

# Penelope Polkadot

## ABOUT THE BOOK

*If each snowflake is unique, what else should I know about them?*

Penelope Polka Dot has a gazillion questions. When the first snowflakes fell from the sky, she wore her new winter clothes and ran outside. Knee deep in the fresh snow, her curiosity got the best of her. Her dad had told her that each snowflake is unique. As they landed on her mittens, she could see how different they were. How could that be? Maybe they had other secrets that she did not know? She wondered what else she might discover. Suddenly, she threw her head back, opened her mouth wide and struck out her tongue. What do you think happened next? Was she surprised? Did she find the answers she was hoping to find?



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Penelope is here to put teachers and students alike in a J-O-Y-F-U-L learning space!

This guide is filled with book-specific activities, aligned with Core Curriculum Competencies, such as the use of language to create and share ideas, feelings and opinions and preferences. You will find integrated learning sure to make your classroom a stupendous and fantastical learning environment!

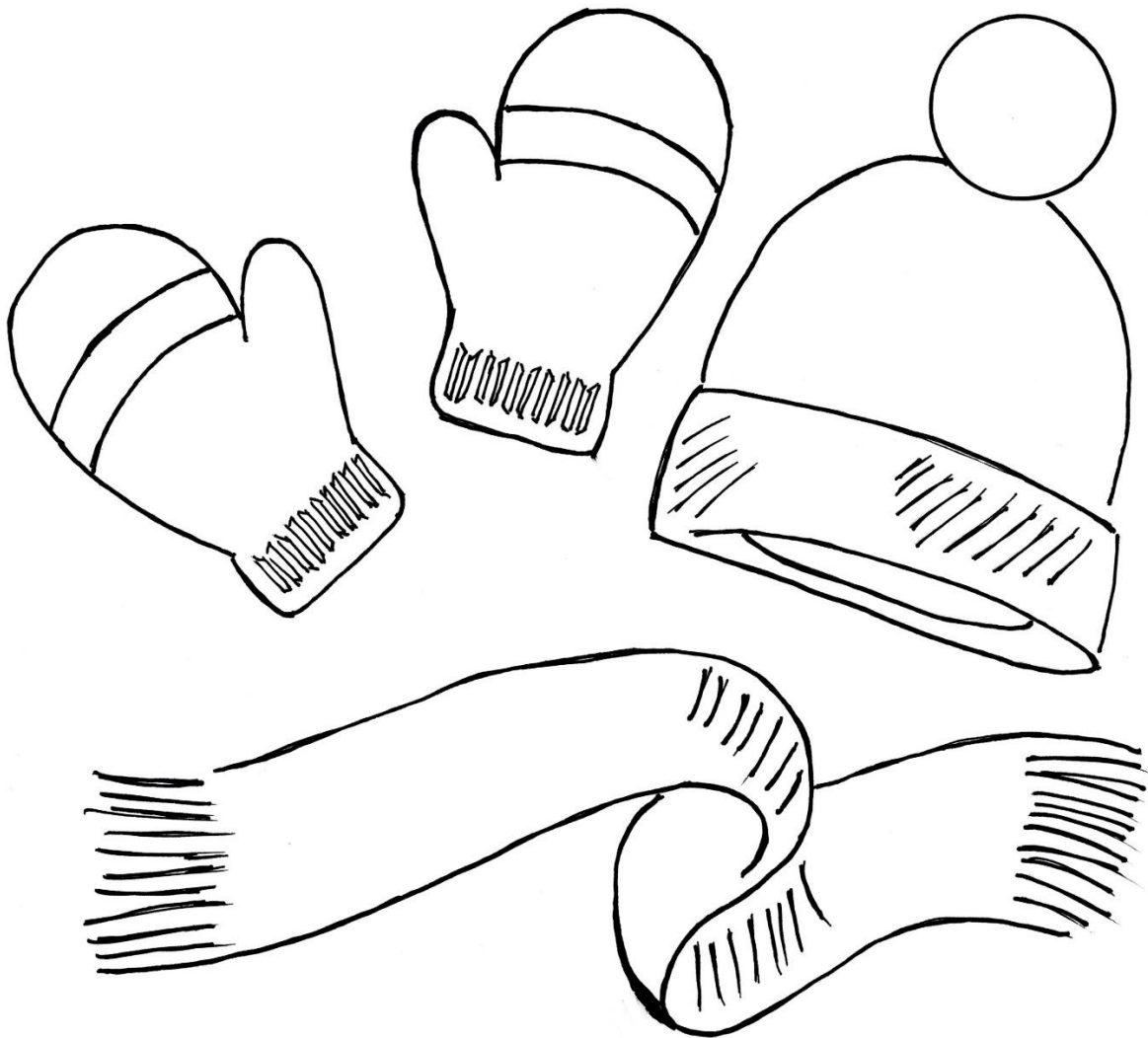


**KARA MEKO DESIGN**  
[www.penelopepolkadot.com](http://www.penelopepolkadot.com)

# DESIGN YOUR MITTENS, TOQUE AND A SCARF



Penelope loves the mittens, toque and scarf her Nana knitted for her. The set is far from plain. Have students draw their face on a white piece of paper. Next, have them decorate their portrait with a colourful scarf, toque, and mittens they would wear with pride.



## CORE CONNECTIONS

### Communication

The ability to interact and share, acquire, transform ideas and information, and make connections by expressing their individuality, furthering their learning, and getting things done. It is fundamental to finding satisfaction, purpose, and joy.



## Ice cream survey

### In What Do Snowflakes Taste Like?

Penelope wonders if snowflakes tasted like vanilla, cherry, strawberry, or pistachio ice cream. Have students do a survey in class after reading the book to find out what their favorite flavour is. Come up with as many flavours as possible and build a graph by adding scoops to cone illustration as the results come in. Watch the towering cones grow. To celebrate, have an ice cream party.

### Thinking

Knowledge, skills, and processes associated with intellectual development permit students to take subject-specific concepts and content and transform them into a new understanding. This includes specific thinking skills, habits of mind, and metacognitive awareness to process information from various sources, including thoughts and feelings at a subconscious or unconscious level to create new understandings.

## Your Taste Buds

For many years, the classic taste map experiment indicated that there were taste areas on the tongue for salt, sugar etc. It was based on faulty science! There are no specific areas on the tongue for detecting salt, sugar, or sour tastes. Our sense of taste comes from taste buds or papillae found on the tongue, the epiglottis, and the soft palate in our mouth. Sensitivity to tastes is present all over the tongue, with a stronger sensation in different areas due to the number of papillae. We can detect five taste sensations: sweet, sour, bitter, savoury, and salty. Food taste comes from a mixture of signals sent to the brain from these papillae. Our sense of taste that we take for granted serves to help us decide if what we eat will be nutritious, good for us, poisonous or even toxic. Invite students to take the test.



### Materials Needed for Test Your Taste Buds

- Cotton swabs
- Water
- Small cups or glasses
- Lemon juice
- Salt
- Honey
- Markers and paper for charting
- Instructions on the next page

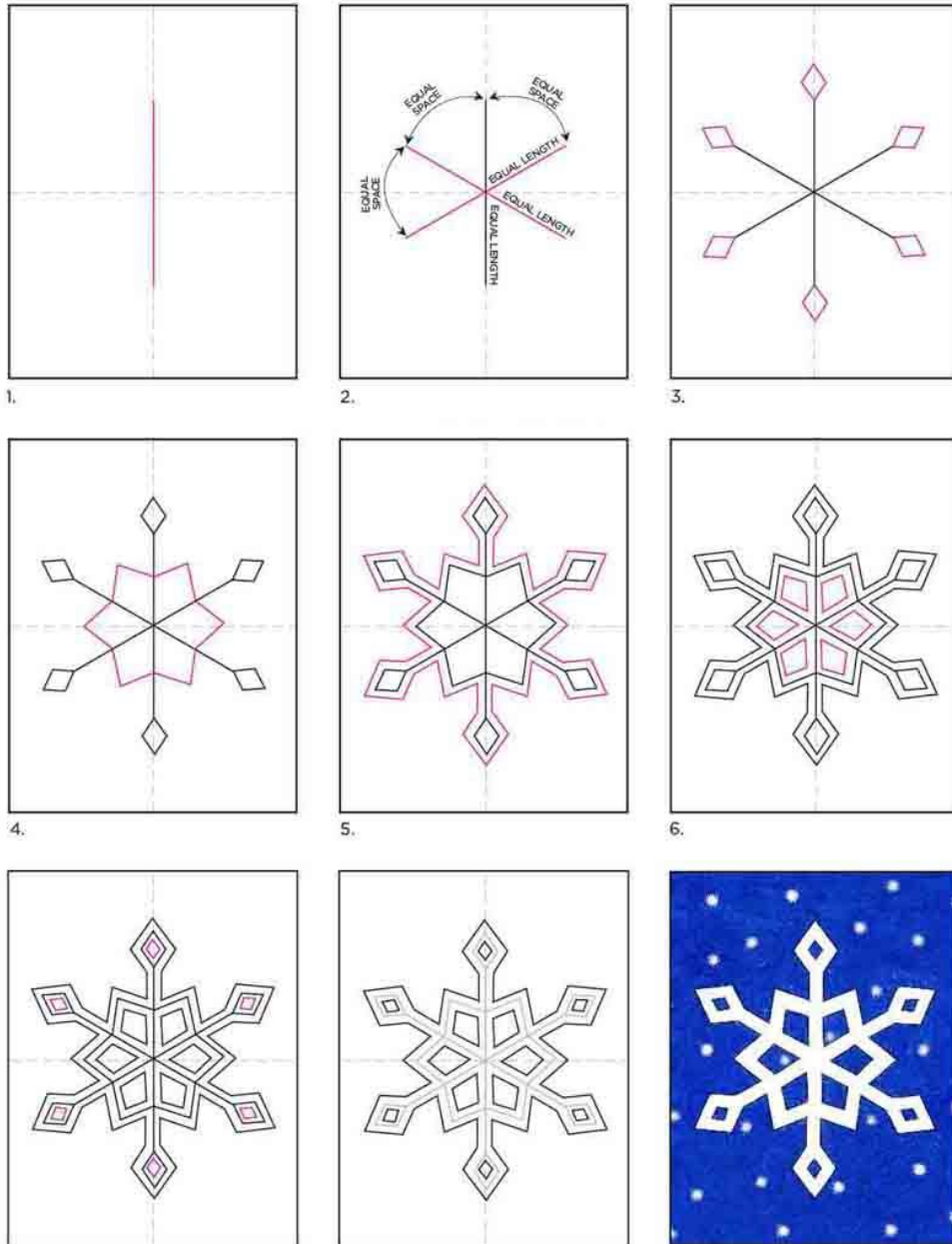
# TEST YOUR TASTE BUDS

- In groups of two, one will be the taster, the other the tester, then switch roles to redo the test.
- In three plastic cups, mix each substance with some water to have the same consistency.
- Draw a chart. On the left side, write each of the foods you will test in a separate row. Try using unsweetened lemon juice to test sour, honey to test sweet, and saltwater to test salty. Across the top, draw three columns for each taster. Label each with the taster's name and "front," "back," and "side."
- Make some predictions:
  1. Do different parts of the tongue taste the flavours more intensely?
  2. Where do you think each flavour will taste strongest?
  3. Will some flavours be easier or harder to taste than others?
- Have the tester dip a cotton swab into one of the liquids and dab it either on the front, back, or side of the taster's tongue.
- After the first taste test, the taster takes a sip of water to clear the tongue of the taste so it does not interfere with the next part of the experiment.
- Test all liquids. Then taster says which part of his tongue tasted the liquid the strongest. The tester records the taster's answer on the chart. Switch roles and do the taste test again with the new taster.
- When all tasters have completed the test, talk about the results
  1. Were your predictions correct?
  2. Did some of your results surprise you?
  3. Did both tasters taste the same things on the same parts of your tongues?

# SNOW IS NOT FLAKY AT ALL. IT IS BRILLIANT!

Nature is full of math, and snowflakes are just one example. They have six points and are hexagonal. Snowflakes have from 180 billion to 10 quintillion (one followed by 19 zeros) water molecules that fall at 4.9 km per hour. The snow crystals can form pillars, needles, diamonds, and triangles under different weather conditions. The beauty of them is their symmetry and uniqueness. Students can also cut out snowflakes to understand these concepts.

[Paper Snowflake Templates | Free Printable Templates & Coloring Pages | FirstPalette.com](#)



## SLIPPER DAY

### Personal and Social

Encompass the abilities to speak and listen as it relates to students' identity in the world, both as individuals and members of their community and society. Personal and social competencies are what students need to thrive as individuals, understand and care about themselves and others, to find and achieve their purposes in the world.

1. Invite students to write or tell a story about their slippers and why they like them.
2. Prepare snow cones or hot chocolate for students and have a selection of books to share that day. The selection can include:  
*The Mitten* — [The Mitten by Jan Brett - Bing video.](#)  
*Stella Queen of the Snow* Marie-Louise Gay  
*The Snowy Day* by Ezra Jack Keats  
*The Totem* by Astrid Lindgren
3. Play games of mix and match mittens.

### Vocabulary and Use

Explain the meaning of words and their relationships and nuances. Use words in narratives to recount events in sequence, including details describing actions, thoughts, and feelings—use of temporal words to signal the order of events, leading to a conclusion.

## Winter Writers' Word Wall

Brainstorm with students to share as many winter words as possible to create a word wall.



<https://www.teachercreated.com/blog/2014/12/winter-bulletin-board-smitten-with-winter-words/>

Invite students to write a winter story of their choice or use one of these prompts:

- What if I could hibernate like a bear?
- What if the snow was made of something else?
- How to make hot chocolate.
- What if I lived on a glacier or an iceberg or at the North Pole or Antarctica? What animals would be my friends?
- My best winter day ever!
- Write a guide on how to win a snowball fight.