

Best Practices of Technology Integration

Title: *EEEE! A Spider!*

Note* This is a unit designed for Media Specialists when they see the students for 30 minutes per week for 6 weeks (Total time 3 hours) If a classroom teacher were to use the lesson plans, it could be completed within a week.

Subjects: English Language Arts, Science, Technology

Intended Grade Levels: 1st

Description:

Learning the classic Mother Goose rhyme, Little Miss Muffet, is more than just memorization! The lessons in this project are jam packed with activities to assist young students in beginning research. The students make predictions about Miss Muffet, her food and her visitor. They look for context clues in the rhyme, look for meanings of words and search for and record data on spiders.

Narrative:

The students actively participate in this lesson. It is a “hands-on/ voice-on learning activity. This lesson integrates many first grade curriculums with library and technology. (We go between the library and the computer lab to get information for, and create this project.) The children and teacher discuss their experiences with spiders and how they feel about this invertebrate. A group discussion on spiders, body parts, habitats, diet, etc. The students create a Spider Booklet using the information collected and recorded. When they have finished their booklet, they should have a good understanding of spiders.

Curriculum Benchmarks:

[MI.ELA.3.EE.6](#)

Determine the meaning of unfamiliar words and concepts in oral, visual, and written texts by using a variety of resources, such as prior knowledge, context, other people, dictionaries, pictures, and electronic sources.

[MI.SOC.III.2.EE.2](#)

Describe vertebrates in terms of observable body parts and characteristics. (Key concepts: Vertebrate characteristics-fur, scales, feathers, horns, claws, eyes, quills, beaks, teeth, skeleton, muscles, and cells. Real-world contexts: Vertebrate and nonvertebrate animals, such as humans, cow, sparrow, goldfish, spider, starfish, and animals listed above.)

MI.AE.II (Visual Arts) 19

Select and use subject matter, symbols and ideas to communicate meaning.

MI.TECH.II.EE.1

Input and retrieve information from a technological system(including the practice of word processing skills).

Detailed Timeline:

6 – 30 minute periods:

1. 30 minutes: Library/Media Center - Introduction to the rhyme.
2. 30 minutes: Computer Lab –Type title of booklet in PowerPoint (attached)
Taste “curds and whey” and sit on a “tuffet”;
3. 30 minutes: Library/Media Center – Introduce Online Encyclopedia, scan for key words and information. (Teacher led Discussion)
4. 30 minutes: Library/Media Center – Write out facts on sheet (attached)
5. 30 minutes: Computer Lab – Type facts into spider booklet
6. 30 minutes: Computer Lab – Finish Spider Books/ Evaluation Rubric (attached)

Materials/Hardware/Software:

Mother Goose Book of Rhymes - Tomie dePaola’s Mother Goose has the rhyme in it.

Extraordinary Eyes – How Animals See the World by Sandra Sinclair

Random House Dictionary – one of the large reference types for teacher to hold and use in front of group

White Board/dry erase markers (for printing the rhyme in large letters)

Computers with

- Proxima® or projection device (to allow all children to see a large image)
- PowerPoint®
- Encarta® 99, (to search for keywords on Spiders and to watch a spider spinning a web)

Spider books from Library (to collect data on spiders)

Pencils, crayons.

Prerequisite Student Skills:

Alphabet – letter recognition on keyboard, “home row”

Beginning to read common words.

Right hand/Left Hand knowledge

Opens and closes computer programs.

Lesson 1 In Library or Story Corner of Classroom

Teacher Preparation:

Have Mother Goose book (with Rhyme bookmarked)

Have Extraordinary Eyes (cover picture is great!)

Whiteboard in place with markers

Activities and Procedures:

Read Little Miss Muffet to the whole group without showing any illustrations.
“Echo” recital of rhyme, so they learn it without seeing the words.

Little Miss Muffet sat on a tuffet,
Eating her curds and whey.
Along came a spider,
That sat down beside her,
And frightened Miss Muffet away!

Have the students instruct you as you write the rhyme on the whiteboard .

Discuss the ‘unknown’ words = ‘curds’ ‘whey’ ‘tuffet’

- ❖ Have them suggest what they think the words mean
- ❖ As a Group, the teacher looks in the main hardcover Dictionary for “curds”, “whey”, and “tuffet”. (not all can be found in all dictionaries)
- ❖ Discuss the meanings.
- ❖ Look at the cover of Extraordinary Eyes. Ask if they would be frightened away if a spider with eyes like this sat down beside them.
- ❖ Discuss reasons the spider would have come down to sit by Miss Muffet

Lesson 2 – In Computer Lab and Library

Teacher Preparation:

Make an example of Miss Muffet’s Spider Book (example attached)

Whiteboard in the Lab from which the students can copy the title.

PowerPoint up and running

White paper in printer.

Have computers all logged in for students

Activities and Procedures:

(Use the first slide option in the PowerPoint program)

Teacher illustrates how to insert clipart.

Students type title “Miss Muffet’s Spider Book by” from the whiteboard and insert a picture of a spider from clipart.

Save as “Miss Muffet” (that will be the default setting)

Walk into the library/classroom

Teacher Preparation:

The low seats that the students sit on in the library are “Tuffets”

Buy a carton of cottage cheese/little paper cups/plastic spoons.

Activities and Procedures:

Each student will have the opportunity to taste “curds and whey”

Lesson 3 – In Computer Lab

Teacher Preparation:

Preview Article on Spiders

On whiteboard list six keywords and question about each: legs, eyes, fangs, diet, babies, silk –same grid as their Spider sheet) –(attached)

Be able to guide the students to the correct picture on the top (Spider spinning web)

Be able to guide students in a fact-finding lesson.

Have Proxima® or Projector set up for a GROUP discussion:

Activities and Procedures:

Teacher led group discussion – teacher projects Encarta® 99 on the screen and everyone looks for keywords (above)

In the FIND field, type in spider (singular, not plural)

Locate the topic ‘spider’ in the list below the field and click on it.

On the main page, locate and click on the “Multi-Media” box .

This will open up with a rose colored background and have 9 titles of multi-media. Choose “Spider Web” and click on the arrow to make the animation start. Allow the students to watch the whole animation without interruption. (This is such a cool animation.)

Scanning and Collecting data: SPIDER FACTS

The teacher and students will look at the pictures and scan the text and captions for the keywords: legs, eyes, fangs, diet, babies, silk. They should answer the following questions, which are written on the whiteboard and read to them or with them by the teacher:
Teacher writes the answers on the whiteboard.

How many major body parts do spiders have? Answer = 2
The head/thorax and the abdomen.

1. Legs:

How many pairs of legs does a spider have?

How many legs would that be? Answer = 4 pair

Why don't they just say 8 legs? (Each pair matches)

2. Eyes:

How many eyes does a spider have? Answer = 4 pair

How many more eyes do spiders have than humans? $8-2=6$

Do all spiders have 4 pair of eyes? No

Who has larger eyes? Hunters or Spinners? Hunters.

Why do you think the Hunters have larger eyes?

The Better to see you with, my dear! ☺

3. Fangs:

Do all spiders have fangs? Yes.

Are they all poisonous? Yes, all spiders are poisonous.

4. Diet:

What do they eat? Spiders are Carnivorous. (meaning)

They only eat live prey.

5 Babies: All spiders hatch from eggs that are protected in a cocoon.

What are baby spiders called? Hatchlings.

6 Silk: How do spiders make silk? From spinnerets on their abdomen.

What is the silk made out of? Protein. It is stronger than steel.

Lesson 4 – In the Library or Classroom

Teacher Preparation:

Make copies of a fact-finding sheet with all six keywords listed.

Have pencils available.

Activities and Procedures:

The students will review the six keywords, the questions and the answers about each: legs, eyes, fangs, diet, babies, silk.

The students will record two facts beside each keyword.

Lesson 5 & 6 – In the Computer Lab

Teacher Preparation:

Computers should be turned on and students logged in.

Activities and Procedures:

The students will produce 7 more slides using PowerPoint.

One slide should say: Spiders are invertebrates. They have 3 major body parts.

Six slides should have a keyword and two facts.

Each slide should be illustrated.

Assessment/Evaluation:

BOOKLET The creation of a booklet with the correct data under the correct keywords will be assessed. Words should be spelled correctly and numbers written correctly. Their illustrations should reflect knowledge of the body parts.

RUBRIC The rubric will focus on the facts about spiders and how well the students produced their booklet. This is a self-marking rubric. (Attached)

Follow-Up Activities:

The students could create a surprise-ending page with a folded pop out spider. The text on the last page could say “EEEK! A Spider!

Scholastic has two terrific magazines about spiders with activities for students in grade one. (Copies attached)

Submitted by

Name: Carolyn I. Gundrum

School: Waukazoo Elementary School

School Address: Holland, MI 49424

Email: twzcig01@westottawa.k12.mi.us