

SLIDE OUTLINE · GRADES 3-5 · 8 SLIDES

Passphrase power

An editable PowerPoint version of these slides is included in the lesson pack.



Passphrase power

- Long. Silly. Secret.
- Different for every account

SLIDE 1 · SPEAKER NOTES

Open with the warm-up question: cat or PurpleCatTacosMoon? Remind students that nobody says or writes a real password today.



The password guessing race

- Round 1: one secret animal (6 choices)
- Round 2: one color plus one animal (36 choices)

SLIDE 2 · SPEAKER NOTES

Use the two lists on the board. Tally guesses. Round 1 is usually found in under six guesses; Round 2 usually is not found in two minutes. Point out: you only added one word.



Every word multiplies

- 1 word: 6
- 2 words: 36
- 3 words: 216
- 4 words: 1,296
- 4 words from 1,000: one trillion

SLIDE 3 · SPEAKER NOTES

Show the multiplication: $6 \times 6 \times 6 \times 6 = 1,296$. Then $1,000 \times 1,000 \times 1,000 \times 1,000 = 1,000,000,000,000$. Compare to a 4-digit PIN, which has 10,000 choices (0000 to 9999).



Long beats tricky

- P@ssw0rd1 is short and uses common swaps
- Guessing programs try those swaps first
- Aim for 16 or more characters

SLIDE 4 · SPEAKER NOTES

The national guidance for password checking (NIST) says length is a main factor in password strength and that people make predictable swaps when forced to add symbols. CISA suggests at least 16 characters, and a passphrase of 4 to 7 unrelated words is one way to get there.



Two ways to build one

- Silly sentence: PurpleCatTacosMoon
- Random words: roll a die, pick from a word bank
- Skip names, birthdays, pets, teams

SLIDE 5 · SPEAKER NOTES

Model both methods out loud. For the silly sentence, use whole words, not first letters. First letters make a short password.



Never reuse

- Different passphrase for every account
- One leak should not open every door

SLIDE 6 · SPEAKER NOTES

Explain with keys: if one key opened your house, your bike lock and your locker, losing it would be a big problem. Different keys keep a problem small.



Share only with a trusted adult

- Parent or guardian
- Teacher or school technology helper
- Think someone saw it? Tell and change it.

SLIDE 7 · SPEAKER NOTES

Make the trusted adults concrete by pointing to the names on the board. Repeat that nobody gets in trouble for telling.



Build your practice passphrase

- Pick a method
- Write 4 or more words
- Count, check, picture

SLIDE 8 · SPEAKER NOTES

Hand out the builder. Remind students: practice only. Then move to the scenario cards in groups of four.