

Appendix: Directions for sorting on a) the sorting platform and b) Blackboard.

a) Directions given to students who used the Proven by Users sorting platform:

IMPORTANT!!!! Read ALL the instructions below before starting.

Biological structures exist at all levels of organization, from molecules to ecosystems. A structure's physical and chemical characteristics influence its interactions with other structures, and therefore its function.

In protein trafficking, structure and function relationships allow proteins to be transported to the appropriate location within and outside a cell. The following cards all represent different examples of protein trafficking.

1. Your job is to sort the cards into **two groups**. Each card should be sorted into **one and only one group**.
2. Name each of your groups based on the characteristic(s) you used to sort them.

Sorting Directions:

To make a group, drag a card from the column on the left into the grey area on the right. To add more cards to a group, simply drag the card from the column and drop it onto an existing card(s) in the grey area. Remember, only make two groups and use up all your cards! Then add a name to each of your two groups.

If you need more room, use the + and – buttons next to the group name. Once you've sorted all the cards into one of your two groups, click "I'm Done" be prepared to answer 4 more questions.

You can review these instructions again at any time by clicking “View Instructions” at the top right of the screen.

b) Directions given to students who used Blackboard:

Biological structures exist at all levels of organization, from molecules to ecosystems. A structure's physical and chemical characteristics influence its interactions with other structures, and therefore its function.

In protein trafficking, structure and function relationships allow proteins to be transported to the appropriate location within and outside a cell. The following cards all represent different examples of protein trafficking.

1. Your job is to print out the cards, cut them up, and then sort the cards into two groups. ***Each card should be sorted into one and only one group.***
2. Name each of your groups based on the characteristic(s) you used to sort them.
3. After you have completed this activity, answer the following questions.