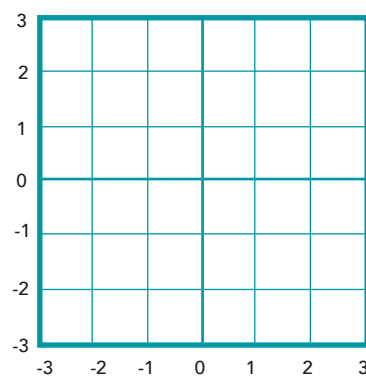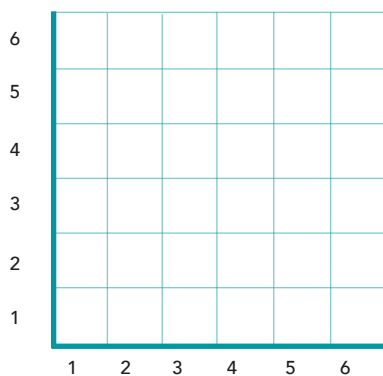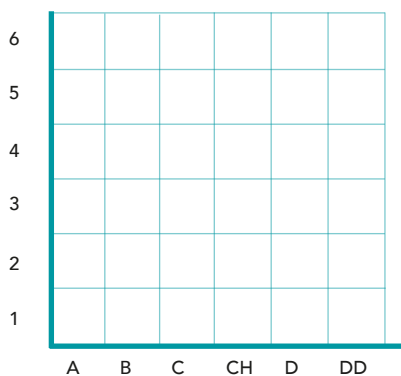# Oyster Battleships

**Equipment required (per group)**
- Chalk

To set up

1. Organise learners into groups of 10–12.

2. Support learners to create a large 6x6 grid using chalk on the ground. Each square must be big enough for a learner to sit in comfortably - this represents the ocean floor where oysters live.

3. Encourage learners to label the axes. They could use:
   - Letters for one axis and numbers for the other, like the traditional Battleship game e.g. A–F ,along one axis, 1–6 along the other.
   - A simple Cartesian grid using positive coordinates e.g. (3,2).
   - Negative numbers on one axis e.g. (–2 to 2) to explore basic coordinate concepts.

4. Ask each group to choose one learner to be the 'fisher'. The fisher must turn away from the grid or close their eyes while the rest of the group (acting as oysters) silently choose their grid positions.

30 mins

Oyster Battleships
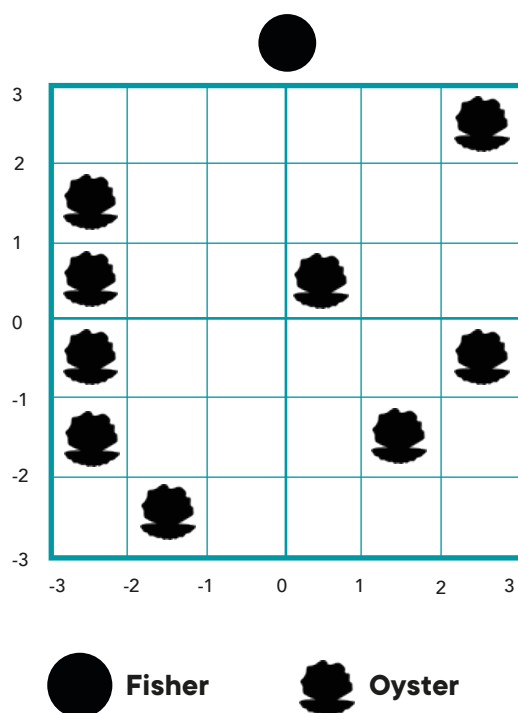
● **Fisher**　　🦪 **Oyster**

To complete the activity

1. The designated fisher has two attempts per round to catch oysters by calling out coordinates e.g. D4 or (3,2) depending on the grid type. If they pick a square where an oyster is sitting, that oyster is caught and must leave the grid.

2. Repeat the game, increasing the number of fishers to 2–3, making it harder for oysters to survive. Calculate how many oysters were caught after each round.

3. Next, give one fisher a 'better boat', allowing extra turns per round (e.g. four turns instead of two).

4. After a few rounds, swap roles so oysters become fishers and vice versa.

5. Compare how many oysters were left at the end of each round. Link this to overfishing, discussing the impact of having too many fishers or advanced fishing equipment.

6. Consider the following questions:
   • How did the number of fishers in each round affect the oyster population over time?
   • What impact did advanced fishing techniques have on the sustainability of oyster populations during the game?
   • What strategies could be introduced to maintain a balance between fishing and preserving oyster populations?

ADDITIONAL TASK *Optional*

After each round, ask learners to calculate the percentage of oysters caught using this formula:
Percentage of oysters caught = (Number of oysters caught / Total oysters at the start of the round) x 100