5E Science Lesson Plan - Blank planning template

Class 6 | Separating mixtures | Blank template and 40-minute example

Topic: _____ Class: _____ Time: _____

Learning outcome: _____

Prior understanding and materials: _____

Phase	Min	Teacher action	Pupil task	Evidence
Engage	____	_____ _____	_____ _____	_____ _____
Explore	____	_____ _____	_____ _____	_____ _____
Explain	____	_____ _____	_____ _____	_____ _____
Elaborate	____	_____ _____	_____ _____	_____ _____
Evaluate	____	_____ _____	_____ _____	_____ _____

Follow-up for the next lesson: _____

5E Science Lesson Plan - Filled example

Class 6 | Separating mixtures | Blank template and 40-minute example

Lesson outcome: choose and explain separation methods for a sand-salt-water mixture. Use observation cards and simple filtration; use a prepared picture for evaporation.

Phase	Min	Teacher action	Pupil task	Evidence
Engage	5	Show a drawing of muddy salt water. Ask: will a filter give us clean, salt-free water?	Predict the result and explain why.	Record predictions before teaching the separation terms.
Explore	10	Give groups prepared observation cards for settling, filtration and evaporation. Where available, let them filter a small sand-water mixture.	Compare what is retained and what passes through the filter.	Look for pupils distinguishing suspended material from a dissolved substance.
Explain	10	Connect the observations to sedimentation, decantation, filtration and evaporation. Explain why dissolved salt passes through an ordinary filter.	Revise an initial prediction using the new vocabulary.	Ask for an explanation linked to the observed material.
Elaborate	10	Present a new problem: recover dry salt from a sand-salt-water mixture. Use a prepared evaporation picture rather than a heating activity.	Propose and justify a sequence: filter out sand, then evaporate water from the filtrate.	Check that the chosen method matches the material to be recovered.
Evaluate	5	Use the three exit questions below.	Answer independently and explain one method choice.	Use the answers to decide whether dissolved and suspended materials need revisiting.

Exit check and teacher key

Why does dissolved salt remain after ordinary filtration?

Dissolved salt passes through the filter with the water; filtration separates the suspended sand.

How could you recover dry salt from the filtrate?

Evaporate the water to leave the salt behind.

Why should you filter the original sand-salt-water mixture before recovering the salt?

Filtering removes the insoluble sand so that it does not remain mixed with the recovered salt.

Framework reference

The five phases follow the BSCS 5E instructional model. This filled classroom sequence is Teachers Lab teaching material.

bscs.org/reports/the-bscs-5e-instructional-model-origins-and-effectiveness/