

BUILDING UP & BREAKING DOWN LESSON PLAN



Breaking Down and Building Up (Breakout EDU)
An educational Break Out box by BreakoutEDU & Wolf Ridge ELC



WOLF RIDGESM
ENVIRONMENTAL LEARNING CENTER

BREAKING UP & BREAKING DOWN



CLASS DESCRIPTION: A Group Building Class

Breakout EDU Games require critical thinking, collaboration, creativity, and communication. Each kit is a unique collection of locks, boxes, and items that can be used to play immersive learning games. Breakout EDU includes many topics. Wolf Ridge ELC focuses on the environmentally geared platforms.

Total time: 1.5 hours (indoors)

Audience: 4-20 students, 6th grade through adult

Activity level: low

Travel: none

Total uphill travel: none

PURPOSE

Collaborate as a team to decode various puzzles based on geology knowledge in order to unlock the final box with the town's dam plans.

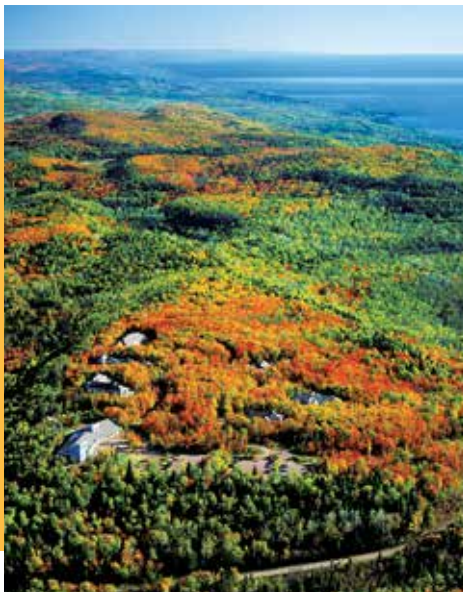
CONCEPTS

1. Erosion is the process that breaks down continents and landforms.
2. Deposition is the agent of erosion that lays down sediment.
3. There are various needs and impacts of dams.
4. Effective teams communicate well, make plans, cooperate, and include everyone.

OUTCOMES

Upon completion of Breakout Box, students will be able to:

- Construct an explanation based on evidence of how landscapes change due to erosion.
- Work as a team in order to problem solve.
- Practice self evaluation of their performances.



Our mission is to develop a citizenry that has the knowledge, skills, motivation and commitment to act together for a quality environment.

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Wolf Ridge Environmental Learning Center and the USDA are equal opportunity providers and employers.



Equipment

- 4-digit lock (code: 2332)
- 3-digit lock (code: 926)
- directional multilock (code: DUUDU)
- ABC multilock (ROUND)
- key
- red and blue arrows
- red and blue erosion and deposition sort cards
- 4 agents of erosion posters (wind, river, glacier, gravity)
- 10 agents of erosion sorting cards
- V-shaped valley
- kettle lake
- landslide
- scratched bedrock
- avalanche
- pitting or frosting
- sand dunes
- U-shaped valley
- meanders
- delta
- "Like A Rolling Stone" label
- sediments to sort (small, medium, large)
- sorting beaker
- "How Did These Features Form?" poster
- "Congratulations!" poster
- dam plans
- answer key to 4-digit lock
- brainstorm worksheet
- 2 hint cards

Appendices

- Glossary
- References
- Sources

Set-up (10 min.)

- Classroom/class prep description
- Safety Management

I. Introduction (10 min.)

- A. Greet
- B. Class Overview
- C. Assess Learner Level

II. Break Out Box Activity (50-75 min.)

- A. Background Story
- B. Break Out
- C. Congratulations!

III. Conclusion (10 min.)

- A. Reflect on the environmental topics covered in this activity.
- B. Reflect on the process of finishing the break out box.

Clean-up (15 min.)