

Feather Fun

Grades 3-5

An integrated lesson plan
covering six sessions of
approximately one hour each.

Lesson-Planning Approach

Some learners perceive their “world” as a whole, where all things are interconnected and dependent upon each other. These “integrated” students face major challenges in coping with our dominant educational, social, and economic systems, which tend to present information in a linear fashion without the necessity of integration into meaningful context. Integrated students are at-risk of failing as they attempt to grasp information in ways that do not match their experience. Among large populations of at-risk students are many from Native American and similar cultures who do not regard their world as a sum of parts but as a blend of all that they experience.

This lesson plan does include some traditional, linear approaches to delivering information (checklists, rules, analysis, problem solving and organization). In addition to the traditional, linear delivery of information, this lesson plan also includes some of the following strategies, designed to appeal to at-risk students as they learn academic/life skills:

- ❖ Integration of technology
- ❖ Story telling/anecdotal information
- ❖ Non-competitive group and team work
- ❖ Performance-based assessment and rubrics
- ❖ Visual presentations and practice through technology and other means
- ❖ Project-based assignments that integrate family and community
- ❖ Activities appealing to multiple intelligences (Gardner)

Lesson Overview

Students will create a poster which displays information about the parts of a feather and their functions and a figurative language activity around the word “feather”. Two additional reading activities are included for students below the prerequisite reading level.

Lesson Objectives

Lesson Project: *Feather Fun*

Project Objectives: When students complete this project, they will be able to...

- ❖ Create a poster containing form and function as well as linguistic information about feathers.
- ❖ Identify parts of a feather and their functions.

Integration of Other Functional/Academic Skills: (Critical thinking is required throughout the lesson.) Students will be able to...

- ❖ Writing:
 - Use similes for comparisons.
 - Spell words containing targeted sounds.
- ❖ Reading:
 - Decode words containing a specific targeted sound. (for students with reading disabilities)
- ❖ Science:
 - Identify parts of a feather and their functions.
- ❖ Technology:
 - Use software to make poster display.

State/National Standards

- ❖ Colorado Science Standard 3:
 - *Students know and understand the characteristics and structure of living things.*
- ❖ Colorado Reading and Writing Standards 1, 2 & 5:
 - *Students read and understand a variety of materials by developing word recognition skills.*
 - *Students use figurative language to write and speak for a variety of purposes and audiences.*
 - *Students read to use relevant information from a variety of sources.*
- ❖ Colorado Arts Standard 1:
 - *Students use visual arts as a form of communication.*

Websites

Required:

Feather diagram - <http://birding.miningco.com/library/weekly/aa062701c.htm>

Feather diagrams - <http://www.biology.eku.edu/RITCHISO/feathers.html>

Feather part definitions – <http://globalflyfisher.com/staff/luallen/featherb.htm>

Support:

About feathers - <http://birding.miningco.com/library/weekly/aa062701a.htm>

Feather information - <http://www.geocities.com/felicitax/Birds.htm>

Definitions - <http://www.donwesley.com/defs.htm>

Feather colors -

<http://birding.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fmc.utm.edu%2F%7Eerwin%2FColorIntro.htm>

Pre-requisites

Students read at the third grade level.

Basic knowledge of Microsoft Word

Required Materials

- ❖ Poster board, construction paper, colored pencils, markers
- ❖ Examples or pictures of types of feathers including contour, down, semi-plume, filoplume, and bristle. Each should be attached to or drawn on a piece of cardboard with the feather type written on the back. (See above websites)
- ❖ Microscopes – at least 1 for each pair of students
or
Jeweler magnifying glasses

Handouts

[Handout 1](#) - feather drawing

[Handout 2](#) – language fun with feathers

[Handout 3](#) – Mrs. Grasshopper

Required Equipment/Technology

- ❖ One computer with internet connection and Microsoft word for each pair of students.
- ❖ Overhead projector

THE LESSON

Note: Students do not learn from what you do but from what you have them do.

Preparation

Days 1 & 2

Activity 1	Time Estimate	Instructor Notes
Students listen to a story about feathers called "The Hummingbird King". They then play the feather game .	2 hours	<ul style="list-style-type: none"> • Have on hand a copy of "The Hummingbird King" by Argentina Palacios. • Prepare "Feather Game" as per instructions. This may be adapted to a board game.

Presentation

Day 3

Activity 2	Time	Instructor Notes
Teacher outlines project: <ul style="list-style-type: none"> • Draw two views of a feather. • Use Internet to label and define parts. • Complete language and reading activities. • Make a poster to display work. 	1 hour	<ul style="list-style-type: none"> • Bookmark web pages for easy access. • Collect and wash feathers for distribution and display. • Have on hand copies of blank and completed handouts as models. <p style="color: brown;">NOTE: For low readers, teacher should project sites and read to students. Two additional reading activities, "The Lost Feather", and "Mrs. Grasshopper" are provided for these students.</p>

Practice and Performance

Day 4

Activity 3	Time	Instructor Notes
<ul style="list-style-type: none"> • Draw a contour feather. • Examine feather under a microscope or magnifying glass and draw a magnified view. • Go to feather diagram site on the Internet to find labels for feather parts. 	1&½ hours	<ul style="list-style-type: none"> • Demonstrate correct use of microscope or magnifying glasses. • Distribute contour feathers and handout 1 for drawing feathers.

Day 5

Activity 4 - handouts		Instructor Notes
<ul style="list-style-type: none">Complete Language Fun with Feathers Handout on similes. <p>For low readers, complete “The Lost Feather” and “Mrs. Grasshopper” slide presentation. Then illustrate the story, Mrs. Grasshopper.</p>	½ hour	<ul style="list-style-type: none">Review handouts as necessary with group and individuals.For power point presentation, show pointer if not visible by right clicking on slide and going to pointer options. <p>For low readers, first have students complete “The Lost Feather” Power Point presentation. Students may then complete the “Mrs. Grasshopper” slide presentation. Then, after having practiced words and read the story, students may illustrate the Mrs. Grasshopper book. If students need help with words, give them only the sounds they don’t know, not the entire words.</p>

Day 6

Activity 5 - Poster		Instructor Notes
<p>Group of 3-4 students creates a poster displaying:</p> <ul style="list-style-type: none">One enlarged feather diagram handout including labeled partsA compilation of similesOne complete reading handout	1 hour	Gather materials including poster board, colored construction paper, colored pencils and markers.

Lesson Assessment Strategy (Formative – As the lesson progresses)

The following information will be assessed via a questionnaire completed by students.

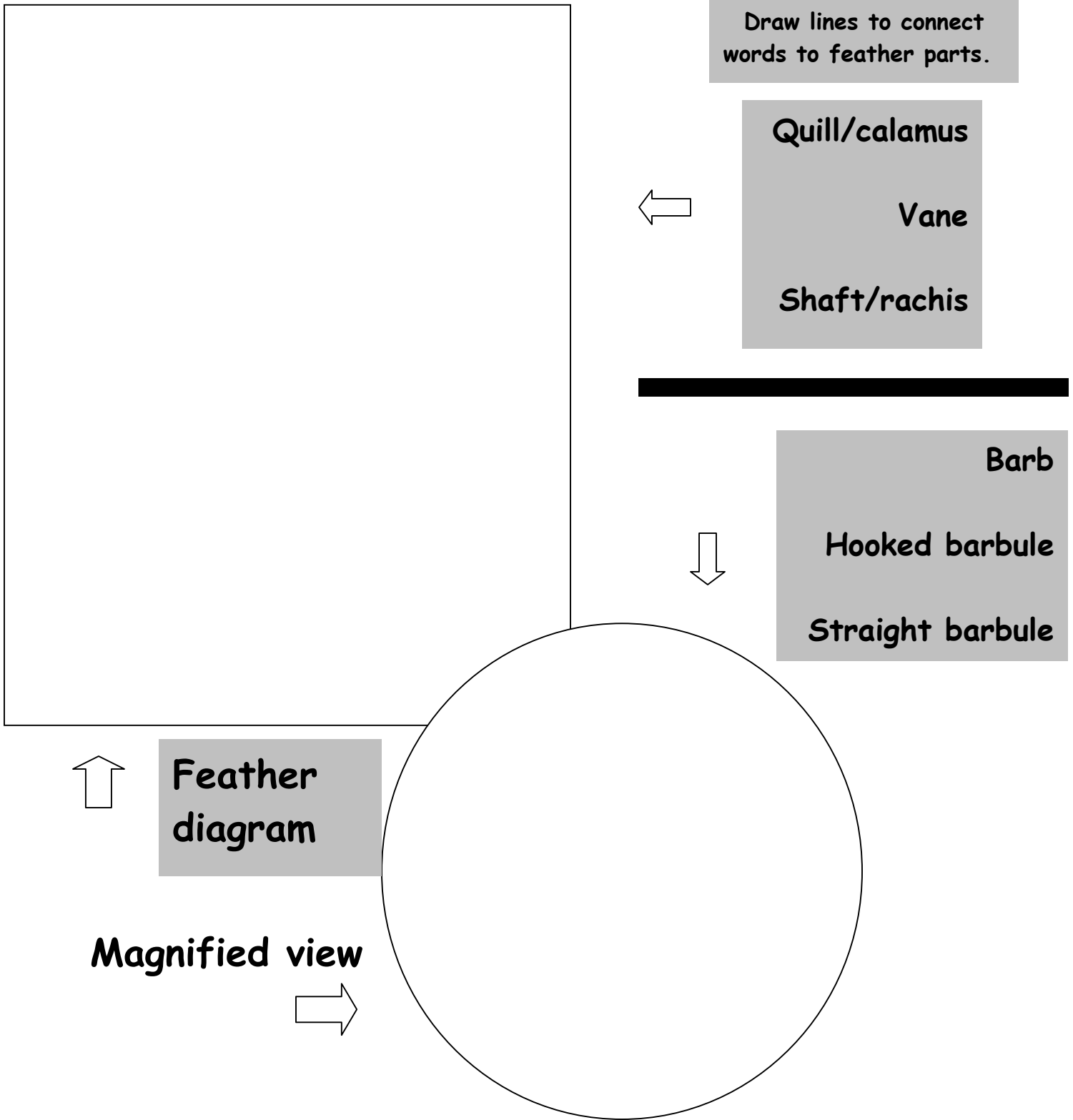
Preparation, Presentation and Overall Implementation (Instructor)

- Are instructions and expectations clear?
- Is the lesson adaptable for students with low reading and writing skills?
- How is this lesson integrated?
- Are IEP modifications being considered?
- Is the lesson too complicated? Should it be broken down into several lessons?

Performance and Practice (Student)

- Are students connecting to the lesson?
- Are all students participating in the activities?
- Are all students performing at appropriate individual levels?
- Are all students participating within the group

Handout 1 – Feather Drawing



Language Fun with Feathers

Similes

A simile is a comparison of two things using “like” or “as”.

Examples: “My brother barked like a dog.”

“Michael Jordan is as tall as a mountain.”

Complete the following similes.

Example: A bubble is _____ as **light** as a feather.

1. _____ as **light** as a feather.

2. _____ as **light** as a feather.

3. _____ as **light** as a feather.

Example: A cotton ball is _____ as **soft** as a feather.

4. _____ as **soft** as a feather.

5. _____ as **soft** as a feather.

6. _____ as **soft** as a feather.

Example: A tree is _____ as **strong** as a feather.

7. _____ as **strong** as a feather.

8. _____ as **strong** as a feather.

9. _____ as **strong** as a feather.

Mrs. Grasshopper

It was **early**. Mrs. Grasshopper **hurried** around the **corner**. She hopped past a fat pile of wood. Mrs. Grasshopper didn't see the **spider** **under** the **lumber**, but he saw **her**.



“Good morning, Mrs. Grasshopper,” said the spider, catching her by surprise. “Where are you hurrying to on this perfect day?”

“I’m hurrying to gather some food. Perhaps I will stop and see you later.” And Mrs. Grasshopper was on her way.

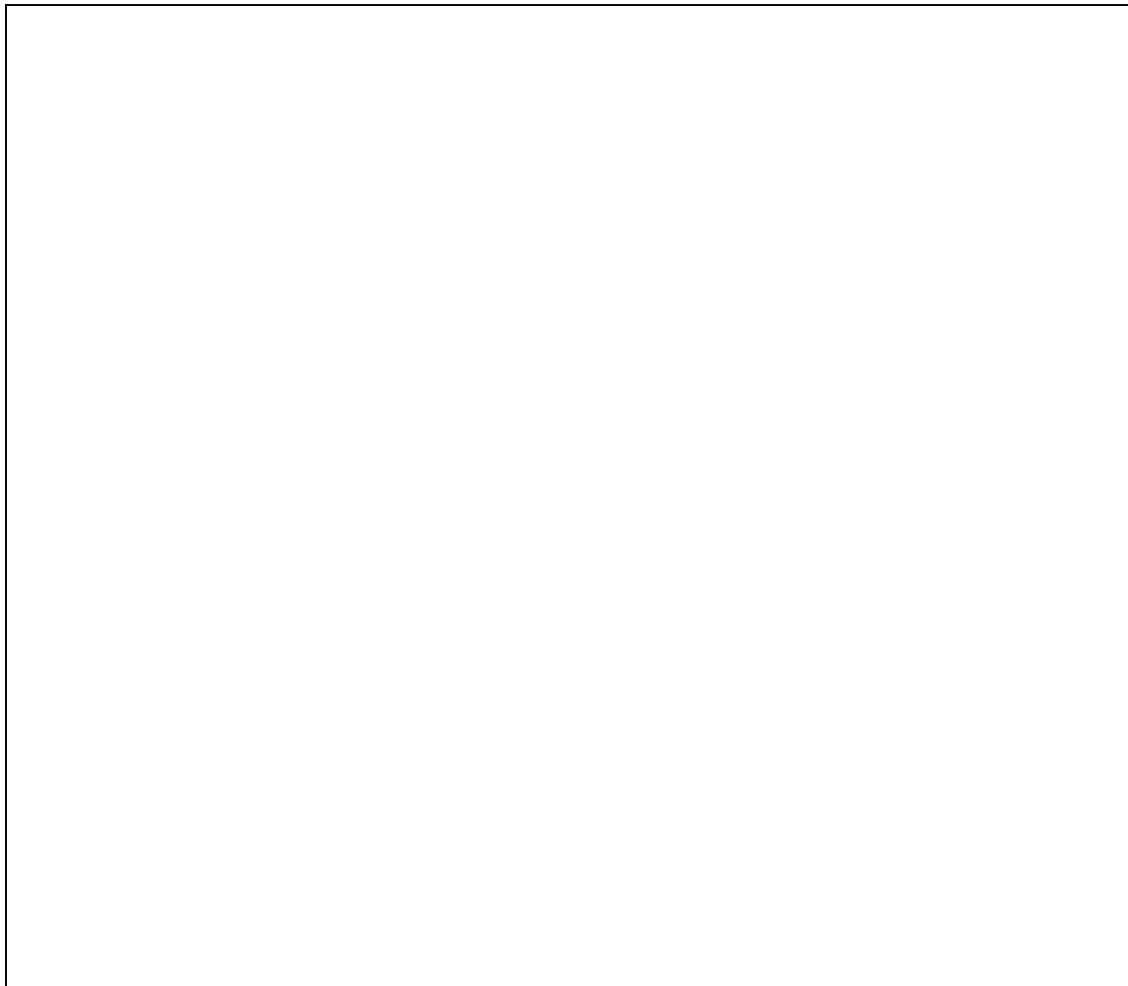
She hurried past the tractor. Mrs. grasshopper didn't see the squirrel on the tractor's seat, but he saw her.



“Good morning, Mrs. Grasshopper,” said the squirrel, catching her by surprise. “Where are you hurrying to on this perfect day?”

“I’m hurrying to gather some food. Perhaps I will stop and see you later.” And Mrs. Grasshopper was on her way.

She **hurried** along the **riverbank**. The **water** was shimmering. She didn't see the **beaver**, but he saw **her**.



“Good morning, Mrs. Grasshopper,” said the beaver, catching her by surprise. “Where are you hurrying to on this perfect day?”

“I’m hurrying to gather some food. Perhaps I will stop and see you later.” And Mrs. Grasshopper was on her way.

She **hurried, hurried, hurried** and **gathered,**
gathered, gathered. She didn't see the **bird** sitting
on the branch. But he saw **her.**

And Mrs. Grasshopper **hurried** no more.

Activity Checklist

Feather Fun Activity Checklist

	On Handout #1, draw a contour feather using a real feather as a guide
	Study your feather under a microscope or with a strong magnifying glass
	Draw a close up of your feather in the circle on Handout #1
	Go to bookmarked "Feather Diagram" site on the Internet to label parts
	Complete "Language Fun with Feathers" handout
	Complete "Feather Reading" handout
	With a group of 3-4 students, create a poster which includes: <ul style="list-style-type: none"> • One enlarged copy of feather diagram handout including labels • A collection of all similes from handout #2. (Use Microsoft Word to type these out creatively. They can be on several pages.) • One correctly highlighted "Feather Reading" handout

Lesson Rubrics

Rubrics for *Feather Fun*

	Feather Drawing	Similes
5	Both drawings are complete and neat All labels are correct	8-9 answers on handout #2 – similes are correct
4	Drawings are incomplete Most parts can be identified for labeling Labels are correct for identified parts	6-7 answers on handout #2 are correct
3	Only one drawing is completed Labels are correct	4-5 answers on handout #2 are correct
2	Drawings are sloppy and few parts can be identified	3 answers on handout #2 are correct
1	No drawings are completed	Less than 3 answers on handout #2 are correct