

## CHAIN REACTION -- FROM START TO FINISH

**MASTER TEACHER:** Jill Scott

**GRADES:** PRE-K 3 TO K

### OVERVIEW

In this lesson and its accompanying learning centers and rotation ideas, the students will have opportunities to experience cause and effect and chain reactions. Students will investigate different types of balls. They will be able to describe these balls as heavy, light, big, little, round, or oval. After viewing the story, *If You Give a Mouse a Cookie*, the students will sequence the chain reaction illustrated in the story. Students experience bowling with play pins and balls as well as examine a real bowling ball. The students will also recreate their own story that includes a sequence of cause and effect reactions. The students will make their own dominoes using blocks of wood, paint, and markers. This will provide opportunities for counting, number matching, and working with sets. Finally, the students will use dominoes to create their own chain reactions predicting what will happen and including varying difficulties.

*Note to the teacher:*

*These lessons are developed for very young children. They may be presented over several group times. Repetition and discovery are very important for young children.*

### ITV SERIES

*READING RAINBOW #1000*

*If You Give a Mouse a Cookie*

### LEARNING OBJECTIVES

Students will be able to:

- \*develop gross motor skills involved in rolling a ball
- \*describe different balls using the words heavy, light, big, little, round, oval
- \*sequence events that occur in a given chain reaction
- \*create an original chain reaction
- \*identify beginning and end of a chain reaction
- \*make their own dominoes using the dot sets
- \*predict outcomes

## **MATERIALS**

piece of chain - a chain with at least 5 links

Record or tape One Light One Sun

record player or tape recorder

bowling shirts - 2 or 3

several types of balls (baseball, volleyball, football, etc.)

1 bowling ball

10 pins

the book *If You Give A Mouse a Cookie*

sequence pictures and small symbols of events in book as (cookie, glass of milk, scissors, tape, book, colors. etc. enough for a group of 8 children

or *If you Give a Mouse a Cookie* Storytelling Kit in the Lakeshore Catalog LA3

story vest - Lakeshore Catalog

Velcro

bag full of dominoes

apparatus for domino chains as desired

dominoes as desired

ruler

blocks of wood - several for each student

paint - enough for 8 children at a time

markers - enough for 8 children at a time

bowling ball

1 cookie per student

icing - small can

sticks - one per student

1 jar of peanut butter

1 jar of jelly

2 slices of bread per student

1 plastic knife per student

## VOCABULARY

bowling

pins

bowling shirts

chain

circle

oval

heavy

light

big

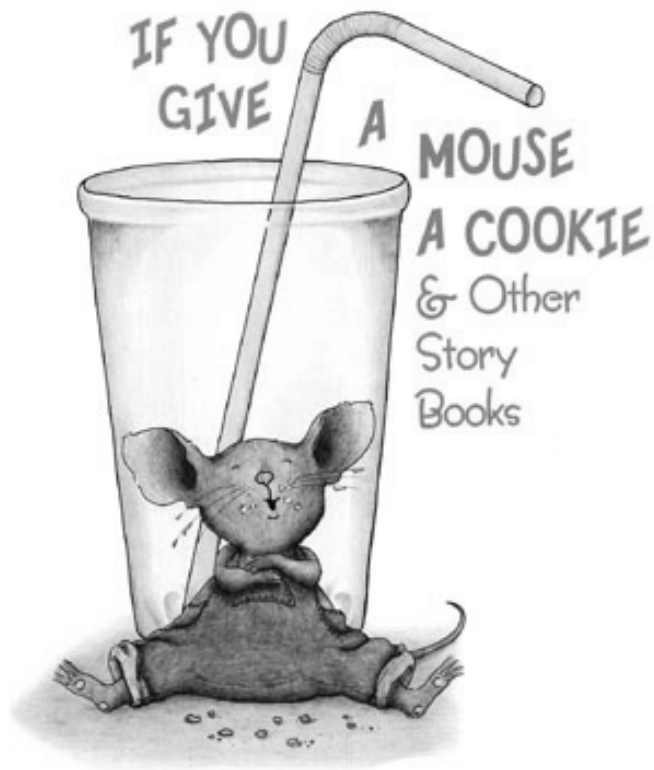
little

reaction

beginning

end

first, second, next



## SESSION ONE/DAY ONE

### PREVIEWING ACTIVITIES

Have students sitting on the carpet or in small chairs at the circle time area. Show them types of balls. Pass the balls around and discuss ways to use the balls. Allow students to touch each type of ball. Include a bowling ball. Discuss differences and similarities in the balls including heavy, light, big, little, round, oval. Help the students classify the balls as light, heavy, round, oval, big, little. Allow 5 minutes for discussion and classification.

### FOCUS FOR VIEWING

Explain to the students that on the video clip we are going to see a man who is using one of these special balls and that something very interesting will happen. To give the students a specific responsibility while viewing, ask them to watch the video and see which ball he is using and what is going to happen. Also, have the students look for something else in the video that is here in the classroom. (Be sure to have the bowling pin set out in plain view in the classroom).

### VIEWING ACTIVITIES

Begin viewing the video Reading Rainbow 1000 If You Give a Mouse a Cookie starting at the beginning where they are showing different people bowling. **Pause** when the narrator, Levar Burton says, "Hi, I Love the atmosphere here at the bowling alley."

Ask the class which ball they used. Discuss the name of the ball, the game, etc. See if anyone discovers the other object that is in the room that was seen in the video. (the bowling pins) Allow a student to bring the pins to the circle. Choose several students to set up the pins and roll the ball. Talk about what you do first, second, next. Give the students a specific responsibility while viewing by asking the students to see if the people on the video looked like their friends when they were using this ball. **Resume** video. **Stop** the video when Levar says, "Now one of the most important strategies in bowling...." Discuss the similarities and differences of the bowlers. Show a piece of chain. Describe the chain talking especially about the links being connected. Introduce the word "chain reaction". Ask the students to repeat the new word. To provide a specific focus for viewing say, "Now, we are going to watch our friend, Levar on the T.V. Listen carefully for our new word (chain reaction) and see what he tells you about a chain reaction." **Resume** the video where Levar has completed his bowling turn and says, "When you bowl, one

thing leads to another." **Stop** the video after Levar says "A chain reaction can start with anything."

Ask students if they heard the word "chain reaction". Discuss the chain reaction that was described. Illicit other chain reactions. Introduce the song 'The Bowling Song' from Raffi One Light One Sun. Play record. Tell students that at the dramatic play center there will be bowling shirts, the tape of the song, the bowling pins, and bowling balls. They can use these props to play and show the chain reactions.

### **POST VIEWING ACTIVITIES**

(Use if this is the end of your lesson, or use later as an extension)

Now that you have had the opportunity to see one chain reaction; you will be able to make your own chain reactions. In the Dramatic Play Center there are bowling shirts, a tape of our song, bowling pins, and bowling balls. You can use these materials to make your own chain reaction.

## **SESSION 2 OR CONTINUATION**

### **PREVIEWING**

Show book *If You Give A Mouse a Cookie*. "I have a special story about a friend of mine you had an interesting chain reaction happen to him one day at his house." (Teacher needs to have ready a story vest and real objects that correlate to the story. You can also use the commercial objects *If you Give a Mouse a Cookie* Storytelling Kit in the Lakeshore Catalog LA326)

### **FOCUS FOR VIEWING**

To provide a specific focus for viewing say "Let's watch this story and see if we can pick out the chain reaction and help my friend keep it in order."

### **VIEWING ACTIVITIES**

**Resume** or Begin video where Levar says, " In this book it all begins with one little cookie." **Pause** video after when he asks for a straw. Place the matching real objects onto your story vest in the correct order. Use Velcro to attach a real cookie, a glass of milk, and a straw onto a story vest or set on a table where all the students can see. Ask the students what the mouse got first, second, next. To provide a specific focus for viewing say, "Let's watch and see what the mouse

wants next." **Resume** video through next three items. **Pause** after broom. Have a mirror, small scissor, and play broom for students to sequence. Again, cue students to watch and listen for what happens next in our chain reaction. **Resume** video through where he reads a book. **Pause**. Sequence next items using a rag for cleaning, a pillow for bed, and a small book. Ask students what they think the mouse will ask for next. "What do you think he wants to do?" Accept all answers. **Resume** video. Play through next three activities **pausing** the video after the mouse asks for tape. Have the students sequence the next three events using crayons, pen, tape as props. Ask the students, "What do you think will happen when he looks at the refrigerator." "What do you think he will think about?" "What's inside the refrigerator?" If someone answers milk ask the student, "What do you think that will remind him of'." **Resume** the video. Play until the end of the story. Stop video at audio. "Oh, I know now! He will want to start all over." Discuss the chain reaction. What was first? What was last? Use the props for discussion.

### **POST VIEWING ACTIVITIES**

(Use if this is the end of your lesson, or use later as an extension)

Have the students use the props to retell the story to each other. Allow them to use the story vest and props. After they have practiced the story they can use the tape recorder or video camera to record their storytelling.

Have the students play a sequence game. Have one student put the props in the wrong order. Have him/her ask another student to correct the order. Continue in groups of three or four props at a time. Refer to the story for the correct order.

Discuss with the students how to make a peanut butter and jelly sandwich. Have the students draw the order they would use to make their sandwich. Provide bread, knives, peanut butter, and jelly for the students to try someone else's order to see what the results are. The teacher can try a few for examples.

### **THIRD SESSION OR CONTINUATION**

#### **PREVIEWING**

"I would like to show you one more type of chain reaction."

Have a set of dominoes in a bag. Shake the bag. Let students guess what is in the bag. Accept all answers. Let a student put his/her hand in and pull out one. Ask them what it is. Again, accept all answers.

## **FOCUS FOR VIEWING**

To provide a specific responsibility while viewing say, "Look for these objects in the video and find out what they are called and what we can do with them."

## **VIEWING ACTIVITIES**

View video (about 15 minutes into the segment where Levar says "In other games falling pieces can create...". Pause after he says this is a domino a block of wood painted black with white dots. Show dominoes. To provide a specific responsibility for viewing say, "Watch the T.V. and see some of the chain reactions that he can do with the dominoes." Resume video. Pause video several times to point out variations in the domino chains such as after the star, after jumping the gap, and after the word "domino". Continue the video until the narrator recaps the concept of chain reaction. Stop the video.

We are going to have a chance to make some chain reactions of our own in our centers. Explain different centers and allow students to make a choice as to where they would like to begin their work. Allow them to make a plan for the work time.

## **POST VIEWING ACTIVITIES**

### **CENTERS**

**Center one - Bowling center** as described above in Session 1.

**Center two - Puzzle Center** - Provide dominoes, some apparatus for tricks, hard surfaces, etc. for the students to experiment building a chain reactions.

**Center three - Art Center** - Provide small blocks of wood, paint, markers, and white sticky dots. Provide adult supervision to help with paint monitoring and to emphasize the concepts of numbers with the dots. Provide a set of dominoes for information purposes. Encourage the students to make their own dominoes. You may want to extend the concept using stickers of nouns or verbs to make matching dominoes.

**Center four - Listening station.** Provide the book *If You Give a Mouse a Cookie* and tape. Show the students how to use the listening station. Put the props used in the teacher directed session in this center. Encourage the students to use the props to sequence the events as they listen to the story. See Session 2 post view activities for more ideas for this station.

**Center five - Language center** -- Provide paper, pens, magazines, etc. for the students to write their own story. Have adult or older student monitoring to help stress the beginning, middle, and end of the story. Encourage the students to include a chain reaction in their story. Provide other books (suggestions in bibliography) in the center that include a chain reaction or repetitive line.

**Center six - Snack table** - Provide cookies, icing, sticks, and decorations for the students to create their own *Give a Mouse a Cookie Cookie*. Provide a rebus (picture directions) for directions.

## **ACTION PLAN**

For a real world extension, plan a field trip to a bowling alley. Have the students compose a letter to the bowling alley operator explaining some of the activities they have learned about bowling. Ask for a tour and an explanation of how the alley operates. An additional extension would be to have the bowling alley operator allow the students to bowl a game and count how many times the chain of events happens in each game. They can predict the number per student.

## **BIBLIOGRAPHY**

Numeroff, Laura Joffe, *If you Give a Mouse a Cookie*

Numeroff, Laura Joffe, *If you Give a Moose a Muffin*

Brett, Jan, *The Mitten*

Hutchins, Pat, *The Doorbell Rang*

## **EXTENSIONS**

### **Language arts**

Use other stories that have chain reaction story lines. Have the children illustrate these stories. Use their own illustrations to have the students tell the stories to other groups of children.

### **Health/Physical Education**

Have the students talk about leisure time activities. Make a list of sports or activities that grown-ups do and ones children do. Draw circle diagrams to show ones that both adults and children like to do. Have a bowler come and talk about bowling as exercise.

### **Social Studies**

Look into the history of balls and the kinds of games they are used in. This would be an interesting activity for the teacher to look up on the internet and show the students the pictures he/she retrieves from the internet.

## **INTERNET**

[CBC Online -- Children's Book Council](http://www.cbcbooks.org/) (learn about authors and illustrators of the books that we read) <http://www.cbcbooks.org/>