Virginia

Standards of Learning
Guided Practice Suggestions

**For use with the Biology
Practice Items in TestNav^{TM} 8**

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Change Log

Updates to this document will be reflected in the table.

Change Log		
Version	**Date**	**Description**
V.2	10/21/2016	General information updated.
V.1	09/02/2016	Original Document Posted.

Introduction to TestNav^{TM} 8: MC/TEI Document

The *Introduction to TestNav 8: MC/TEI* document serves as an introduction to the new online navigation, tools, accessibility features, and overall functionality and appearance of TestNav 8. It is highly recommended that teachers (or other adults) read the *Introduction to TestNav 8: MC/TEI* document prior to reading this guide, the *Guided Practice Suggestions* for the Biology practice item set.

Reading the *Introduction to TestNav 8: MC/TEI* document will give teachers an understanding of the features of TestNav 8 prior to working with students**.** In part, the document provides information on:

- opening the practice item sets within the required TestNav 8 Application,
- navigating through the practice item sets,
- answering technology-enhanced items (TEI) and multiple-choice (MC) items,
- using the online tools, and
- using the accessibility features available in TestNav 8.

This important information should be used in conjunction with the information found in this guide.
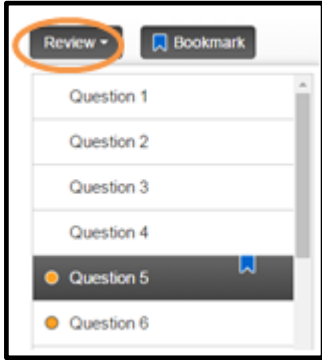
Guided Practice Suggestions

This guide provides specific item information for each question in the Biology practice item set in table format. Along with the item information in the table, there is a column titled "Guided Practice Suggestions." This column contains information for teachers as they guide students through the practice items. For instance, guided practice suggestions can state, "Use the eliminator tool to place a red 'X' on the answers that are not correct," or, "Make sure students know how to select draggers and place them in the empty boxes using their mouse, keypad, or touchscreen." Following the suggestions in the table will ensure that students are exposed to all of the different tools within TestNav 8, the different functionality features of TEI, and the common messages that may appear as students complete TEI.

Biology Practice Item Information and Recommended Guided Practice Suggestions

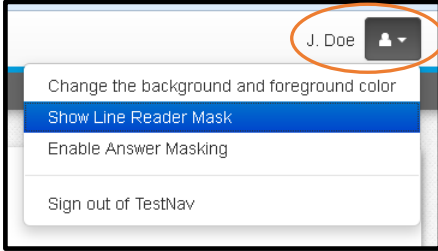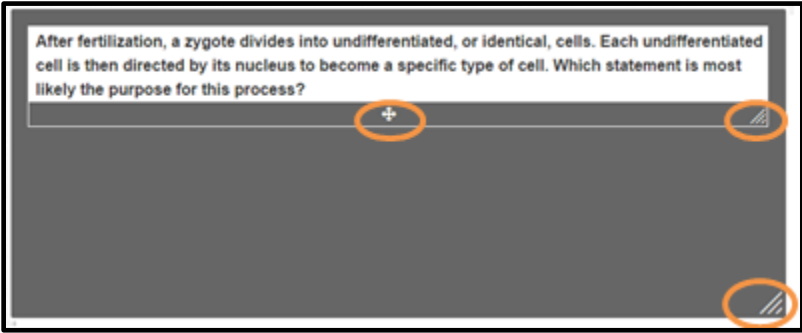| Question	Item Type	Answer Key	Guided Practice Suggestions
1	MC	C	Throughout the practice item set, move to the next or previous screen in a section by selecting an arrow in the top left corner of the screen. A blue arrow indicates the button is active and can be selected.
2	MC	D	Have students select the eliminator tool located in the toolbar. Then have them scroll to the question and place a red "X" on the answers that are not correct. When a tool in the toolbar is active, it will be dark gray. In the picture above, the eliminator tool is active. To remove an "X," keep the eliminator tool active and select the "X" to remove it. Have students practice removing an "X." Multiple-choice items must be answered in TestNav 8 by selecting the letter of the answer option or the option itself using the mouse, keypad, or touchscreen. On multiple-choice items, once an answer is selected, the item cannot be returned to an unanswered state (no answer selected) unless the student uses the eliminator tool to place an "X" over the selected answer and then selects the "X" again to remove it. Remind students that placing an "X" on the incorrect answer choices does not complete the item. A selection must be made with the pointer tool in order for the item to be considered "Answered."

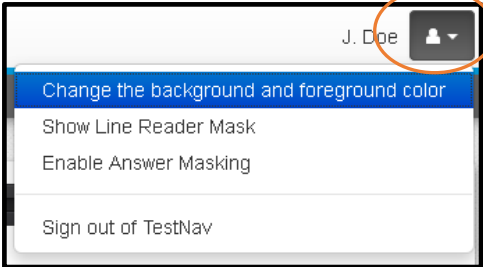| Question	Item Type	Answer Key	Guided Practice Suggestions
3	TEI Drag and Drop	In this order: *Evaporation* in the top box, *Cohesion* in the middle box, then *Absorption* in the bottom box	Have students select draggers and place them in the empty boxes using the mouse, keypad, or touchscreen. As soon as a dragger is selected and moved, each receptacle box turns blue and is outlined by a dotted line. This indicates that the dragger can be placed in that box. Some items have multiple receptacle boxes and sometimes a restriction is placed on where a dragger can be placed. A selected dragger, once selected and moved, can only be placed in the boxes that shade light blue. Selecting a dragger and moving it to an empty box will cause the remaining draggers to shift location in the answer option area. This item will not be considered "Answered" until all boxes have an answer in them.
4	TEI Drag and Drop	From left to right: *Hypertonic, Isotonic,* and *Hypotonic.*	Have students practice moving draggers back to the gray box. Draggers will go back to their original location when returned to the gray box. The labels must be in the correct order. This item will not be considered "Answered" until each box has an answer in it.

Question	Item Type	Answer Key	Guided Practice Suggestions
5	MC	A	Have students select the *Bookmark* button and tell them that when they select the *Bookmark* button, it will turn dark gray. This button would be used to mark a question for review at a later time. Then have students select the *Review* button. A drop-down menu will appear. All of the questions in the current section will be listed. The question that the student is viewing on the screen will be shaded dark gray. This question has an orange circle next to it because it has not yet been answered. This question will also have a blue flag next to it because it was just bookmarked. Have students practice using the scroll bar to see the status of each question in the drop-down menu. Have students close the *Review* drop-down menu and deselect the *Bookmark* button. Then, tell them to look at the *Review* drop-down menu again to see that the question no longer has a blue flag.

Question	Item Type	Answer Key	Guided Practice Suggestions
6	TEI FIB	For this question, 34 or 35 or 36 are considered correct responses.	Tell students that the answer does not need to be as long as the response box. If a student tries to enter too many numbers, this message will appear: You cannot use that character. A question may specify that the answer must be given in a particular format. Remind students to read the question carefully so they know how to answer the question.
7	TEI Drag and Drop	*Producers* in the top box on the left. *Consumers* in the top box on the right. *Decomposers* should be placed in the bottom box.	Have students try to place one dragger "over" another dragger, to show how the top dragger will return to the gray box. If a student wishes to change an answer, the dragger must be moved back to the gray box and another option must be selected and moved into the response box. Each answer must be in the correct box.

Question	Item Type	Answer Key	Guided Practice Suggestions
8	TEI Hot Spot	*Cell Membrane, Lysosomes,* and *Vacuoles*	The eliminator tool works on some TEI items as well as Multiple-Choice items. Have students select the eliminator tool located in the toolbar and then place a red "X" on the answers that are not correct. To answer this question correctly, all the correct answers in the gray box must be selected. A blue box outlines the answer choice when it is selected, indicating a student has chosen that response as an answer. In order to deselect an answer and remove the blue box, the answer choice must be selected again. Have students practice selecting and deselecting an answer. Tell students that when there are an unspecified number of answers, the question will be considered "Answered" when one answer has been selected. This is so no clue or hint is given as to how many answers are correct. Unlike this question, some items will specify the number of answers to select. If a student tries to select more than the number of answers indicated, a message appears in the top right corner of the screen. You must remove an answer before you can choose a new one. [×] This message will remain for approximately five seconds unless the "X" is selected to close the message. This item allows all answers to be selected.

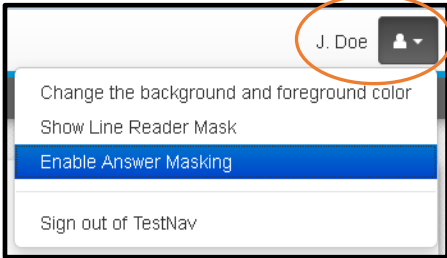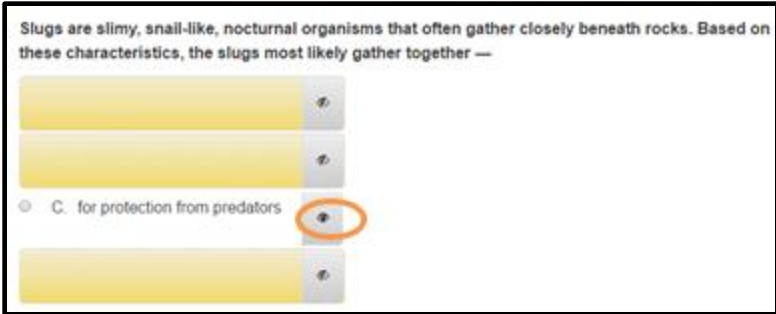| Question	Item Type	Answer Key	Guided Practice Suggestions
9	TEI Drag and Drop	From left to right: 20 μm model, 10 μm model, 4 μm model, and 2 μm model	On this item the gray box will decrease in size when a dragger is removed. However, the gray box will expand to accept the dragger once the dragger is placed back over it. Draggers will go back to their original location when returned to the gray box.
10	TEI Drag and Drop	From left to right: the largest cell, the medium-sized cell, and the smallest cell	Have students practice moving draggers back to the gray box. Draggers will go back to their original location when returned to the gray box. This item will not be considered "Answered" until each box has an answer in it. The images must be in the correct order.
11	TEI Drag and Drop	The correct order is: Top left box – A disease; Middle box – pathogens; Bottom box – inherited.	This item will not be considered "Answered" until each box has an answer in it. The images must be in the correct order.

Question	Item Type	Answer Key	Guided Practice Suggestions
12	MC	A	Have students practice using the Line Reader Mask accessibility feature with this item. Select the user drop-down menu and *Show Line Reader Mask* from the menu. The Line Reader Mask will appear over the item. Have students use the diagonal line areas to practice resizing the area covered by the line reader and the window through which content can be seen. Have students use the cross to move just the window through which content can be seen. Hold down on any part of the gray area and drag the tool to move the entire tool. To turn off the Line Reader Mask, select the drop-down menu and select *Hide Line Reader Mask*. If the student does not turn off the Line Reader Mask, it will automatically turn off when the student navigates away from the item.

Question	Item Type	Answer Key	Guided Practice Suggestions
13	TEI FIB	35	Tell students that if an answer has four or more digits, it will be scored as correct with or without the use of commas. If a comma is used, it must be in the correct location within the number.
14	MC	B	Have students practice using the accessibility feature that allows them to change the background and foreground color. Select the user drop-down menu and *Change the background and foreground color* from the menu*.* There are six different options other than black on white, which is the default setting. Have students select a contrast setting and then the *Continue* button to enable this feature. This feature could be used by students who would benefit from the use of color contrasting to make text more distinct. This setting will remain enabled until turned off. To turn off this setting, select the user drop-down menu, select *Change the background and foreground color,* and then select the button next to the default setting. Then select the *Continue* button.

Question	Item Type	Answer Key	Guided Practice Suggestions
15	TEI FIB	The correct responses are: *UAA* or *UAG* or *UGA*. One of those answers must be selected to be correct.	This question has the Drawing Interaction Tool. The Drawing Interaction Tool is a boxed area that exists on certain science questions. The pencil may be used to make marks, notations, straight lines, or dots on or around artwork or graphs inside the Drawing Interaction area. The student selects the specific tool he/she wants to use and uses it to help answer the question. The top tool is the pencil or straight line tool. The arrow in the bottom right corner expands the tool so a student may select free draw or the straight line. A dot may be placed if a student uses his mouse, keypad, or touchscreen. The student would select free draw and use his mouse or keypad to click and release to place a point. If using a touchscreen, the student would use his finger to place a point. The second tool is used to erase selected lines, markings, or writing. The third tool allows the markings to be black or green. The arrow in the bottom right corner expands the tool so a student may select the color. The fourth tool allows the students to select the thickness of the markings. The arrow in the bottom right corner expands the tool so a student may select the size. The fifth and sixth tools are used to Undo or Redo the most recent markings.
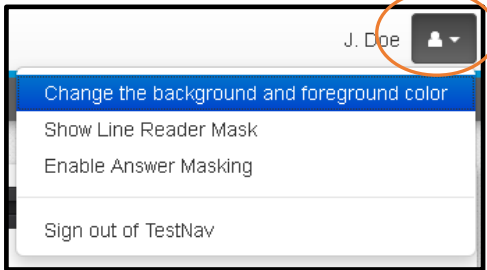
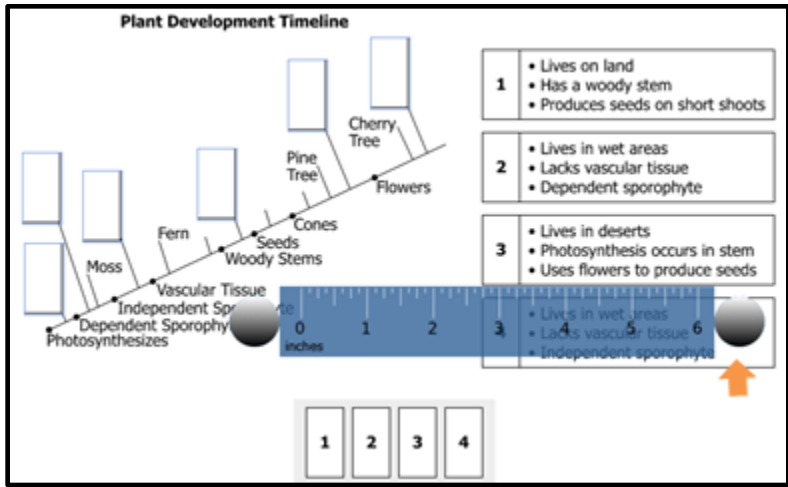| Question	Item Type	Answer Key	Guided Practice Suggestions
15 (Cont.)			The last tool allows all markings to be eliminated at the same time. Have students practice marking on the figures and removing the marks made to help answer the question.

Question	Item Type	Answer Key	Guided Practice Suggestions
16	MC	D	Have students practice zooming in to look at the question on the screen, and then have them zoom out. On a PC or Chromebook, press the CTRL and + keys at the same time to zoom in. Press the CTRL and – keys at the same time to zoom out. Press the CTRL and 0 (zero) keys at the same time to return to the default screen size. On a Mac, press the COMMAND and + keys at the same time to zoom in. Press the COMMAND and – keys at the same time to zoom out. Press the COMMAND and 0 (zero) keys at the same time to return to the default screen setting. On a touchscreen, have students touch two points on the screen and then move their fingers away from each other to zoom in. Touch two points on the screen and then move those fingers toward each other to zoom out. If the item has a Drawing Interaction tool, students must touch two points located outside the Drawing Interaction window in order to zoom in or out. To drag the screen to the right or to the left, the student must be touching the screen outside the Drawing Interaction window. As students are practicing how to zoom in and out, make sure they are doing so within reason. If students zoom in too far, they may not be able to see all of the information necessary to correctly answer the question. If students zoom out too far, they may not be able to clearly see details of the question on the screen. It should also be noted that zooming in and out on the screen may cause the text wrapping to change. Remind students that they should only use this feature when necessary. Before students go to the next question, make sure they return to the default screen.

Question	Item Type	Answer Key	Guided Practice Suggestions
17	MC	C	Have students practice using the Answer Masking accessibility feature with this item. Select the user drop-down menu in the top right corner of the screen and select *Enable Answer Masking* from the menu. The answer options on multiple-choice items will now be masked as shown in the screenshot. Students may show or hide each option by selecting the "eye."
18	MC	D	Notice that the Answer Masking tool will remain on in each multiple-choice item until it is turned off. To turn off Answer Masking, select the user drop-down menu and select *Disable Answer Masking*.

Question	Item Type	Answer Key	Guided Practice Suggestions
19	MC	A	Have students practice using the online calculator by selecting the calculator icon. Once selected, the calculator will appear on the screen. Students can move the calculator on the screen by holding down inside the top of the calculator and dragging it to a new location. Make sure students familiarize themselves with knowing how to select and use the calculator if needed. Have students enter the calculations for this particular question on the calculator to help them determine the answer. Selecting the calculator icon again will put the tool away; or, select the pointer tool to put the calculator away.

Question	Item Type	Answer Key	Guided Practice Suggestions
20	TEI Drag and Drop	All the arrows should be pointing UP.	To highlight using a keyboard, have students place the cursor next to the direction sentence, left click, hold down, and drag the cursor over the sentences. Then have students select the highlighter color from the pop-up box.*

To remove the highlight, left click, hold down, and drag over the sentences. Then select the white box with the red line on the left side of the pop-up box.

On a touchscreen, have students hold down on the sentences with a finger, and adjust the area to be highlighted with the blue anchors. Then have students select the highlighter color from the pop-up box.* To remove the highlight, hold down on the text with a finger, adjust the anchors so that they are at the ends of the highlighted sentences, then select the white box with the red line on the left side of the pop-up box.

Tell students that the highlighter tool will only work on text. It will not work on art (images/pictures).
On a touchscreen, the following message may appear when students highlight text.

In the practice items, selecting one of the options listed will open a new window and direct students to the internet. This will not occur in the actual testing environment; selecting an option will not direct the students to another screen.

*Pink and blue are the two highlighter colors available when the foreground and background settings are set to the default (black text on white background). These colors may change when the foreground and background setting is changed. |

Question	Item Type	Answer Key	Guided Practice Suggestions
21	MC	D	Have students practice using the accessibility feature that allows them to change the background and foreground color. Select the user drop-down menu and *Change the background and foreground color* from the menu*.* There are six different options other than black on white, which is the default setting. Have students select a contrast setting and then the *Continue* button to enable this feature. This feature could be used by students who would benefit from the use of color contrasting to make text more distinct. This setting will remain enabled until turned off. To turn off this setting, select the user drop-down menu, select *Change the background and foreground color,* and then select the button next to the default setting. Then select the *Continue* button.

Question	Item Type	Answer Key	Guided Practice Suggestions
22	TEI Drag and Drop	The correct number sequence from lower left to upper right is: blank box, 2, 4, blank box, 1, 3.	In order for this item to show as "Answered" on the Section Review screen, all four numbers need to be placed in a box on the timeline. Practice using the ruler tool as a straight edge to familiarize students with this tool. There are two ruler tools on the top of the screen ( ). The icon on the left should be used to access the eighth inch ruler and the icon on the right should be used to access the centimeter ruler. To move the ruler, select and drag the ruler over to the object to be measured. To rotate the ruler, select and drag an end with the circle. Have students practice moving and rotating the ruler. Selecting the ruler tool icon again will put the ruler tool away; or, select the pointer tool to put it away. Students will use the pointer tool to select the answer after measuring.
23	MC	B	Information for Teachers: This is the end of the practice item set. See the *Introduction to TestNav 8: MC/TEI* document for information on closing TestNav.