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**Marine Biology Article #3: Engineering coral to cope with climate change (10 pts)**

Answer the following questions after reading: ***Researchers embrace a radical idea: engineering coral to cope with climate change*** By Warren Cornwall Published by Science on Mar. 21, 2019 [**https://www.sciencemag.org/news/2019/03/researchers-embrace-radical-idea-engineering-coral-cope-climate-change**](https://www.sciencemag.org/news/2019/03/researchers-embrace-radical-idea-engineering-coral-cope-climate-change)

1. How many times do coral spawn each year? How long can do the eggs have to be fertilized before they die?

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2. What is ocean acidification and how is it expected to affect coral? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3. How much of the coral in the Great Barrier Reef has died due to warming waters? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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4. Describe one of the four ways that researchers are trying to save coral through “assisted evolution”? (Three and shown in the infographic).\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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5. How do the two closely related coral species *Acropora tenuis* and *Acropora loripes* prevent any cross-breeding in the wild? How are researchers getting them to hybridize in the lab?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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6. Hoe are researchers using the gene editing technology known as CRISPR to improve corals resistance to higher temperatures? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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7. What are some of the other ideas researchers have come up with to save the coral? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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8. What are cane toads and why are some worried that “super corals” could become a problem like cane toads?

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