, Wi-Fi, and cellular device location
 - Remote software deployment
 - OS/application/firmware updates
 - Application management
 - Secure backup and information archiving
 - Secure, encrypted "container" on device to segregate organizational access and data
 - Jailbreak or root access protection
- 

Laptops

Whole Disk Encryption

- Microsoft BitLocker
- Apple FileVault

Tablets

Encryption

- iPad - encrypted by default
 - Android - Manual but easy to implement via Settings and Security
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Smart Phones

Encryption


- iPhone - encrypted by default when using passcode
- Android - Manual but easy to implement via the Settings under Security

E-MAIL

Outlook has a free application for both iPhone and Android users which works with Outlook and other email apps

USB Drives

Encryption

- Microsoft – BitLocker can encrypt USB drives
 - Apple – Disk Utility can encrypt USB drives– be sure to backup drive first as all data will be erased
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Questions?

