



Observing the Regeneration of Sea Stars from Cut Pieces



Question: Can sea stars regrow missing parts? In this experiment, you will observe sea star pieces over time to see if new arms or other parts grow back.

1. Materials

- Sea star (from a pet store or marine supplier)
- Shallow container or aquarium
- Marine saltwater
- Scissors (for cutting sea star pieces)
- Small ruler
- Notebook or lab sheet
- Camera or drawing supplies

2. Procedure

1. Fill the container with marine saltwater.
2. Gently place the sea star in the container and let it settle.
3. Using scissors, carefully cut the sea star into pieces.
 - Try cutting through the center to make arm pieces with part of the central disc.
 - You can also cut off an arm tip.
4. Record your observations of the pieces right after cutting.
5. Return the pieces to the saltwater.
6. Observe the pieces every day.
7. Record any changes.
8. Continue observations for at least 3–4 weeks.

3. What to Observe

- Do new arms grow?
- Does the central disc heal?
- How long does it take for new parts to appear?
- Do all pieces regenerate?
- Compare the growth of different pieces.

Care Tips



Keep the water clean and well-aerated.



Maintain a temperature of 60–68°F (15–20°C).



Provide low light.



Do not overfeed. A small amount of food 2–3 times per week is enough.

4. What Regeneration Might Look Like



Note: Regeneration time can vary. Some pieces may grow faster than others.

5. Data Table

Date Date	Piece Description (e.g., arm piece, central disc piece)	Observations (changes in size, new tissue, arm growth, etc.)	Sketch (or Photo #)

6. Conclusion

What did you observe?

What does this experiment show about sea stars?
