

TOPIC: Running Water/Rivers- Life Cycle

OBJECTIVES:

1) Knowledge:

- learn the parts of a river system.
- study the cycles involved in gradational activity: life cycle of a river.

2) Skills:

- interpret topographic maps that show gradational land forms.
- create models of characteristic river landscapes.
- Measure the pH and other chemical characteristics of the Santa Fe River

RESOURCE MATERIALS:

1. [Comparison Organizer](#)
2. Topographic maps representative of stages in life cycle of rivers
3. An appropriate reference on Physical Geography

INSTRUCTIONS:

1. Hand out the topographic maps (copies- with color available for reference) and have students identify the locations on a smaller scale map.
2. Briefly explain the concept of the three stages in the life cycle of a river landscape.
3. Divide the class into groups of three: 'Home' groups.
4. Have groups assign their members a stage in the life cycle: youth, maturity, old age.
5. Based on the assigned task, students then re-group according to 'stage' 'expert' groups (max. of six per group):
6. Hand out the comparison organizer and explain 'components'.
7. Have the groups do the research.
8. Trip to the Santa Fe river for water testing experiments
9. When the research is completed, have the 'experts' return to their 'home' group and *teach* the material required for completing the organizer.

COMPLETION TIME:

- Approximately two to three 55 minute periods, plus homework: excluding any model building.

EVALUATION:

1. Students individually submit a completed organizer for evaluation.
2. Teacher monitors the students working in groups.

ADDITIONAL QUESTIONS

1. Build a model of youthful or mature river landscapes.

ADDITIONAL REFERENCES:

1. Principles of Geomorphology by Thornbury, pgs. 137-140.
2. The Physical Environment by Inch & Stone, pgs. 94-111
3. **Rivers Online** : A Special Effort Launched To Invite Schools to Participate in the Sharing of Information on Rivers
<http://rol.freenet.columbus.oh.us/index.html>