

GO TO SLEEP, GECKO!

First Grade

Outcome:

The students will learn about fireflies and luminescence.

Materials:

Map or globe, ruler, blackboard or whiteboard

Scrambled Sentences worksheet, pencil, paper, crayons

ABC Order worksheet

Build a Sentence worksheet

Short e Phonics worksheet

Glow in the dark light stick

Assortment of tropical fruits, knife, paper plates, napkins

3 ½ ounces rice flour, 2 T sugar, ¼ t salt, 3 eggs, 1 cup fresh coconut milk, 2 T oil, large bowl, whisk, stove, non-stick skillet, napkins, paper plates

Optional: How and Why Stories: World Tales Kids Can Read and Tell (Martha Hamilton and Mitch Weiss, August House 1999)

Wisdom Tales from Around the World (Heather Forest, August House 1996)

INSTRUCTIONAL PLAN

Introductory Activity:

1. Teacher writes each of these letters l, u, m, i, n, o, u, and s, on a sheet of paper that is large enough for all students to see.
2. Teacher chooses eight children to come to the front of the room as she scrambles the letters and gives one letter to each student.
3. Students stand in front of the room and display their letters.
4. The remaining students take turns trying to put the students in the correct order, to spell a word, using all of the letters.
5. Teacher may give hints to students as appropriate.
6. Teacher arranges the students to spell luminous, if students did not guess the word, and asks students if they know what the word means (emitting a light).
7. Ask students to name any animals or insects that are luminescent (fireflies, fish).
8. Teacher repeats above activity with the word nocturnal by adding the letters c, t, r, and a.
9. Ask students what nocturnal means (happening or active at night).
10. Teacher asks students to name animals that are nocturnal.
11. Students share facts they know about fireflies.
12. Teacher supplements with the following facts:
 - Fireflies are a type of beetle. Fireflies that glow are usually not found west of Kansas in the United States.
 - Fireflies range from 1/5 of an inch to 1 inch in length (show size with ruler).
 - Fireflies produce a cold light (not much heat is produced) by using special light organs on the underside of their abdomen. Just about 100% of the firefly's light is given off as light. A normal electric light bulb gives off only 10% of its energy as light; 90% is wasted as heat.

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Introductory Activity cont.:

- The rhythmic pattern they produce by flashing varies depending on their sex and species.
- Males flash about every 5 seconds and females flash about every 2 seconds.
- The brightness of a single firefly is about 1/40 of a candle.
- There are over 2000 species of fireflies and the greatest numbers of firefly species are found in tropical Asia, Central and South America. (Show countries on map or globe.)

Teacher Reading of Story:

Teacher informs class that they will be listening to a story from Bali (show Bali on map or globe) in which luminescence is very important.

Comprehension:

1. Where does this story take place?
2. What was Gecko's problem?
3. Why did he tell Elephant?
4. What did the fireflies say to Elephant?
5. What did Buffalo say to Elephant?
6. What did Rain say to Elephant?
7. Explain how the fireflies, the buffalo, the rain, and the gecko are all interconnected.
8. How does the story end?

Interpretation:

1. Why are the words luminous and nocturnal important to this story?
2. How did Gecko feel when Elephant told him to go home and go to sleep?
3. How did Elephant feel about being awakened?
4. How did Elephant's attitude change during the story? (Show illustrations each time he was awakened.)
5. When the fireflies explained why they blinked their lights, how did the elephant feel about their answer?
6. What lesson did Gecko learn?
7. What are some things that you have to put up with?
8. Explain what the elephant meant when he said the world is interconnected. Name some other ways that this is true.
9. How did the illustrator show luminescence in the pictures?
10. Choose another title for this story.

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Follow Up Activities:

- Drama

Balinese stories and folktales tried to explain things in nature that the Island's people did not understand. Their stories were also an important way to pass on the moral code of their society and show acceptable ways of getting along with others.

- What natural phenomena are explained by this story? (fireflies, interdependence of living things)
 - What social values are taught? (Caring, citizenship, tolerance, acceptance, fairness, respect, responsibility, and appreciation of the things we have.)
1. Divide the class into small groups.
 2. Create a skit to explain a natural phenomena, such as why snake has no feet, why roses have thorns, why rabbit has a short tale and long ears, why zebras have stripes, why cat's eyes glow in the dark, and why the moon changes shape. More story ideas can be found in How and Why Stories: World Tales Kids Can Read and Tell (Martha Hamilton and Mitch Weiss, August House 1999).
 3. Create a skit to show one or more of the character values taught in the story.

- Scrambled Sentences worksheet

Materials: Scrambled Sentences worksheet, pencil, paper, crayons

Directions: Write the sentences in the correct order to tell the story. Draw a picture to illustrate one of the sentences on another sheet of paper.

1. Gecko went to sleep.
2. Elephant told Gecko that you have to put up with some things.
3. The gecko could not sleep.
4. Gecko talked to Elephant.
5. Elephant talked to the fireflies.

- ABC Order worksheet

Materials: ABC Order worksheet, pencil

Directions: put the following words in ABC order:

gecko elephant firefly buffalo rain village road mosquitoes sleep bed

- Build a Sentence worksheet

Worksheet has 33 words that can be cut out individually.

Materials: Build a Sentence worksheet, pencil, paper

Directions:

1. Teacher divides the students into small groups.
2. Each group cuts the words out of 1 worksheet.
3. Students take turns creating sentences using only the words from the worksheet.
4. Students check each sentence and take turns writing down the group's sentences on a paper. Remind students that sentences start with a capital letter and end with a period.
5. Each group of students shares their sentences with the class.
6. Students then take turns trying to create the longest sentence possible with the words given.
7. Teacher asks students to name words that they wish had been included in the list provided (words that would have helped them make sentences). Teacher writes those words on the board.

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Follow Up Activities cont.:

Build a Sentence worksheet words:

gecko sleep elephant rain couldn't the awakened fireflies are flitting around my home make them the stop go house and called said is that thoughtful the night talk to eats mosquitoes in are

- Short e Phonics worksheet

Materials: Short e Phonics worksheet, pencil

Directions: Elephant and gecko both have the short e sound. Put an x on the words that have the short e sound. Write five (5) words that have a short e sound.

- Measuring

A gecko's size ranges from ½ inch to 14 inches. Use a ruler to measure and compare these distances.

- Demonstrate to the class how a glow in the dark light stick works. Most light sticks have 2 separate compartments with a different chemical in each one. When the stick is bent or cracked, the two chemicals mix and the stick glows. This is similar to how the firefly glows. In the case of the firefly, it is the oxygen the firefly breathes that combines with substances in the firefly's abdominal area that create the glow.

Extensions:

- Tropical Fruit Tasting

Materials: assortment of tropical fruits, knife, paper plates, napkins

Tropical fruits are an important part of the Balinese diet. Some children are allergic to tropical fruit, so please check with parents before the tasting. Bring several of the following fruits for a class tasting: papaya, star fruit, pink grapefruit, bananas, mango, oranges, coconut, passion fruit, pineapple, or lychee. Have the students rate each fruit on a scale of 1 to 5. Graph the results on the blackboard.

- Cook Coconut Pancakes

Materials: 3 ½ ounces rice flour, 2 T sugar, ¼ t salt, 3 eggs, 1 cup fresh coconut milk, 2 T oil, large bowl, whisk, stove, non-stick skillet, napkins, paper plates

Directions: Combine all ingredients in a large bowl. Stir well with a whisk until lumps dissolve. Strain batter through a strainer. Heat a non-stick skillet over low heat. Place 4 T of batter in pan to make very thin pancakes. Cool pancakes to room temperature.

- Read "Gluscabi and the Magic Bag Game," page 133, Wisdom Tales from Around the World (Heather Forest, August House, 1996). Compare and contrast this tale of ecological concerns and interdependence with Go to Sleep, Gecko!

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Name _____ Date _____

Scrambled Sentences

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1. Gecko went to sleep.
2. Elephant told Gecko that you have to put up with some things.
3. The gecko could not sleep.
4. Gecko talked to Elephant.
5. Elephant talked to the fireflies.

1.

2.

3.

4.

5.

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Name _____ Date _____

ABC Order

Directions: Directions: put the following words in ABC order:
gecko elephant firefly buffalo rain village road
mosquitoes sleep bed

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

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Name _____ Date _____

Build a Sentence

gecko	rain	flitting
couldn't	the	stop
fireflies	are	called
around	my	that
them	the	night
house	and	home
said	is	make
thoughtful	the	go
to	eats	talk
are	elephant	in
sleep	awakened	mosquitoes

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Name _____ Date _____

Short e Phonics

Directions: Elephant and gecko both have the short e sound. Put an x on the words that have the short e sound. Write five (5) words that have a short e sound.

eat eyes nest teeth bed keep mess step

