

# Light and Shadows

TEACHER PACKAGE

Thank you for booking a Teacher's Pet In-School Field Trip!



TEACHER'S PET™



In this package, you will find some key documents that will help you prepare for your upcoming fieldtrip. This package includes:

- ✓ Field Trip Form
- ✓ Checklist Letter
- ✓ Learning outcomes that will be explored during the fieldtrip
- ✓ Information Sheets about payments and volunteers

★ Please use the Checklist Letter as your guide as you prepare your classroom for our visit.

*Please note that all documents are copyrighted and any reproduction or distribution of these documents electronically or otherwise, in whole or in part, is strictly prohibited except for the purposes of this singular scheduled field trip.*

If you have any questions, please feel free to contact us at

- ★ 780 434 8224
- ★ 1-888-634-8738 for Calgary
- ★ Email: [fieldtrips@tpet.ca](mailto:fieldtrips@tpet.ca)

We are looking forward to visiting your classroom and engaging your students in an energetic and interactive learning experience!

Best wishes,

The Teacher's Pet Team



**No bus needed!**  
**We come to your classroom!**

# Light and Shadows

FOR YOUR INFORMATION

## Payments

Please note our Payment Policy:



1. You will be invoiced once the field trip has taken place. This invoice will be emailed directly to the accounts payable individual at your school.
2. Payments may be by cheque or credit card.
3. If paying by cheque, please make the cheque out to **Teacher's Pet Educational Services** and mail to:  
Teacher's Pet Educational Services  
11215-180 Street  
Edmonton, AB  
T5S 0B4
4. If paying by credit card, please call the office at:  
780 434 8224 (Edmonton)  
1 888 634 8738

Please note: We are an approved vendor in your school district.

## Volunteers

Volunteers are an integral part of your classroom and during this field trip. On your checklist letter and on the field trip form, you will find a suggested number of volunteers that are needed for this event. Please be aware that there may be components of this field trip where volunteers will need to read English. If this is difficult for some of your volunteers, we will try to place them at stations with little or no reading but this is not always possible.



## Student Booklets



Teacher's Pet is going green! We are committed to helping the environment in accordance with green initiatives undertaken within schools. We are currently in the process of reducing the length of or eliminating the student booklets that have been used in our field trips. We understand that photocopying costs are steep and excess paper usage is not good for the environment.

As change takes time, some our field trips will still have a reproducible student booklet this year. We thank you for your patience during this time of transition.

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IN-SCHOOL FIELD TRIP FORM

A Teacher's Pet Educational Services In-School Field Trip is visiting our classroom! Our students will have an opportunity to participate in interactive stations while learning several key components of the curriculum.

Here is brief outline of our learning adventure!

**Light and Shadows**

Your children will examine properties of light with Professor Light & Shadow! They will build a periscope, spin the colour spectrum, examine lenses and more in this illuminating interactive experience!



Date of presentation: \_\_\_\_\_ Time of presentation: \_\_\_\_\_

Cost: \_\_\_\_\_ Please return your payment for this event by \_\_\_\_\_

✂ -----

I hereby give my son/daughter \_\_\_\_\_ permission to participate in the Light and Shadows In-School Fieldtrip on \_\_\_\_\_ at \_\_\_\_\_ AM/PM.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Amount enclosed: \_\_\_\_\_

In order for your child to receive the maximum benefit from this field trip, we will require 3 volunteers to help out in station activities. Please arrive at least 15 minutes before the scheduled field trip time to receive instructions.

- I will be able to volunteer.  
Name/phone number: \_\_\_\_\_
- I am sorry, but I will not be able to volunteer.



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## CHECKLIST

The following is a checklist to help you prepare for this exciting event. We kindly recommend that this checklist is followed to ensure a smooth and productive field trip.



### Before the field trip:

- If it is your policy to send home a field trip form letter for in-school field trips, you are welcome to use the one included in this package. It has been provided for your convenience!
- 3 volunteers are required and they should arrive at least 15 minutes prior to the beginning of the field trip.
- Please photocopy the student worksheet found at the end of this teacher package (1 per student).

### Day of the field trip:

- Please organize your classroom in the following way:
  - 4 different stations will be set up in the classroom – one for each activity.
  - Desks arranged so that each student has a seat when at each station
  - Overhead projector available in the classroom
- Divide your class into four groups. They should be in these groups at the beginning of the field trip. If you have already decided how the students will be divided up, it will ensure a smooth transition.
- Please provide each student with a name tag and pencil.
- The Teacher's Pet representative will arrive approximately 20-30 minutes prior to the scheduled field trip to set up stations and talk to parent volunteers.

### During the field trip:

- Students will rotate through stations.
- The Teacher's Pet representative does not replace the classroom teacher. It is beneficial for the classroom teacher to roam freely to provide positive reinforcement and troubleshoot. This is a great opportunity to monitor and assess your students' learning!
- Since students are quite involved during the field trip, it is necessary for them to stay in for recess.

### After the field trip:

- Please fill out the online evaluation form found at <https://tpet.wufoo.com/forms/r7x3a7/> . Your input is very valuable and very much appreciated!

### Payment:

- Please refer to the Payment section included on the "For Your Information..." page for detailed information about our Payment Policy.

Please contact us if you have any questions or comments. Thank you for allowing us the privilege of visiting your classroom!

Best wishes,

The Teacher's Pet Team

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## LEARNER OUTCOMES

The following **Learner Outcomes** are explored to varying degrees within the 2 hour Grade 4 In-School Field Trip, Light and Shadows.

### *General Outcome*

*Students will:*

4-9: Identify sources of light, describe the interaction of light with different materials, and infer the pathway of a light beam.

### *Specific Learner Expectations*

*Students will:*



1. Recognize that eyes can be damaged by bright lights and that one should not look at the sun-either directly or with binoculars or telescopes.
2. Identify a wide variety of sources of light, including the sun, various forms of electric, flames, and materials that glow (luminescent materials).
3. Distinguish between objects that emit their own light from those that require an external source of light in order to be seen.
4. Demonstrate that light travels outward from a source and continues unless blocked by an opaque material.
5. Recognize that opaque materials cast shadows, and predict changes in the size and location of shadows resulting from the movement of a light source or from the movement of a shade-casting object.
6. Distinguish transparent materials from opaque materials by determining if light passes through them and by examining their shadows.
7. Classify materials as transparent, partly transparent (translucent), or opaque.
8. Recognize that light can be reflected and that shiny surfaces, such as polished metals and mirrors, are good reflectors.
9. Recognize that light can be bent (refracted) and that such objects as aquaria, prisms, and lenses can be used to show that light beams can be bent.
10. Recognize that light can be broken into colors and that different colors of light can be combined to form a new color.
11. Demonstrate the ability to use a variety of optical devices, describe how they are used, and describe their general structure.