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|  **Surface Area to Volume Ratios** |  |



Directions: For each of the shapes below, use play-doh and make a small and large version of each shape. Using a ruler to measure your play-doh shape and the collegeboard formulas above, calculate the surface area to volume ratios.

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| --- | --- | --- | --- | --- |
| Shape |  | Surface Area | Volume | SA/V Ratio (divide surface area by the volume) |
| Sphere | Small |  |  |  |
| Large |  |  |  |
| Cube  | Small |  |  |  |
| Large |  |  |  |

Explain why a greater surface area to volume ratio is more efficient for delivering nutrients and eliminating wastes.