Sea Foam

When it looks as if the beach or surf is littered with billows of soapsuds, the reason is not that someone has dumped a carload of detergent into the ocean. This common sight of spring and summer (and occasionally, brief periods in fall and winter) results from prolific reproduction of tiny single-celled plants of the sea called "phytoplankton."

Each individual is housed in a skeleton made of calcium or silica. Conditions of sun, temperature, and nutrients (such as nitrogen, phosphorous, silica, and calcium) stimulate rapid growth and reproduction. When the cycle has run its course, billions of individuals die.

Sea foam is created when waves or strong winds inject air into the dissolved organic matter in ocean water, forming bubbles. The organic matter, mostly made of dead microscopic plants, contains protein that gives the water enough surface tension to form bubbles. Surf and winds cause the mass to pile up in the familiar, sudslike masses.

If a microscope is available, you might want to take samples of foam to look at. The skeletons have a beauty that is seldom captured by drawings or photographs. Windrows of phytoplankton remains should tell you that the sea off our coast is producing tons of food for other creatures in the food web.

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