45 MINS

12

Activity 1

Saltmarsh Scramble!

Equipment required:

- Copy of 'Presentation 1: Saltmarsh Scramble!' and device to share with learners
- Large open outdoor area, e.g. school field or playground
- Large piece of paper and pencil or pen
- Clipboard (optional)
- Something to mark two lines (e.g. chalk/cones)

To complete the activity:

1. (Slide 4) In pairs, ask learners to discuss:
    - What is a Special Area of Conservation (SAC)?

After discussion, share the definition on the slide to clarify and confirm understanding.

2. (Slide 5) Share the concept cartoon and encourage learners to read each character's opinion carefully and discuss their ideas in pairs. Ask:
    - Who do you think is right?
    - Could more than one person be correct?
    - Why do you think we protect these areas?
    - What might happen if these areas weren't protected?

All statements are true: Special Areas of Conservation (SACs) are conservation sites that safeguard species and protect habitats. Marine SACs help protect habitats such as saltmarshes and reefs that are important for wildlife, including otters, wading birds and plants.

3. (Slide 6) Support learners to identify a local marine SAC and consider features that it protects, such as saltmarshes, mudflats, estuaries and seagrass beds.

4. (Slide 7-8) Encourage learners to describe what they can see and to discuss why saltmarshes may be protected. Support learners to explore the location of the nearest saltmarsh.

5. (Slide 9) Reinforce key habitat needs with learners: food, water, shelter and space.
Ask learners to come up with motions to represent food, water and shelter (e.g. food = hands on mouth; water = hands making waves; and shelter = hands clasped over their head).
Explain to learners that wildlife populations in saltmarshes continuously fluctuate in response to a variety of (limiting) factors, e.g. not enough food, water or shelter.

6. (Slide 10) Ask all learners to count off aloud in sequence: "1, 2, 3, 4,1, 2, 3, 4..." until everyone has a number. Ask all learners who said "1" to line up behind the 'crab line' with all the "2s," "3s," and "4s" behind the 'habitat line'. The two lines should be set approximately 10 meters apart. Learners behind the crab line will be 'shore crabs', whilst learners behind the habitat line will represent the three essential components of a habitat (food, water and shelter).
The crabs will need to find food, water and shelter in order to survive.

7. Record the number of crabs at the start of the activity on a large piece of paper. Continue to record the crab population at the end of each round, for approximately 12 rounds.

8. At the beginning of each round, both groups (crabs and habitat components) should face away from each other. Ask all learners to choose one habitat component, and on signal, ("One, two, three, crabs!"), each crab and habitat component will turn to face the opposite group, clearly showing one habitat need sign. When crabs see the habitat component they need (another learner whose sign matches theirs), they run to that learner and bring the 'food,' 'water,' or 'shelter' back to the crab line. 'Capturing' a habitat component represents the crab successfully meeting its needs and reproducing as a result. Any crab that fails to find its chosen habitat component is considered unable to survive and must move to the habitat line. Remind learners that they cannot change what they are looking for during the round.

9. After the learners have played 6 rounds, introduce a predator, such as a heron into the simulation. The predator can tag crabs only when they are going towards their habitat component. Once tagged, the crab is escorted back into the den and will change role and become a predator for the next round.

10. In the final round, you may wish to ask all learners on the habitat component line to turn around without making any habitat component sign. This may represent environmental pollution or habitat destruction.

11. At the end of the 12 rounds, bring all learners together to discuss the activity.
    - What did they notice?
    - What do animals need to survive?
    - What happened to the crab population over time?
    - What are the 'limiting factors' that affect the survival of animals?
    - How did the number of crabs fluctuate?
    - How did introducing a predator affect the crab population?
    - Why is a good habitat important for animals?

ADDITIONAL TASK Optional

(Slide 11) Encourage learners to use the data gathered during the activity to create a graph to show how the shore crab population has changed over time. Then, ask learners to analyse any trends they observe.

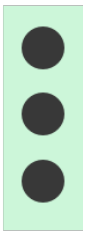
RESEARCH TASK Optional

Challenge learners to visit the North Wales Wildlife Trust website www.tiramor.cymru/saltmarshes (Resource 1) to find out what shore crabs look like, where they live, what they eat, and how they survive in their habitat.

Saltmarsh Scramble!

CRAB LINE

APPROX 10M



PREDATOR DEN

HABITAT COMPONENT
FOOD/WATER/SHELTER