Power Up: Science ACT Prep, Week 4

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Time Frame 35

Essential Question(s)

How can I increase my ACT score?

Summary

In this fourth science ACT prep activity, students explore the TestNav online platform which they will use to take the ACT. They will become familiar with the program's embedded tools which are available to students during the test. Students will reflect on their preferences as they evaluate the usefulness of each available tool. This is the fourth activity in a 10-week "Power Up" series for ACT Prep.

Learning Goals

- Explore the available tools for use when taking the computer-based science ACT
- Reflect on the usefulness of each tool to the timely completion of the science ACT
- Evaluate when it is best to annotate on the screen and when it is best to make notes on scratch paper

Attachments

- Activity Slides—Science ACT Prep, Week 4.pdf
- Activity Slides—Science ACT Prep, Week 4.pptx
- Science Test Tool Hunt—Science ACT Prep, Week 4 - Spanish.docx
- Science Test Tool Hunt—Science ACT Prep, Week 4 - Spanish.pdf
- Science Test Tool Hunt—Science ACT Prep, Week 4.docx
- Science Test Tool Hunt—Science ACT Prep, Week 4.pdf

Materials

- Activity Slides (attached)
- Science Test Tools Hunt handout (attached; one per student)
- Pen/pencil
- Device similar to what students will take the ACT with the program TestNav pre-loaded
- Goal Sheet from Week 1 (optional)

10 minutes

Introduction

Teacher's Note

Make sure TestNav is preloaded on student devices before the lesson. This program can be found on the ACT site: https://www.act.org/content/act/en/products-and-services/state-and-district-solutions/act-info-for-examinees.html

Use **slides 1-4** to introduce the lesson and share the essential questions and learning objectives. Next, move to **slide 5** and explain that today they will use the TestNav platform on their computers. Have students open TestNav on their computers but not sign in.

Students have to have this program on their device to take the online ACT at school. When they open the program, instead of signing in, have them click on “Practice Tests.” Explain that today they will not worry about the questions themselves, but the tools available to them when they take the ACT. Since the goal is to explore tools, have students select “Science” and then “Science- Untimed.” Explain that text-to-speech and screen reader options will not be available for the real test unless they have testing accommodations so we will not be exploring these as a whole class but they can on their own time if they like.

Ask students to click “Start” and then “Start” again to get to the questions and tools. Review the points on slide five regarding understanding where to find the tools. Ask what clues they see in the testing icons and text. Give students time to explore the tools as they toggle through the questions. Explain that they can read the passages and questions if they like, but the goal is to find all of the tools that they can and see how they work in the testing platform.

Remind them that clicking on lots of tools now, as opposed to durning the test, won’t harm any scores or break anything in the program, so they should take time to see what is offered and examine how the tools work.

20 minutes

Activity

Move to **slide 6**. This slide shows all of the places they can click to access the different tools. Ask students to pause their exploration but leave TestNav open. Pass out the **Science Test Tool Hunt** handout to each student. Explain that now they have had time to explore they need to evaluate how helpful these tools really are. They should list as many pros and cons as they can for each tool. If there are any tools they missed finding in their exploration, help them find it or ask a friend to point it out.

After giving students a few minutes to make their lists, assign an Elbow Partner to compare answers. If their partner has an answer they do not, they can determine if they need to add it to their own list and if it is a pro or con for them. Remind students that it is good to be familiar with the tools and know which ones they want to use because the more time spent on the tools during the actual test, the less time there is to answer the questions.

Have students share out their thoughts on each tool to the class and point out anything they may have missed.

Teacher's Note

One student's pro may be another student's con. Point this out as you assign partners and let students know they aren't trying to convince someone to change their opinions, just looking at other perspectives.

5 minutes

Wrap-Up

Teacher's Note

Preview the TestNav science test before the lesson and confirm that question 7 still involves computation. If it does not, locate a question on the test that does to use as an example instead.

Display **slide 7**. Explain to students that most national test centers have paper rather than computer-based tests and that even for their computer-based tests they will be given scratch paper to use. Note that there is no way to write on the test screen so if they have any computations to do that has to be done on scratch paper.

Have students navigate to question 7 of the TestNav science test. Explain that they will not be reading the entire passage at this time. Instead, they will be looking for what the passage says about the size of a rock trail in relation to the size of the actual rock. If the trail is 33cm wide about how wide was the rock? Give students a minute or two to answer the question using the back of their Science Test Tool Hunt as scratch paper. Then show **slide 8** and have them follow along. Explain that this is a great example of when the tools available in TestNav are not enough to find the answer to a question. They may need additional supports or strategies to find the answer to a question.

Ask what other notes they may want to take on paper.

Sample Student Responses

Write down and circle question numbers to come back to for checking.

Notes on if trends go up or down.

Draw out what is happening in an experiment.

Explain that in the next few weeks we will practice when paper notes can be helpful in powering up their ACT scores, but to keep in mind when the computer-based tools may be helpful to use as well.

Display **slide 9** to show this week's unlocked achievement; TestNav tools.

In the time that remains, ask students to revisit their goal sheet from Week 1. Ask if they have worked on their selected actions and give them time to think about adding another to focus on over the next few lessons.

Research Rationale

Standardized testing in high schools has long been used as a metric for assessing college readiness and school accountability (McMann, 1994). While there has been debate surrounding the accuracy of such metrics, as well as concerns regarding equity, many institutions of higher education continue to make these scores part of the admissions process (Allensworth & Clark, 2020; Black et al., 2016; Buckley et al., 2020). In addition to admissions, it is important to keep in mind that standardized test scores can also provide students with scholarship opportunities they would not otherwise have (Klasik, 2013). Although the topic of standardized testing continues to be debated, effective test preparation can ensure that our students are set up for success.

With several benefits to doing well on college admissions tests, it is important to consider how best to prepare students for this type of high-stakes test. Students from groups that may historically struggle to find success, such as those in poverty or first-generation college students, especially stand to benefit from effective test preparation (Moore & San Pedro, 2021). The American College Test (ACT) is one option students have for college admissions testing that is provided both at national centers and school sites. Taking the time to understand this test, including the timing, question types, rigor, and strategies for approaching specific questions, can help prepare students to do their best work on test day and ensure their score is a more accurate representation of what they know (Bishop & Davis-Becker, 2016).

Resources

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