

# Hijacked Cells! Organizer

1. What infection are you modeling? \_\_\_\_\_
2. How does the pathogen disrupt cell functions? Use information from your Hijacked Cells! model and modeling instructions to fill in the table.
  - a. Using the information in the Affected Cell Structures table on the following page, list the cell structures that are affected by your infection (Column 1).
  - b. Describe how the pathogen affects the cell structure to harm the cell (Column 2).
  - c. List the specific harm to the cell (Column 3) and the step(s) in the modeling instructions where it happens (Column 4).

1. Cell Structure(s)	2. How does the pathogen hijack it?	3. Harm to the cell	Step(s)

3. How does the pathogen spread? List specific structure(s) and how the pathogen uses them.

# Affected Cell Structures

This table shows the main cell structures that are affected in each infection. List the affected structures that match your model in Column 1.

<b>A – Influenza v. Airway Cell</b>	<b>B – <i>E. coli</i> v. Intestine Cell</b>	<b>C – TSWV v. Leaf Cell</b>
Cell membrane	Microvilli	Ribosomes & ER
Ribosomes, ER & Golgi	Cell membrane	Cell membrane & Cell wall
Nucleus	Cytoskeleton	Golgi

**Structure cards**

Model A, Column 1

<b>A</b> Cell membrane	<b>A</b> Ribosomes, ER & Golgi	<b>A</b> Nucleus
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**Structure cards**

Model B, Column 1

<b>B</b> Microvilli	<b>B</b> Cell membrane	<b>B</b> Cytoskeleton
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**Structure cards**

Model C, Column 1

<b>C</b> Ribosomes & ER	<b>C</b> Cell membrane & Cell wall	<b>C</b> Golgi
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**Harm cards**

Model A, Column 3

<b>A</b> The cell has fewer resources for reading its own genes.	<b>A</b> The cell has fewer resources for building its own proteins.	<b>A</b> The cell has trouble maintaining its container.
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**Harm cards**

Model B, Column 3

<b>B</b> The cell can't keep things out that should stay out.	<b>B</b> The cell has less surface area for absorbing nutrients.	<b>B</b> The cell's shape changes, and it can't do its job as well.
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**Harm cards**

Model C, Column 3

<b>C</b> The cell can't send its own proteins to where they need to go.	<b>C</b> The cell has fewer resources for building its own proteins.	<b>C</b> The cell can't keep things out that should stay out.
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