



The InvestiGator Club™ Prekindergarten Learning System

Investigation

TEACHER'S
EDITION

Integrated Activities for Exploring, Experimenting,
and Making Discoveries

Sensational Seasons

This Investigation celebrates the uniqueness of the four seasons. Each new season brings different sights and sounds for children to explore: the howling wind and crackling of colorful leaves in fall; cold temperatures and glistening snow in winter; baby birds, bugs, and colorful blooms in spring; and the blazing sun in summer. The four seasons provide many investigating opportunities for the InvestiGators and for children, too. Let's investigate the sensational seasons!

Part 3 Winter Wonders

Remind children that they have been learning about the four seasons—fall, winter, spring, and summer. They already have learned about summer and fall, and now winter begins. Tell children: *During this Investigation, we will learn all about the season called winter. We will discover the special changes that happen during wintertime that make this season sensational too. Who is ready to start investigating?*

Oral Language/Science/ Music

Children get ready for a change in seasons by recognizing the signs of winter.

Materials

- barren tree branch
- chart paper, marker

All About Winter

Display a barren tree branch as children gather. Explain: *When the InvestiGator Club took a walk through Circle Forest to go to the clubhouse, they noticed that the trees all looked like this. Can you tell the time of the year by looking at this branch?*

- Reinforce the concept that trees lose their leaves when winter comes. Invite children to talk about winter. Ask: *Can you think of other signs of winter?* Make a list as children suggest ideas such as cold weather, dark skies, frost, snow, ice, mittens, hats, boots, scarves, snowmen, ice skating, and sledding.
- Teach children the following song to the tune of "Frère Jacques." Have them hold hands and circle around as they sing.

*Winter's coming. Winter's coming.
This I know. This I know.
Days are getting colder.
Days are getting shorter.
Cold winds blow.
Here comes snow.*

- Winter is not the same for children everywhere. You might want to visit your library to check out and read aloud one of the following books:

When Winter Comes by Nancy Van Laan
Winter Lullaby by Barbara Seuling



**Mathematics/
Oral Language**

Children sort wintry objects and arrange them by size.

Materials

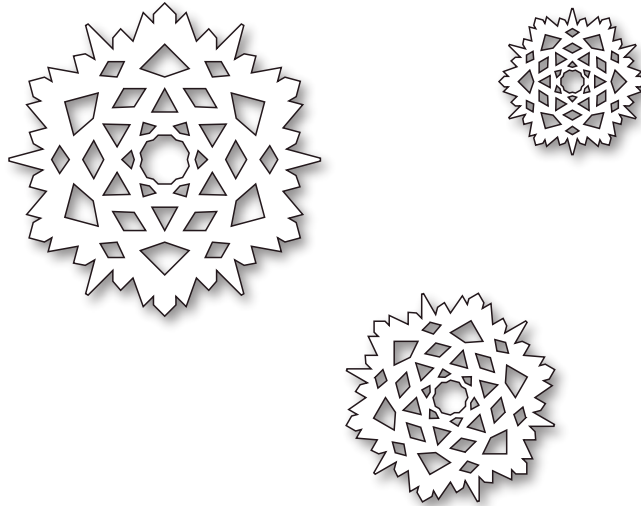
- construction paper
- scissors
- markers
- Measuring Winter Activity Sheet for each child

For 3-year-olds

To simplify, give a child just two shapes to compare and identify as *biggest* and *smallest*.

Measuring Winter

Beforehand cut sets of three wintry objects in different sizes, such as snowballs, snowmen, snowflakes, hats, boots, mittens, and scarves. Explain: *Chuck Wood loves to measure things. He measures when he builds things. He measures things to sort them by size.*



- Mix and display all the cutouts. Pick up an example of each one for children to identify. Then have children work in small groups to sort the shapes.
- Once the shapes have been sorted, play a game. Have children take turns choosing one set of three shapes. Ask the child to name the shape and show which one is the smallest and which one is the biggest. Then have the child arrange the three from smallest to biggest.
- Ask if the other children agree with the arrangement. Then have another child repeat with a new set of shapes.
- Reproduce the Measuring Winter Activity Sheet for each child. Tell children to take the activity home. They will look at the three shapes in each row and color either the smallest or the biggest. Send a note home telling parents to read the directions to children and return the activity to school in one or two days.

**Oral Language/Music/
Mathematics/Fine Motor
Skills/Literacy**

Children build a snowman with paper circles and sing about their wintry friend.

Materials

- picture of snowman (optional)
- white drawing paper
- scissors
- construction paper
- glue
- markers or crayons

ELL

As you sing the snowman song, use gestures to point out body parts, positions, and actions.

Build a Snowman

Tell children: *Great Auntie Lu is a wonderful artist. She is especially good at making sculptures. Great Auntie can make any kind of shape using clay, wood, sand, or even snow!*

- Ask how many children have ever made a snowman. If you live in an area that does not get snow, show a picture of one.
- Provide children with scissors and copies of three different-sized circles on white paper. Have them cut out the three circles to build a snowman.
- Children can paste the circles on colored construction paper. Guide them to place the circles by size, putting the biggest circle on the bottom and the smallest circle on top.
- Next they can use markers or crayons to add eyes, nose, mouth, hat, scarf, and branches for arms with mittens on the ends.
- Teach children the following song about building a snowman. Sing to the tune of "Yankee Doodle." Invite children to point to each part on their creation as they sing.

*I roll a big, big ball of snow.
I make it nice and round.
I will build a big snowman.
I'll put it on the ground.*

*A second ball not quite as big
Is placed right on the top.
I still need one more ball to go
So I cannot yet stop.*

*Now I roll the smallest ball.
It will be the head.
I add two eyes, a nose, and mouth.
I'll use a scarf that's red.*

*I'll add two branches for his arms,
A mitten on each end.
I'll put a hat upon his head.
Now meet my snowman friend!*



- Say pairs of words from the song. Ask children to identify which word pairs rhyme and which do not. Start with these: *round/ground, head/red, ball/mouth, top/stop, big/go, end/friend.*
- Children might enjoy hearing a story about a snowman friend. Look for these classics in your library:

The Snowy Day by Ezra Jack Keats (This book is also part of The InvestiGator Club Weather Watchers Investigation.)

The Snowman by Raymond Briggs (This book is wordless, so invite children to tell the story in their own words.)

Science/Oral Language/ Movement

Children discover what skating on ice is like.

Materials

- metal pan
- small toy people figures
- real ice skates or photo of ice skates
- mittens or scarves
- recording of "skating" music



Skating Rink

Explain: *Dilly and her brother JT like to investigate to see what happens when water gets very, very cold. Ask children if they know what happens when water freezes.*

- Fill a metal pan with water, and place it in a freezer. Talk about what will happen to the water after a while. Have children guess how long it will take before the water freezes and turns into ice.
- Once the ice forms, have children examine the ice. Have them feel how cold and slippery it is.
- Have children take turns pushing toy figures across the pan of ice to mimic a skating rink. Ask if children have been to a real skating rink and what it was like. Show children what ice skates look like. Use a photograph or real skates if available. Explain how people glide across the ice.
- Play skating music. Have children glide around in a circle as if at a rink. Provide mittens or scarves for children to wear.
- Look for *Ice Is...Whee!* by Carol Greene in your library.

Science/Movement

Children mold one another into imaginary ice sculptures.

Materials

- recording of music

Ice Statues

Explain that JT likes to learn about places all over the world. He has learned that some places on his globe get cold enough to have lots of ice and snow. In these places, people carve ice statues outdoors.

- Have children pretend they are outdoors in one of these very cold places.
- Have children work with a partner. One child can mold the partner into an ice statue by positioning the body, arms, head, and legs.
- Ask each child to explain what his or her ice statue shows. Then play music and have children dance with their statues as they remain "frozen."
- When the music stops, have the statues "melt" and become human again.
- Then have partners switch roles and repeat the activity.

Children play a mitten-matching game.

Materials

- construction paper
- scissors
- markers
- objects that come in pairs
- Matching Mittens Activity Sheet for each child



Matching Mittens

Beforehand cut pairs of mittens from different colors of construction paper. Use markers to draw unique designs on each pair. While children are out of the classroom, place one mitten from each pair in plain view. When children return to the room, begin the game!

- Discuss the concept of pairs by showing children objects that come in pairs such as shoes, socks, gloves, and mittens. Talk about why it is a problem when one of the two items is missing from a pair.
- Explain: *Bruno Buzzbee is great at helping the other members of the InvestiGator Club find things they have lost because he can fly above and look down. Let's see how good you are at finding things.*
- Show one mitten from each pair to children. Ask: *What color is this mitten? What shapes do you see on it? Who thinks they can find another mitten just like this one?*
- Repeat with each mitten. When each child has a mitten, say:
*One, two, three.
Be a busy bee.
Find the missing mitten
That's like the one you see!*
- Tell children to walk around the room to look for their missing mitten. Once it's found, have them return to the circle.
- Reproduce the Matching Mittens Activity Sheet for each child. Have children finish drawing the second mitten in each pair to match the first mitten. Then have them color each mitten in a pair the same color.
- Look for the following books about mittens in your library.
The Mystery of the Missing Red Mitten by Steven Kellogg
The Mitten by Jan Brett

Children use sponge paint to create snow scenes.

Materials

- blue or black construction paper
- small sponges
- clothespins to hold sponges (if desired)
- white tempera paint, paint trays
- paper towels
- tagboard cutouts of houses, trees, animals, people

Snow Scenes

Beforehand cut basic shapes such as houses, trees, animals, and people from tagboard. Make them large enough so children can place them on construction paper and sponge paint around them.

- Tell children: *Great Auntie Lu taught Dilly and JT how to paint using sponges. They thought it was great fun and you will too!*
- Show each shape to children, and ask them to identify what it is. Then explain that you will use the shape to do an art project.
- Demonstrate how to place the cutout in the center of a sheet of black or blue construction paper and hold down the shape with one hand. With the other hand, show how to dip a sponge into white paint, wipe off the excess paint on paper towels, and then sponge paint on the construction paper around the cutout. Remove the cutout; the shape appears to be in a snowstorm.
- Have children make their own snow scene following your directions. Give help as needed.
- Children might work better in pairs. One can hold the cutout while the other child sponge paints.



Children observe and chart
winter feeding habits of birds.

Materials

- pine cones
- sticks
- peanut butter
- plastic knives
- bird seed
- needles and thread
- popcorn
- cranberries
- fruit slices
- bird books
- For the Birds Activity Sheet
for each child
- crayons or markers

For the Birds

Explain to children that the members of the InvestiGator Club like to observe birds. They see birds by the water, in the forest, and in the city. Birds must hunt for their own food every day. During winter, birds especially need our help to find food.

- Talk about the kinds of foods birds like to eat, such as seeds and fruit.
- Invite children to help spread peanut butter on pine cones and roll in bird seed, string cranberries and popcorn, and put fruit slices on sticks.
- If there is enough snow where you live, have children build a snowman and decorate it with accessories made from food. If there is no snow, set up a bird-feeding station. Place food for the birds in an area where you know they will feed and where children can observe without disturbing them.
- Have children observe the birds that come to feed each day and what they eat. Make bird books available for children to use to identify the birds they see.
- Reproduce the For the Birds Activity Sheet to provide children with a way to record their observations. Read the chart with children and explain that every day they should watch for birds. Tell children to draw a picture of one bird they see each day and draw what the bird eats. Then they can describe what they have seen.
- If you want to continue the activity for more than one week, reproduce additional charts.
- You also might want to share the book *Have You Seen Birds?* by Joanne Oppenheim with children.

Children learn and sing about
Groundhog Day.

Materials

- pictures of animals that hibernate
- large carton that a child can fit inside
- flashlight

Groundhog Day

Explain to children that Chuck Wood is special because he belongs to a family of animals that sleeps during the winter. Say: *Now we will learn more about animals that sleep in winter and what happens on a day called Groundhog Day.*

- Name animals that sleep or hibernate during winter. Show pictures of these animals if available. The list might include gophers, bees, bats, frogs, snakes, chipmunks, wasps, and groundhogs (also known as woodchucks).
- Then explain what February 2, or Groundhog Day, is all about. Share the folklore: The groundhog comes out of his burrow. If he sees his shadow, he is scared and runs back in—and there will be six more weeks of winter. If he does not see his shadow, an early spring is on its way.
- Teach children the following song to the tune of “I’m a Little Teapot.”

*I’m a little groundhog, living in the ground.
I wake up and take a look around.
If I see my shadow, I hide away.
Six weeks of winter are here to stay.*

*I’m a little groundhog, living in the ground.
I wake up and take a look around.
If I see no shadow, I will stay.
Spring is early, so I can play.*

- Place a large carton in the center of the room. Have children take turns being the groundhog while the others sing the song. Have the child pop out of the carton during the first verse. After the first verse, the child hides inside again. After the second verse, the child climbs out.
- Create a shadow during the first verse by aiming a flashlight at the child. During the second verse, use bright overhead lights to eliminate the shadow.



Name _____

Measuring Winter



Color the **smallest**.



Color the **biggest**.



Investigation: Sensational Seasons/Part 3

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Name _____

Matching Mittens

Look at the first mitten. Make the second mitten look the same.
Color both mittens the same color.



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Name _____

For the Birds

Watch for birds each day. Draw what you see.

Day	Bird I See	Food It Eats
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

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