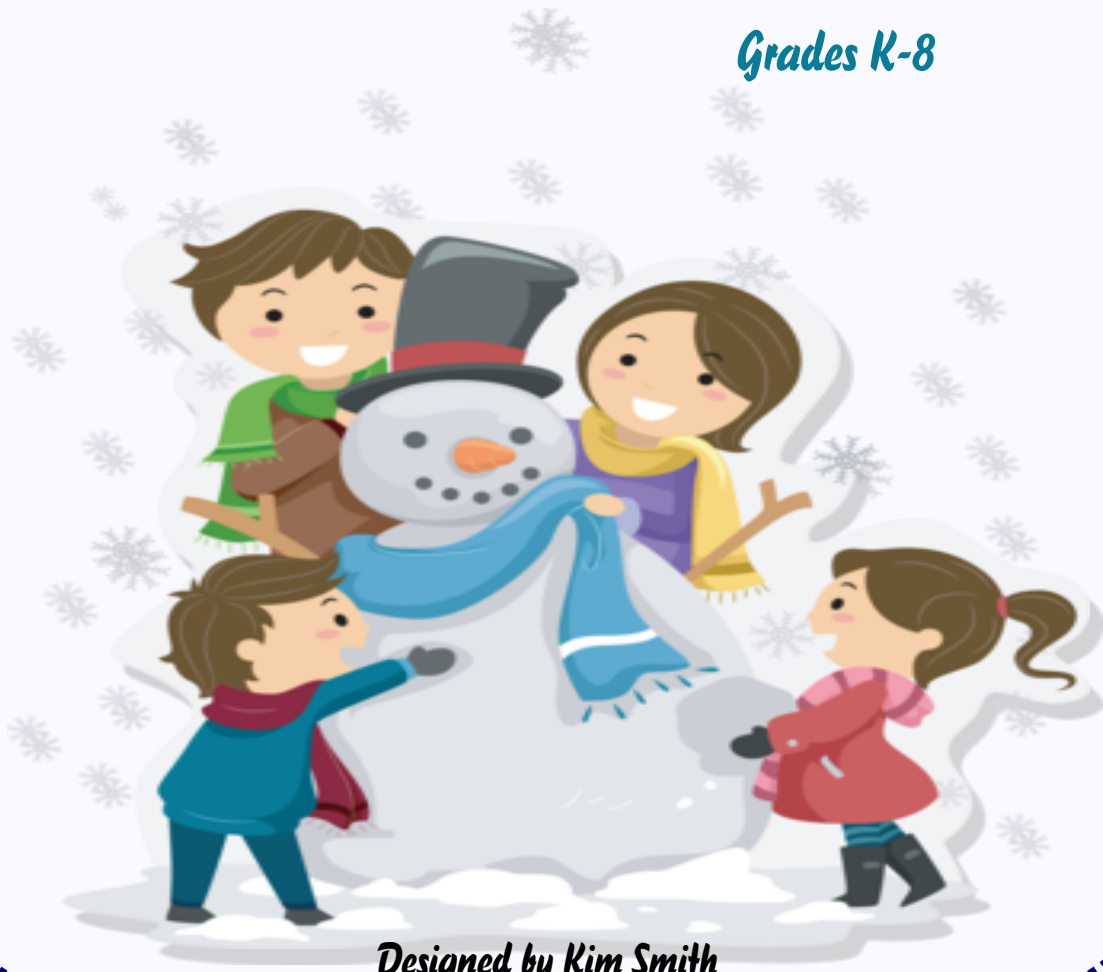


# The Wonder of Winter

*Grades K-8*



*Designed by Kim Smith*

The Wonder of Winter  
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Special thanks to Melissa Boucher. She is the author of the Study Guide that is included in this product. The Study Guide is being used with her permission and is now owned by Knowledge Box Central.

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## How do I get started?

First, you will want to gather your supplies. Depending on which format you purchased from us, you will need different supplies. So, take what applies, and skip over the rest.

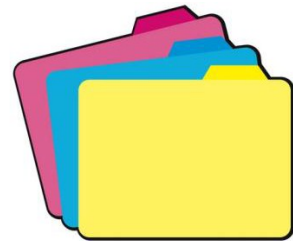
### \*\*\* Printing:

- \*Print instructions and study guide on **white copy paper**.
- \*Print the booklet templates on **24# colored paper**, unless noted otherwise.
- \***White cardstock**, where noted.



### \*\*\* Assembly:

\***Folders:** We use **colored file folders**, which can be found at Wal-Mart, Sam's, Office Depot, Costco, etc. You will need 3 file folders. You may use manila folders if you prefer, but we have found that children respond better with the brightly colored folders. Don't worry about the tabs.... they aren't important. If you prefer, you can purchase the assembled lapbook bases from our website.



\***Glue:** For booklet assembly, we use **glue sticks** and sometimes **hot glue**, depending on the specific booklet. We have found that bottle glue stays wet for too long, so it's not a great choice for lapbooking.



\***Other Supplies:** Of course, you will need **scissors**. Many booklets require additional supplies. Some of these include metal brad fasteners, paper clips, ribbon, yarn, staples, hole puncher, etc. You may want to add decorations of your own, including stickers, buttons, coloring pages, cut-out clipart, etc. The most important thing is to use your imagination! Make it your own!!



## **Ok. I've gathered the supplies. Now how do I use this product?**

Inside, you will find several sections. They are as follows:

1. **Student Instruction Guide:** This section is written directly to the student, in language that he or she can understand. These instructions will tell the student exactly how to assemble the lapbook base and how to cut out and assemble each booklet. Here, they will find a layout of where each booklet should be placed in the lapbook and pictures of a completed lapbook. They will also tell the student exactly what should be written inside each booklet as he or she comes to it during the study. However, depending on the age of the child, there may be some parent/teacher assistance needed.
2. **Booklet Templates:** This section includes all of the template pages and components for the booklets within this lapbook.
3. **Study Guide:** This section includes most of the information that you need to teach this subject. You may choose to teach directly from the Study Guide, or you may choose to allow your student to read the study guide himself, depending on the age of the child and their ability to understand the concepts. Either way, you will find all of the information here.

# **THE WONDER OF WINTER**

## **Base Assembly & Layout Guide**

You will need 3 folders of any color. Take each one and fold both sides toward the original middle fold and make firm creases on these folds (Figure 1). Then glue (and staple if needed) the backs of the small flaps together (Figure 2).

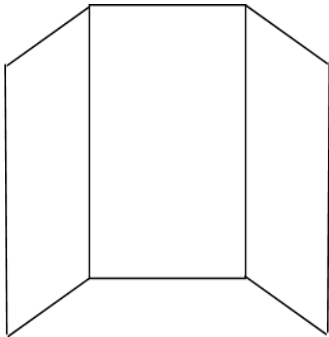


Figure 1

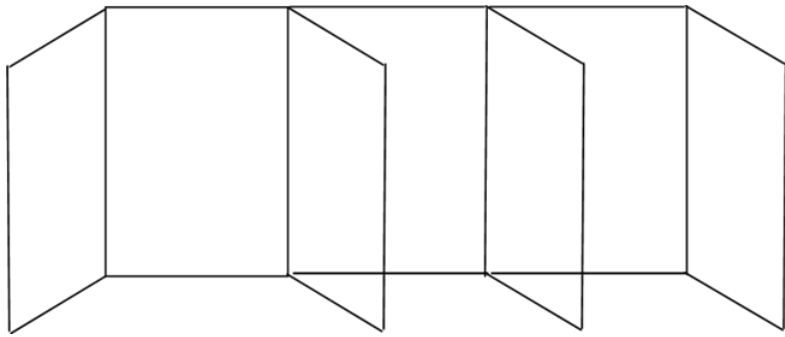
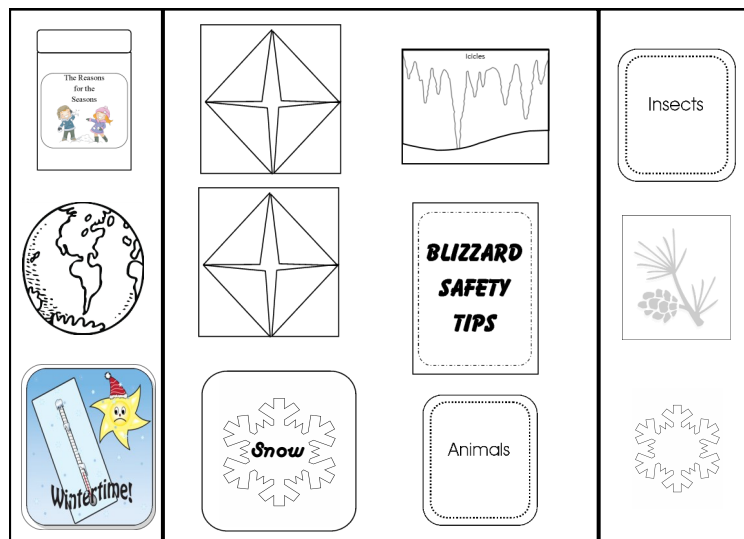


Figure 2

This is the “layout” for your lapbook. The shapes may not be exact on the layout, but you will get the idea of where each booklet should go inside your lapbook.

Inside of 1<sup>st</sup> Folder



# THE WONDER OF WINTER

## Base Assembly & Layout Guide

Inside of 2<sup>nd</sup> Folder:

The layout for the inside of the 2<sup>nd</sup> folder includes the following elements:

- Top Left:** A hexagonal card titled "Feeding the Birds" with a snowflake cutout below it.
- Top Center:** A pentagonal card titled "Indoor Activities" with a snowflake cutout below it.
- Top Right:** A rectangular card titled "Winter Coloring Book" featuring a snowman illustration.
- Middle Left:** A rounded rectangular card titled "Winter Activities" with an illustration of two children playing in the snow, and a "Snowman" cutout below it.
- Middle Center:** A card titled "Seasonal Food" with an illustration of a mug of hot chocolate and a snowman cutout.
- Middle Right:** A card titled "Notable Days" with a Christmas tree illustration.
- Bottom Right:** A card titled "Winter Sports" with a snowflake cutout and a blank space for notes.

Inside of 3<sup>rd</sup> Folder:

The layout for the inside of the 3<sup>rd</sup> folder includes the following elements:

- Top Left:** A snowflake cutout.
- Top Center:** A large rounded rectangular card titled "Winter Crossword" with a decorative border of snowflakes.
- Top Right:** A card titled "My Valentine" with a heart cutout and a space for a message.
- Middle Left:** A card titled "Winter Poetry" with a decorative border.
- Middle Center:** A crossword puzzle grid with a list of words below it:
 

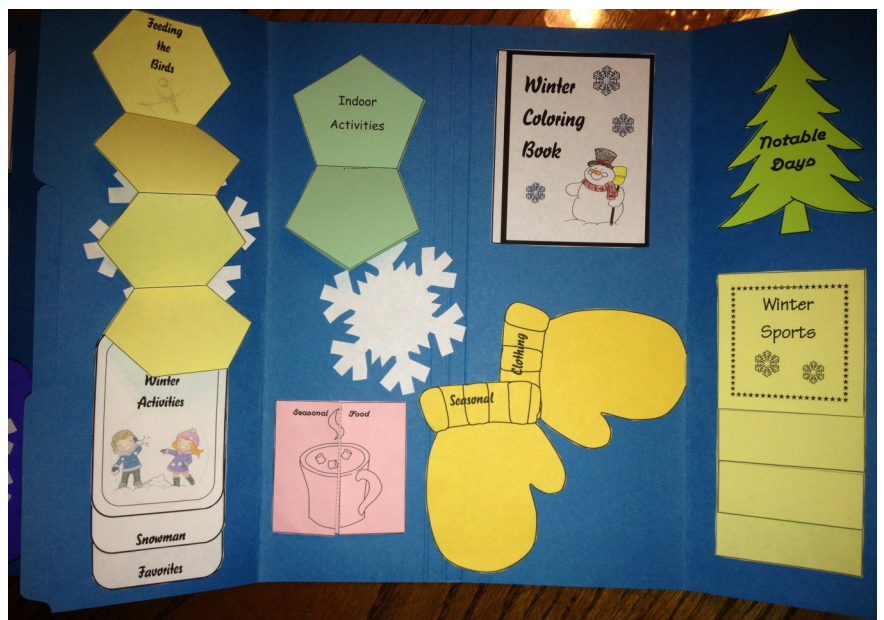
hibernation	hibernation	solstice	blizzard	snow
ice hockey	snowman	skating	skiing	snowman
slide	hot cocoa			
- Middle Right:** A card titled "Winter Recipe Book" with an illustration of children cooking.
- Bottom Right:** A card titled "Winter Stories" with a spiral notebook illustration.

Below are pictures of a completed lapbook! This should help in figuring out how to assemble booklets and how to put it all together. Please keep in mind that you can make your lapbook your own by doing booklets in any order and decorating your lapbook as you choose.

Folder 1 →



Folder 2 →

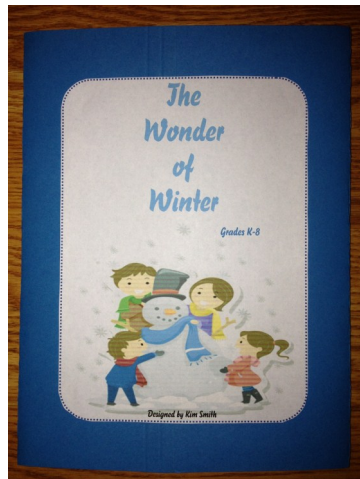




Folder 3



Completed Lapbook



← Optional Cover Page

*The Wonder of Winter*  
*Lapbook*  
**Student Instruction Guide**

## **Booklet #1**

**\*Booklet Title:** —Reason for the Seasons

**\*Student Instructions:** Answer the following booklet questions by writing your answers on the blank booklet pages.

1. Why does the earth have seasons?
2. Why is it winter in the northern hemisphere in December and January?

**\*\*Assembly Instructions:** Cut out along the outer black line edges of the booklet. Fold the bottom upward on black line. Fold tab at the top downward. This tab should overlap the bottom page to form a matchbook booklet.

Cut out along the black line edges of the booklet pages. Attach the page with the picture to the front of the booklet using glue. Attach the remaining pages to the inside of the booklet at the top using a staple. Attach to lapbook using glue.

## **Booklet #2**

**\*Booklet Title:** —Winter Solstice

**\*Student Instructions:** Color the Earth on the front of the booklet. Shade the picture to illustrate what a Winter Solstice looks like. Then answer the following questions on the blank pages of the booklet:

1. What happens during the winter solstice?
2. What is the approximate date of the winter solstice each year in the northern hemisphere?

**\*\*Assembly Instructions:** Cut out along the outer black line edges of the booklet, being careful not to separate circles. Attach to lapbook using glue.

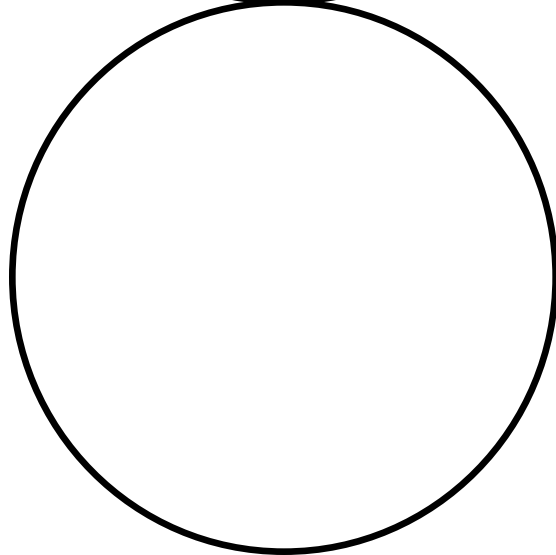
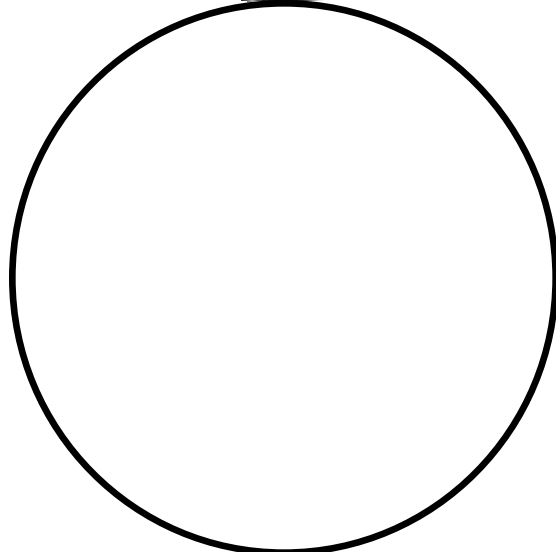

## The Reasons for the Seasons



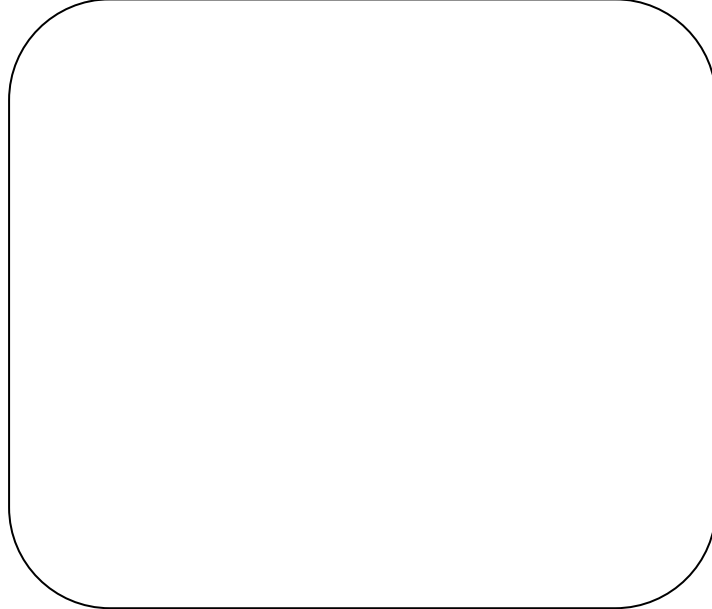
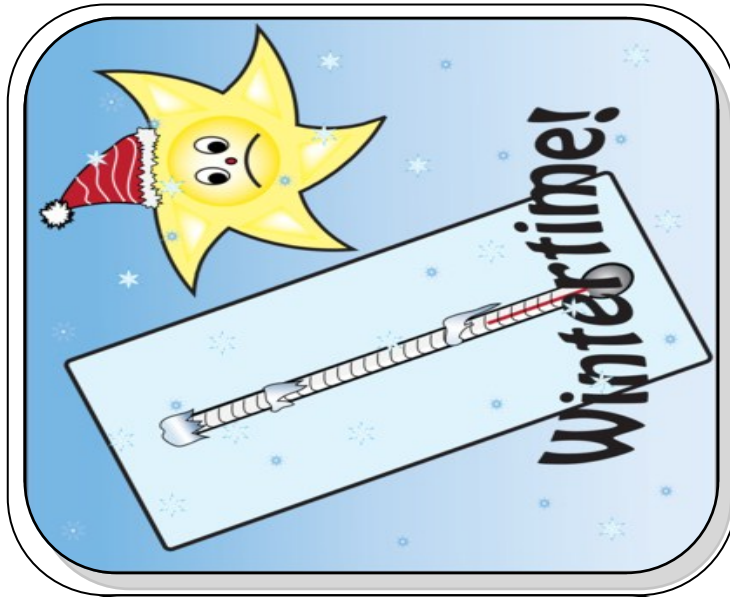
Why does the Earth have seasons?

Why is it winter in the northern hemisphere in December and January?

# Winter Solstice



Environmental Changes-Day & Night Temperatures



# *The Wonder of Winter*

## *Lapbook*

### **Study Guide**

#### **The Reason for Seasons**

The Earth is always in motion, spinning around the Sun. It takes 365 days for Earth to go around the Sun once. As the Earth spins, it tilts a little to the side. Consequently, the portion of the Earth tilting toward the Sun gets more sunlight and warmth. Since the Earth is always moving, different portions tilt toward the Sun at different times of the year. This is the reason for the changing seasons.

In December and January, the northern hemisphere is tilting *away* from the Sun. Therefore, it is winter. Alternately, the southern half of the Earth has summer in December and January, when that section of Earth is tilting *toward* the Sun.

#### **Winter Solstice**

The shortest day of the year in this part of the world is December 21st. This day marks the beginning of winter and winter solstice. After December 21st, the days will begin to grow longer, giving about two extra minutes of sunlight each day. However, the cold temperatures and possibility of snow will remain for much longer.

#### **Changes to the Environment**

##### **Day and Night and Temperatures**

Winter is marked by very short days and long, dark nights with mostly frigid temperatures. Shorter days mean less sunlight, which cause temperatures to stay colder longer. January is generally the coldest of months. Come March, winter is ending and signs of spring are beginning to appear everywhere. As the days become longer, temperatures then begin to warm up due to more sunlight.

## **Frost**

There is invisible water in the air at all times called water vapor. In winter, when the temperature dips below freezing, these drops of water vapor change to ice crystals and form a fine layer on every outdoor surface, such as the ground or on the needles of a pine tree. This is called frost. Come morning, extra caution may need to be taken because frost may make sidewalks and roadways slippery. These ice crystals may need to be scraped off of car windows, and cars may need to run for several minutes before driving them in order to warm up the engines.

## **Snow**

Snow may occur when it turns very cold. Very tiny drops of water in the clouds freeze into ice crystals. These ice crystals join together to form snowflakes. The snowflakes then fall to the ground. If the temperature is cold enough, the snowflakes will not melt once they hit the ground. Snow will then pile up and cover the ground and other outdoor surfaces like a beautiful white blanket.

Every single snowflake is different; however, each one has six points to its design. Under a microscope, the unique design and detail of a snowflake is clear and visible.

## **Icicles**

Icicles form when drips of melting snow freeze. In the sunlight, icicles look like glittering glass wands hanging from house rooftops. Many people enjoy snapping off hanging icicles and eating them like winter popsicles.

## **Snowstorms and Blizzards**

In the northern part of the world, snowstorms are a common occurrence. However, when strong winds and freezing cold follow the snow, the snowstorm becomes a blizzard. Blizzards may cause large amounts of snow to pile up. These snow drifts may cause road blocks, falling electrical lines, and school closings. Many people may not be able to get to work until the blizzard ends and the snow is cleared away.

The National Weather Service defines blizzards as: large amounts of falling or blowing snow, with winds in excess of 35 mph, and visibilities of less than  $\frac{1}{4}$  of a mile for a period of more than 3 hours.

Blizzards that occur on the East Coast of the United States are known as Nor'easters. Because of the Atlantic Ocean, the storm stalls over the coast and can sometimes last for 24 hours, dumping huge amounts of snow over the area.

In 1888, two legendary storms occurred. The Schoolhouse Blizzard occurred across the Great Plains, stranding children in their schoolhouses. About 235 people died in this blizzard. Many of those were children that tried to walk home from school.

*Important safety tips about blizzards:*

- *If you are located in an area where blizzards occur, you should make sure you have extra **food and supplies**. Some supplies include: a radio with extra batteries, candles, a cell phone, and lots of blankets. You should also plan on staying inside. Many times, children playing right outside of their homes have gotten lost in the blinding snow.*
- *If you are ever caught in a car during a blizzard, it is best to **stay** with the car. Many people have walked in circles, because they couldn't see where they were going in the blinding snow.*
- *Blizzards also create a wind chill effect that can be dangerous. The blowing winds and low temperature can cause **frostbite** and/or hyperthermia.*
- *If you are ever lost in a blizzard, try to keep from eating **frozen snow**. Eating snow lowers body temperatures, which could cause hypothermia more quickly.*

## **Changes to the Natural World**

### **Animals and Hibernation**

In the northern parts of the world, where snow and ice cover the ground, some animals may spend the winter in a long, deep sleep until spring. This sleep is called hibernation. Mice and squirrels burrow down together in holes to keep warm and eat the food they have stored from the fall. Hedgehogs hibernate in a nest made from leaves, moss and grass. Snakes and turtles also find a warm hole to rest and keep warm. Bears and bats rest for the winter in caves. Bears do not sleep deeply though, and may come out to wander around before returning to their caves for more rest.

Rather than hibernate, rabbits and foxes grow a thicker coat of fur to keep warm. Since food is difficult for these animals to find in winter, foxes may venture into more populated areas to scavenge in trashcans for food. Since rabbits are prey for many larger animals, their thicker coat of fur may change color from brown to white in order to camouflage better in snowy areas. Even our pet dogs and cats will grow a thicker coat of fur in the winter.