

***Exploring Minerals***

**with Geologist Gabriela Farfan**

*Companion Worksheet*

***Directions*: Select a biomineral in the** [**“Exploring Biominerals” collection**](https://learninglab.si.edu/collections/exploring-biominerals-with-collections-from-the-smithsonians-natural-history-museum/ugHREk2Pda63AGHJ) **on the Smithsonian Learning Lab. A biomineral is a mineral made by a living organism. Use that biomineral to fill out this worksheet.**

* **Circle the biomineral that you selected**:
	+ Coral
	+ Mollusk
	+ Diatom
	+ Skeleton
	+ Echinoderm
	+ Bamboo
	+ Glass sponge
	+ Coralline algae
* **How do you think minerals help your organism survive? Circle your ideas.**
	+ Provides protection
	+ Provides support
	+ Provides a place to store minerals, to keep the organism healthy
* **Do you think that this animal would survive if it couldn’t make this mineral?**
	+ Yes
	+ No

***(FLIP PAGE TO CONTINUE)***

* **Look at the table below. Find and circle the biomineral that you selected under the “Object” column. Follow the table across to the next column labelled “Mineral” and circle the name of that mineral. Well done, that’s the kind of mineral that your organism made.**
* **Look at the mineral you circled in the table. Look in the Learning Lab collection: can you find a *geological* mineral that shares the same mineral name? Look for: apatite, calcite, aragonite, barite, or silica.**
* **Compare your biomineral and the naturally occurring mineral with the same name. Do they look the same?**
* **Can you predict why they look different? (*Hint: The geological mineral is made by Earth’s natural processes).***

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| **Object** | **Mineral** | **Chemical Formula** |
| Mollusks, corals, echinoderms | Aragonite and Calcite | CaCO3 |
| Bones, teeth,  | Apatite | Ca5(PO4)3(OH, F, Cl) |
| Algae | Barite | BaSO4 |
| Diatoms, sponges, grasses | Silica | SiO2 |