



## WINTER HOLIDAY CELEBRATION TEACHER GUIDES

Dear Assembly Coordinator and Teachers,

The following pages contain teacher guides to be used in conjunction with Prismatic Magic's Winter Holiday Celebration laser assembly and the Winter Holiday Celebration Student Worksheet Masters located on Prismatic Magic's Web site.

The teacher guides provide additional information about the laser show. They give ideas and suggestions for ways to tie the assembly into the curriculum for specific grade level ranges but you may use ideas from any age group you would like. All ideas are suggestions and may be used as deemed appropriate by individual teachers.

Sincerely,

Your Friends at Prismatic Magic



TEACHER GUIDE  
GRADES K - 2

*WINTER HOLIDAY CELEBRATION*

To increase the educational aspect of the laser program, this guide is to be used AFTER the performance.

## Language Skills

### **Parts of Speech**

Make a list of as many adjectives the students can think of to describe the show. If they haven't learned about adjectives yet, ask them how they would describe the show or the lasers or the performance. Make a list of all the nouns they saw during the performance in person or on the screen. What happened during the show? Make a list of verbs. How did those things happen? Make a list of adverbs. Have a contest to see which student or group of students can come up with the most adjectives, nouns, verbs, or adverbs.

Expand the lists to describe winter, snow, holidays, etc.

### **Writing**

Write about what happened during the performance. What was their favorite part? What did they like or dislike? What would they have changed? What songs would they have added or taken out? Depending on the students' writing level, have them write a sentence, a paragraph, or a story about the show. Or have them draw a picture and dictate a sentence or paragraph about what they drew.

### **Story Starters**

If I was a penguin, I would try to fly by . . . .

Winter is my favorite time of the year because . . . .

If I was alone for a holiday, I would . . . .

I was playing in the snow when . . . .

## Math

### **Basic Math Facts**

Make up some simple stories about the laser show that can be used to teach basic math facts. Examples:

- Snowmen were shown 2 times in one song and 3 times in another. So what was the total number of times snowmen appeared in the show?
- Three children in 2<sup>nd</sup> grade sang to *Frosty the Snowman*. Two children in 1<sup>st</sup> grade did not. How many more children sang to *Frosty the Snowman* than did not?
- Three classes watched the show. Two children in each class clapped along with every song. How many children clapped with every song?

### **Graphing**

Many bar graphs can be constructed about the performance. Choose a few songs from the performance and graph the popularity of each one. Which part of the show was the most popular - the music or the laser images? Graph it and find out.

## Art and Music

### **Art Skills**

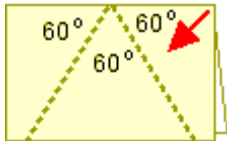
Have the students draw a picture of their favorite part of the performance. They can also decide what they would like to include in a laser show and draw that. Or have them think of their favorite song and draw a laser scene from it. Listen to music and have students picture how they could create the music visually. Then have them create it. The movies *Fantasia* and *Fantasia 2000* are excellent examples of this.

### **Six-sided snowflake**

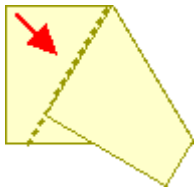
Snowflakes have six sides, but most of the time when we cut them from paper, they end up with eight sides. There is a simple way to fold a piece of paper that will make a six-sided snowflake. Follow the directions below and watch as the students create real six-sided snowflakes.



1. Fold a piece of paper in half.



2. Fold the paper into thirds. You can measure this out, but it is pretty easy to do by eyeballing it. Fold one side over as shown, then the other. Look at the pictures to see exactly what to do.



3. Cut off the edge of the paper in a curved shape.



4. This is what you should have left. Now cut this like you would normally cut the paper to create a snowflake. Carefully open the paper and see your six-sided snowflake!!

## Holidays

### **Traditions**

This is a great time of year to talk about traditions, either related to winter holidays or not. Talk about the different holidays that are celebrated in the winter and the traditions that go along with them. Which holidays do the students in the class celebrate? What foods are eaten to celebrate those holidays? What special things do the students do this time of year? Let them write about it, make a collage, make a play, etc.

### Your ideas

Go ahead and draw on your knowledge and skills to come up with any other activities. Relate the lasers to something you are teaching in any subject. Who better to come up with activities than you – the teacher!!





TEACHER GUIDE  
GRADES 3 - 5

*WINTER HOLIDAY CELEBRATION*

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## Language Skills

### **Parts of Speech**

Make a list of as many adjectives the students can think of to describe the show. Make a list of all the nouns they saw during the performance in person or on the screen. What happened during the show? Make a list of verbs. How did those things happen? Make a list of adverbs.

Expand the lists to describe snow, winter, Squeaky the Penguin, other penguins, etc.

### **Writing**

Write about what happened during the performance. What was their favorite part? What did they like or dislike? What would they have changed? What songs would they have added or taken out? Have the students write an informative article about the performance, an advertisement or brochure for the performance, a critique of the show, a persuasive argument for or against this assembly, etc. Have the students come up with a theme for their own laser show. What would it be? What songs would go with their theme?

### **Word Puzzles**

Give the students graph paper and let them create word searches, crossword puzzles, codes, etc., using winter words or phrases. Then let them trade puzzles with other students to see if they can solve them. As a class, create a giant puzzle on a piece of butcher paper and share it with another class.

### **How Many Words?**

Write a winter themed word on the board. How many words can the students come up with using only those letters?

Example word: *snowflake*

Words from *snowflake*: *snow, flake, flow, wake, woke, now, know, flaw, lake, snake, flank, lank, walk . . .*

## Math

### **Graphing**

Many bar graphs can be constructed about the performance. Choose a few songs from the performance and graph the popularity of each one. Which part of the show was the most popular - the music or the laser images? Graph it and find out.

What else can be graphed about the show? What was the most popular way that Squeaky the Penguin tried to fly? What other animal would the students have added to the show? The graphing possibilities are endless.

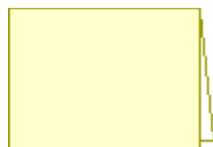
## Art and Music

### **Art skills with music**

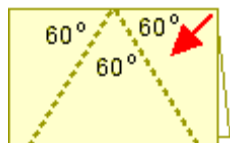
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### **Six-sided snowflake**

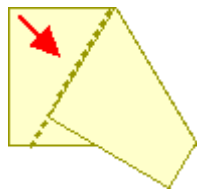
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## **Social Studies**

### **Holiday History**

Put the students into groups and have them research a different winter holiday – Hannukah, Christmas, Kwanzaa, New Year’s Eve, or any others. When did celebrations first begin? Why did they begin? What traditions are associated with each holiday? Are they celebrated differently in different countries? What other questions do they have about each holiday? Have students present their findings to the class in a creative way.

### **Personal Holiday Traditions**

This is a great time of year to talk about traditions, either related to winter holidays or not. Talk about the different holidays that are celebrated in the winter and the traditions that go along with them. Which holidays do the students in the class celebrate? What foods are eaten to celebrate those holidays? What special things do the students do this time of year? This can be more of their own personal, family traditions rather than general traditions celebrated nationwide. Let them write about it, make a collage, make a play, etc.

## **Your ideas**

Go ahead and draw on your knowledge and skills to come up with any other activities. Relate the lasers to something you are teaching in any subject. Who better to come up with activities than you – the teacher!!



TEACHER GUIDE  
GRADES 6 - 8

*WINTER HOLIDAY CELEBRATION*

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## Language Skills

### **Parts of Speech**

Make a list of as many adjectives the students can think of to describe the show. Make a list of all the nouns they saw during the performance in person or on the screen. What happened during the show? Make a list of verbs. How did those things happen? Make a list of adverbs. Have a contest to see which student or group of students can come up with the most adjectives or other part of speech to describe the show.

### **Writing**

Write about what happened during the performance. What was their favorite part? What did they like or dislike? What would they have changed? What songs would they have added or taken out? Have the students write an informative article about the performance, an advertisement or brochure for the performance, a critique of the show, a persuasive argument for or against this assembly, etc. Have the students come up with a theme for their own laser show. What would it be? What songs would go with their theme? Did Squeaky the Penguin add to or take away from the show? Were his attempts at flight plausible? What other ways could he have tried to fly?

### **Word Puzzles**

Give the students graph paper and let them create word searches, crossword puzzles, codes, etc., using winter words or phrases. Then let them trade puzzles with other students to see if they can solve them. As a class, create a giant puzzle on a piece of butcher paper and share it with another class.

### **How Many Words?**

Write a winter themed word on the board. How many words can the students come up with using only those letters?

Example word:  *earmuffs*

Words from  *earmuffs*:  *ear, ears, fear, fears, smear, mar, mars, farm, farms, fume, fumes, sure, fame, arm, arms. . . .*

## Math

### **Distance to the moon**

Lasers have been used to measure the distance from the earth to the moon. Can the students figure out that approximate distance with a few pieces of information? Speed of light, including lasers = approx. 186,000 miles per second. Time it takes a laser to travel to the moon, reflect off a mirror, and return to the earth = about 4 seconds.

$186,000 \text{ miles per second} \times 4 \text{ seconds} = 744,000 \text{ miles}$ . That number must be divided by 2 since the laser is traveling to the moon and back. That means the moon is about 372,000 miles from the earth.

## Science

### **Reflection**

Reflection is what makes the lasers move around during the laser show. A fun way to learn about reflection of light is to gather several small mirrors and a flashlight. Cover the flashlight with an opaque material with a small hole in it. This will allow only a small beam of light to shine from the flashlight. Have the students try to hit a target with the beam of light. The trick is that they have to reflect the light off of one or more mirrors before hitting the target. How many mirrors can they use and still hit the target? This can be done as a class or in small groups. Throw some math into the mix by having the students measure and calculate angles. Have them plan out a path for the light beam using precise angles and draw it on a piece of paper. Then let them set it up in the classroom and try it. Did they calculate the angles correctly?

## History

### **Laser History**

What do the students know about lasers? Who invented lasers? When were lasers invented? What else are they used for? Let them get on the Internet and search away! Have the students write a paragraph or make a poster about another use of lasers or a laser scientist.

## Social Studies

### **Holiday History**

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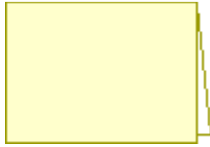
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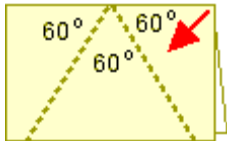
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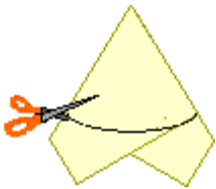
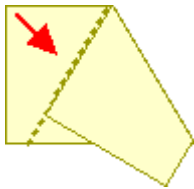
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## **Safety**

### **Precautions**

We take every necessary precaution to ensure everyone's safety during the show. It is not safe to shine any kind of laser directly into the eyes. Permanent damage may result. It is wise not to allow a laser to shine directly on any part of the body either as harmful radiation is emitted from a laser. You may want to emphasize that if lasers are used safely, they can be fun.

### **Your ideas**

Go ahead and draw on your knowledge and skills to come up with any other activities. Relate the lasers to something you are teaching in any subject. Who better to come up with activities than you – the teacher!!

