Name _____ Period _____

Science Starters – Cell Parts

For extended response questions, answers must be written in full sentences and the question must be restated. For multiple choice questions, first choose the right answer and then using complete sentences explain why you chose the answer you did.

Read the following description of an island to help you answer questions Day 1 through Day 5.

The Isle of Arca Archa is a rectangular shaped island sitting in the middle of a vast sea. Arca Archa has 6 ports where products come onto the island and waste leaves the island. The ports are heavily guarded so that no materials enter or leave the island without permission. Near the center of Arca Archa the largest building on the island sits on top of a hill. People call the building The Hall of Justice, and all decisions to run the island are made in this structure. Just down the road from this large building is The Big Muscle Brick Factory. The factory makes bricks that are used to build structures all throughout the island. At the northwest corner of Arca Archa, a power plant sits in view of the ocean. The power plant burns natural gas to make electricity, which is used all over the island. Next to the power plant is the Use It Again Recycling Center. In this center, waste products from around the island are broken down so that they can be used again by the island's inhabitants or more easily transported off the island.

Day 1
Read the following portion of the description of the Isle of Arca Archa.

> *"Arca Archa has 6 ports where products come onto the island and waste leaves the island. The ports are heavily guarded so that no materials enter or leave the island without permission."*

Compare the island to a cell. Which part of a cell does the description above most closely resemble?

A. Cell Membrane B. Lysosomes C. Mitochondria
D. Nucleus E. Ribosomes

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Day 2
Read the following portion of the description of the Isle of Arca Archa.

> *"Near the center of Arca Archa the largest building on the island sits on top of a hill. People call the building The Hall of Justice, and all decisions to run the island are made in this structure."*

Compare the island to a cell. Which part of a cell does the description above most closely resemble?

A. Cell Membrane B. Lysosomes C. Mitochondria
D. Nucleus E. Ribosomes

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Day 3
Read the following portion of the description of the Isle of Arca Archa.

> *"Just down the road from this large building is The Big Muscle Brick Factory. The factory makes bricks that are used to build structures all throughout the island."*

Compare the island to a cell. Which part of a cell does the description above most closely resemble?

A. Cell Membrane B. Lysosomes C. Mitochondria
D. Nucleus E. Ribosomes

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Day 4

Question 1 - Read the following portion of the description of the Isle of Arca Archa.

> "At the northwest corner of Arca Archa, a power plant sits in view of the ocean. The power plant burns natural gas to make electricity, which is used all over the island."

Compare the island to a cell. Which part of a cell does the description above most closely resemble?

A. Cell Membrane B. Lysosomes C. Mitochondria
D. Nucleus E. Ribosomes

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Question 2 - Read the following portion of the description of the Isle of Arca Archa.

> *"Next to the power plant is the Use It Again Recycling Center. In this center waste products from around the island are broken down so that they can be used again by the island's inhabitants or more easily transported off the island."*

Compare the island to a cell. Which part of a cell does the description above most closely resemble?

A. Cell Membrane B. Lysosomes C. Mitochondria
D. Nucleus E. Ribosomes

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Day 5

Think about other parts of a cell and the structures that could be on the Isle of Arca Archa to represent these parts. Complete the chart below to show a comparison between cell parts and the island.

Cell Part	Isle of Arca Arcah	Comparison
Nucleolus	Library inside the Hall of Justice	Inside the nucleus is the nucleolus which contains the RNA. The RNA contains the blueprints to make proteins. A library contains information that people can use, just like the nucleolus contains information that the cell can use.
Cell Wall		
Vacuole		
Chloroplast		

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