

# Kindergarten Curriculum

**Theme:** Exploring the World Around Us

**Duration:** 3 Months (Approximately 12 weeks)

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## Curriculum Overview

- **Unit 1: Sensing Our Environment** (Weeks 1-4)
  - **Unit 2: Weather Wonders** (Weeks 5-8)
  - **Unit 3: Building Basics** (Weeks 9-12)
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## Unit 1: Sensing Our Environment

**Duration:** 4 Weeks

### Unit Objectives

- Recognize and describe the five senses.
- Use senses to make observations about the environment.
- Develop vocabulary related to the senses.
- Understand how senses help us interact with the world.
- Practice safety and hygiene related to the senses.

### Week 1: Introduction to the Five Senses

#### Lesson 1: Introduction to the Five Senses

- **Duration:** 45 minutes
- **Activities:**
  - **Sensory Stations:** Set up five stations, each dedicated to one sense.
    - **Sight Station:** Identify colors and shapes using picture cards and objects.
    - **Hearing Station:** Listen to different sounds (e.g., musical instruments, nature sounds) and guess what they are.
    - **Touch Station:** Feel various textures (e.g., soft cotton balls, rough sandpaper, smooth stones).
    - **Taste Station:** Sample safe, different-tasting foods (e.g., sweet apple slices, salty crackers). **Note:** Check for allergies.

- **Smell Station:** Smell different scents (e.g., vanilla extract, lemon slices, cinnamon sticks).
- **Assessment:**
  - Observe student participation and engagement.
  - Students draw or describe their favorite sensory experience.

### **Lesson 2: Sense of Sight**

- **Duration:** 45 minutes
- **Activities:**
  - **Storytime:** Read a picture book like "Brown Bear, Brown Bear, What Do You See?" by Bill Martin Jr.
  - **"I Spy" Game:** Play "I Spy" using colors and shapes around the classroom.
  - **Art Activity:** Create a colorful collage using different materials.
- **Assessment:**
  - Participation in activities.
  - Students explain their artwork and the colors/shapes used.

### **Lesson 3: Sense of Hearing**

- **Duration:** 45 minutes
- **Activities:**
  - **Listening Walk:** Take a quiet walk around the school to focus on sounds.
  - **Sound Matching Game:** Use sound jars or recordings to match sounds with images.
  - **Musical Exploration:** Introduce simple instruments (e.g., tambourines, shakers).
- **Assessment:**
  - Ability to identify and describe sounds.
  - Engagement during musical activities.

### **Lesson 4: Sense of Touch**

- **Duration:** 45 minutes
- **Activities:**
  - **Texture Feely Bags:** Students reach into bags and describe items by touch alone.
  - **Texture Collage:** Create artwork using materials with different textures.
- **Assessment:**
  - Use of descriptive vocabulary.
  - Observation of students' willingness to explore.

### **Lesson 5: Sense of Taste**

- **Duration:** 45 minutes
- **Activities:**

- **Taste Test:** Sample foods representing sweet, salty, sour, and bitter tastes (e.g., honey, pretzels, lemon slices, unsweetened cocoa). **Note:** Ensure all foods are safe and check for allergies.
- **Graphing Activity:** Create a class graph of favorite tastes.
- **Assessment:**
  - Participation and ability to describe tastes.
  - Contribution to the class graph.

## Week 2: Deepening Understanding of the Senses

### Lesson 6: Sense of Smell

- **Duration:** 45 minutes
- **Activities:**
  - **Smell Jars:** Use opaque containers with scented cotton balls; students guess the scent.
  - **Discussion:** Talk about how smell affects taste.
- **Assessment:**
  - Correct identification of scents.
  - Participation in discussion.

### Lesson 7: Combining the Senses

- **Duration:** 45 minutes
- **Activities:**
  - **Sensory Scavenger Hunt:** In pairs, find items that engage multiple senses.
  - **Recording:** Use worksheets to note findings.
- **Assessment:**
  - Completion and accuracy of worksheets.
  - Collaboration with partner.

### Lesson 8: Protecting Our Senses

- **Duration:** 45 minutes
- **Activities:**
  - **Discussion:** Ways to protect eyes, ears, skin, etc. (e.g., wearing sunglasses, ear protection).
  - **Craft Activity:** Make safety posters.
- **Assessment:**
  - Contribution to discussion.
  - Quality and creativity of posters.

### Lesson 9: Senses in Nature

- **Duration:** 45 minutes
- **Activities:**

- **Nature Exploration:** Collect natural items (leaves, rocks) and use senses to explore them.
- **Classification:** Sort items based on texture, color, smell.
- **Assessment:**
  - Participation in exploration.
  - Ability to sort and classify items.

### **Lesson 10: Sense of Sight Art Project**

- **Duration:** 60 minutes
- **Activities:**
  - **Rainbow Creation:** Use a variety of materials to create a rainbow collage.
  - **Color Mixing:** Experiment with mixing paints to make new colors.
- **Assessment:**
  - Understanding of color concepts.
  - Engagement in art activity.

## **Week 3: Senses and Communication**

### **Lesson 11: Sign Language Introduction**

- **Duration:** 45 minutes
- **Activities:**
  - **Learn Basic Signs:** Teach signs for "hello," "thank you," and the five senses.
  - **Practice:** Pair up and communicate using signs.
- **Assessment:**
  - Ability to recall and use signs.
  - Cooperation with partner.

### **Lesson 12: Braille Exploration**

- **Duration:** 45 minutes
- **Activities:**
  - **Introduction to Braille:** Explain how people who are blind read.
  - **Braille Activity:** Create raised dot letters using stickers.
- **Assessment:**
  - Participation and curiosity.
  - Completion of Braille name tags.

### **Lesson 13: Assistive Devices**

- **Duration:** 45 minutes
- **Activities:**
  - **Discussion:** Explore tools that help people with sensory impairments (hearing aids, glasses).

- **Guest Speaker:** Invite someone who uses an assistive device to speak to the class.
- **Assessment:**
  - Thoughtful questions during Q&A.
  - Reflection drawing or journal entry.

#### **Lesson 14: Senses and Emotions**

- **Duration:** 45 minutes
- **Activities:**
  - **Storytime:** Read a book about emotions (e.g., "The Way I Feel" by Janan Cain).
  - **Activity:** Discuss how senses can influence feelings (e.g., comforting smells, soothing sounds).
- **Assessment:**
  - Participation in discussion.
  - Students draw a time when a sense affected their mood.

#### **Lesson 15: Taste and Smell Experiment**

- **Duration:** 60 minutes
- **Activities:**
  - **Blind Taste Test:** Students taste foods with noses pinched and then unpinched to notice differences.
  - **Discussion:** How smell enhances taste.
- **Assessment:**
  - Ability to articulate observations.
  - Engagement in the experiment.

### **Week 4: Culminating Activities and Review**

#### **Lesson 16: Five Senses Review Game**

- **Duration:** 45 minutes
- **Activities:**
  - **Jeopardy-style Game:** Teams answer questions related to the five senses.
- **Assessment:**
  - Correct answers.
  - Teamwork and participation.

#### **Lesson 17: Sensory Book Creation**

- **Duration:** 60 minutes
- **Activities:**
  - **Book Making:** Each student creates a page for a class book about the senses.
  - **Compilation:** Assemble pages into a book to keep in the classroom library.
- **Assessment:**

- Quality of individual pages.
- Completion and presentation.

### **Lesson 18: Parent Involvement Day**

- **Duration:** 60 minutes
- **Activities:**
  - **Sensory Stations:** Parents and students rotate through favorite activities from the unit.
  - **Demonstrations:** Students explain what they've learned.
- **Assessment:**
  - Ability to explain concepts to parents.
  - Engagement in activities.

### **Lesson 19: Sensory Stations Revisited**

- **Duration:** 60 minutes
- **Activities:**
  - **New Challenges:** Introduce more complex tasks at each sensory station.
- **Assessment:**
  - Observation of skill development.
  - Willingness to try new challenges.

### **Lesson 20: Celebration of Learning**

- **Duration:** 60 minutes
- **Activities:**
  - **Reflection Circle:** Share favorite parts of the unit.
  - **Certificates:** Award participation certificates.
  - **Class Party:** Enjoy sensory snacks and music.
- **Assessment:**
  - Participation in reflection.
  - Demonstration of learned concepts.

### **Ongoing Assessments Throughout Unit**

- **Observations:** Daily monitoring of student engagement and understanding.
- **Work Samples:** Collecting artwork, worksheets, and projects.
- **Anecdotal Records:** Notes on student progress and interactions.
- **Participation:** In discussions, activities, and group work.

### **Standards Alignment**

- **NGSS K-LS1-1:** Use observations to describe patterns of what plants and animals (including humans) need to survive.
- **NGSS K-2-ETS1-1:** Ask questions, make observations, and gather information.

- **CCSS.ELA-LITERACY.SL.K.1:** Participate in collaborative conversations with diverse partners.
  - **CCSS.ELA-LITERACY.SL.K.4:** Describe familiar people, places, things, and events.
  - **CCSS.MATH.CONTENT.K.MD.A.2:** Directly compare two objects with a measurable attribute.
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## Unit 2: Weather Wonders

**Duration:** 4 Weeks

### Unit Objectives

- Identify different types of weather.
- Understand how weather affects daily life.
- Observe and record weather patterns.
- Recognize seasonal changes and their characteristics.
- Explore the water cycle in a simplified manner.

### Week 5: Introduction to Weather

#### Lesson 1: What Is Weather?

- **Duration:** 45 minutes
- **Activities:**
  - **Discussion:** Introduce weather concepts (sunny, cloudy, rainy, snowy, windy).
  - **Weather Chart:** Start a daily weather chart to track conditions.
- **Assessment:**
  - Students draw their favorite weather and explain why.

#### Lesson 2: Weather Symbols

- **Duration:** 45 minutes
- **Activities:**
  - **Learning Symbols:** Teach standard symbols for different weather types.
  - **Matching Game:** Match symbols to weather descriptions.
- **Assessment:**
  - Correct matching during the game.
  - Ability to draw weather symbols.

#### Lesson 3: Measuring Weather

- **Duration:** 45 minutes
- **Activities:**

- **Instruments Introduction:** Show tools like thermometers and rain gauges.
- **Craft Activity:** Make a simple windsock to observe wind.
- **Assessment:**
  - Participation in making instruments.
  - Using the windsock to observe wind direction.

#### **Lesson 4: Weather and Clothing**

- **Duration:** 45 minutes
- **Activities:**
  - **Interactive Game:** Dress a paper doll appropriately for different weather scenarios.
  - **Role-Playing:** Students dress up in weather-appropriate attire.
- **Assessment:**
  - Correct clothing choices.
  - Explanation of their choices.

#### **Lesson 5: Weather Safety**

- **Duration:** 45 minutes
- **Activities:**
  - **Discussion:** Talk about staying safe in various weather conditions (e.g., thunderstorms, extreme heat).
  - **Safety Posters:** Create posters illustrating weather safety tips.
- **Assessment:**
  - Participation and understanding of safety concepts.
  - Quality of posters.

### **Week 6: Exploring Weather Changes**

#### **Lesson 6: Sunny Days**

- **Duration:** 45 minutes
- **Activities:**
  - **Sun Exploration:** Discuss the importance of the sun.
  - **Shadow Tracing:** Go outside and trace shadows at different times.
- **Assessment:**
  - Observations about shadow changes.
  - Participation in activity.

#### **Lesson 7: Cloudy and Rainy Days**

- **Duration:** 45 minutes
- **Activities:**
  - **Cloud Identification:** Learn about different types of clouds.
  - **Cotton Ball Clouds:** Create cloud types using cotton balls.



- **Assessment:**
  - Correct identification of cloud types.
  - Creativity in artwork.

### **Lesson 8: Wind Exploration**

- **Duration:** 45 minutes
- **Activities:**
  - **Pinwheel Craft:** Make pinwheels to observe wind speed.
  - **Outdoor Activity:** Test pinwheels and record observations.
- **Assessment:**
  - Successful construction of pinwheels.
  - Ability to describe wind effects.

### **Lesson 9: Snow and Ice**

- **Duration:** 45 minutes
- **Activities:**
  - **Science Experiment:** Observe ice melting and discuss states of matter.
  - **Snowflake Art:** Cut paper snowflakes and discuss uniqueness.
- **Assessment:**
  - Understanding of melting process.
  - Creativity in snowflake designs.

### **Lesson 10: Rainbows**

- **Duration:** 60 minutes
- **Activities:**
  - **Prism Exploration:** Use prisms to create rainbows.
  - **Color Mixing:** Paint rainbows and discuss color order.
- **Assessment:**
  - Participation in prism activity.
  - Accuracy in rainbow colors.

## **Week 7: Seasons and Weather Patterns**

### **Lesson 11: Introduction to Seasons**

- **Duration:** 45 minutes
- **Activities:**
  - **Discussion:** Talk about the four seasons and their characteristics.
  - **Season Sorting:** Match activities and clothing to the correct season.
- **Assessment:**
  - Correct matching.
  - Participation in discussion.

## Lesson 12: Fall Exploration

- **Duration:** 45 minutes
- **Activities:**
  - **Leaf Collection:** Collect leaves and observe changes.
  - **Leaf Rubbings:** Create art using collected leaves.
- **Assessment:**
  - Observations about leaf characteristics.
  - Quality of leaf rubbings.

## Lesson 13: Winter Wonders

- **Duration:** 45 minutes
- **Activities:**
  - **Sensory Activity:** Explore the concept of cold using ice cubes.
  - **Storytime:** Read a winter-themed book.
- **Assessment:**
  - Ability to describe how cold feels.
  - Engagement during storytime.

## Lesson 14: Spring Surprises

- **Duration:** 45 minutes
- **Activities:**
  - **Planting Seeds:** Begin a class garden.
  - **Observation:** Discuss signs of new life in spring.
- **Assessment:**
  - Participation in planting.
  - Contributions to discussion.

## Lesson 15: Summer Fun

- **Duration:** 45 minutes
- **Activities:**
  - **Water Play:** Explore evaporation with water painting on pavement.
  - **Safety Discussion:** Talk about sun safety (e.g., wearing hats, sunscreen).
- **Assessment:**
  - Understanding of evaporation.
  - Awareness of sun safety.

## Week 8: The Water Cycle and Culminating Activities

### Lesson 16: Introduction to the Water Cycle

- **Duration:** 45 minutes

- **Activities:**
  - **Simple Explanation:** Use visuals to explain evaporation, condensation, precipitation.
  - **Song:** Learn a water cycle song.
- **Assessment:**
  - Participation in singing.
  - Ability to recall cycle steps.

### **Lesson 17: Rain in a Jar Experiment**

- **Duration:** 60 minutes
- **Activities:**
  - **Experiment:** Create a mini water cycle using a jar, hot water, plate, and ice.
  - **Observation:** Watch condensation and "rain" form.
- **Assessment:**
  - Accurate observations.
  - Understanding of the process.

### **Lesson 18: Weather Forecasting**

- **Duration:** 45 minutes
- **Activities:**
  - **Role-Playing:** Students act as weather forecasters.
  - **Presentation:** Share weather reports using learned symbols.
- **Assessment:**
  - Clarity of presentations.
  - Use of correct terminology.

### **Lesson 19: Weather Wrap-Up Game**

- **Duration:** 45 minutes
- **Activities:**
  - **Weather Bingo:** Review weather concepts through a bingo game.
- **Assessment:**
  - Correct identification of weather terms.
  - Engagement in the game.

### **Lesson 20: Weather Fair**

- **Duration:** 60 minutes
- **Activities:**
  - **Group Projects:** Create displays or models of different weather phenomena.
  - **Invite Families:** Share projects with parents and other classes.
- **Assessment:**
  - Quality of projects.
  - Ability to explain concepts.

## Ongoing Assessments Throughout Unit

- **Weather Journals:** Daily entries about weather observations.
- **Class Discussions:** Participation and contributions.
- **Projects and Artwork:** Evaluation of understanding through creative expression.

## Standards Alignment

- **NGSS K-ESS2-1:** Use and share observations of local weather conditions to describe patterns over time.
  - **NGSS K-ESS2-2:** Construct an argument supported by evidence for how plants and animals (including humans) can change the environment.
  - **CCSS.ELA-LITERACY.SL.K.5:** Add drawings or other visual displays to descriptions.
  - **CCSS.MATH.CONTENT.K.MD.A.2:** Directly compare two objects with a measurable attribute.
  - **CCSS.MATH.CONTENT.K.CC.B.5:** Count to answer "how many?" questions.
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## Unit 3: Building Basics

**Duration:** 4 Weeks

### Unit Objectives

- Understand how shapes are used in building structures.
- Experiment with constructing simple structures.
- Recognize the role of different materials in construction.
- Develop problem-solving and teamwork skills.
- Explore basic engineering concepts through play.

### Week 9: Introduction to Shapes and Structures

#### Lesson 1: Shapes in Our World

- **Duration:** 45 minutes
- **Activities:**
  - **Shape Hunt:** Explore the classroom to find and identify shapes.
  - **Discussion:** How shapes are used in buildings and everyday objects.
- **Assessment:**
  - Completion of a shape chart.
  - Participation in discussion.

#### Lesson 2: Drawing with Shapes

- **Duration:** 45 minutes
- **Activities:**
  - **Art Activity:** Use pre-cut shapes to create pictures of houses, bridges, etc.
  - **Presentation:** Share artwork with the class.
- **Assessment:**
  - Creativity and use of shapes.
  - Ability to explain their artwork.

### **Lesson 3: 3D Shapes Exploration**

- **Duration:** 45 minutes
- **Activities:**
  - **Hands-On Exploration:** Use blocks to explore cubes, spheres, cones, and cylinders.
  - **Sorting Activity:** Group objects by shape.
- **Assessment:**
  - Correct identification of 3D shapes.
  - Engagement in activities.

### **Lesson 4: Materials Matter**

- **Duration:** 45 minutes
- **Activities:**
  - **Material Comparison:** Discuss properties of wood, metal, plastic, and stone.
  - **Feely Bags:** Identify materials by touch.
- **Assessment:**
  - Ability to describe material properties.
  - Participation in activities.

### **Lesson 5: Famous Structures**

- **Duration:** 45 minutes
- **Activities:**
  - **Slide Show:** Show images of famous buildings and bridges.
  - **Discussion:** Talk about what makes these structures special.
- **Assessment:**
  - Students draw their favorite structure.
  - Explain what they like about it.

## **Week 10: Building and Engineering Concepts**

### **Lesson 6: Introduction to Building Tools**

- **Duration:** 45 minutes
- **Activities:**
  - **Tool Talk:** Introduce safe, child-friendly tools (e.g., plastic hammers, screwdrivers).

- **Safety Rules:** Discuss how to use tools safely.
- **Assessment:**
  - Understanding of safety rules.
  - Proper handling of tools.

### **Lesson 7: Constructing Towers**

- **Duration:** 60 minutes
- **Activities:**
  - **Building Challenge:** Use blocks or recycled materials to build the tallest tower.
  - **Observation:** Discuss stability and design choices.
- **Assessment:**
  - Stability of structures.
  - Ability to explain their design.

### **Lesson 8: Bridges and Balance**

- **Duration:** 60 minutes
- **Activities:**
  - **Bridge Building:** Construct simple bridges using popsicle sticks and tape.
  - **Testing:** See how much weight the bridges can hold.
- **Assessment:**
  - Functionality of bridges.
  - Problem-solving during construction.

### **Lesson 9: Shapes and Strength**

- **Duration:** 45 minutes
- **Activities:**
  - **Experiment:** Test which shapes are strongest (e.g., triangles vs. squares).
  - **Data Recording:** Chart results of strength tests.
- **Assessment:**
  - Accurate data recording.
  - Understanding of why certain shapes are stronger.

### **Lesson 10: Introduction to Blueprints**

- **Duration:** 45 minutes
- **Activities:**
  - **Drawing Plans:** Teach students to draw simple building plans.
  - **Application:** Plan a structure to build in future lessons.
- **Assessment:**
  - Completeness of blueprints.
  - Ability to explain their plan.

## Week 11: Collaborative Building Projects

### Lesson 11: Team Building Project Planning

- **Duration:** 45 minutes
- **Activities:**
  - **Group Formation:** Assign students to small groups.
  - **Project Selection:** Each group decides on a structure to build (e.g., castle, spaceship).
- **Assessment:**
  - Effective teamwork.
  - Feasibility of project plans.

### Lesson 12: Gathering Materials

- **Duration:** 45 minutes
- **Activities:**
  - **Materials List:** Groups list what they need.
  - **Collection:** Gather materials from classroom or bring from home.
- **Assessment:**
  - Organization and preparedness.
  - Cooperation within groups.

### Lesson 13: Building Day 1

- **Duration:** 60 minutes
- **Activities:**
  - **Construction Begins:** Groups start building their structures.
  - **Teacher Support:** Assist with challenges and encourage problem-solving.
- **Assessment:**
  - Progress made.
  - Teamwork and communication.

### Lesson 14: Building Day 2

- **Duration:** 60 minutes
- **Activities:**
  - **Continue Construction:** Focus on finishing touches.
  - **Decoration:** Paint or decorate structures.
- **Assessment:**
  - Completion of structures.
  - Creativity and effort.

### Lesson 15: Presentation of Projects

- **Duration:** 60 minutes
- **Activities:**

- **Group Presentations:** Each group shares their structure with the class.
- **Q&A Session:** Students ask and answer questions.
- **Assessment:**
  - Clarity of presentations.
  - Ability to reflect on the building process.

## **Week 12: Applying Knowledge and Culmination**

### **Lesson 16: Building with Recyclables**

- **Duration:** 45 minutes
- **Activities:**
  - **Eco-Friendly Construction:** Use recycled materials to build models.
  - **Discussion:** Importance of recycling and sustainability.
- **Assessment:**
  - Use of materials.
  - Understanding of recycling concepts.

### **Lesson 17: Engineering Challenges**

- **Duration:** 45 minutes
- **Activities:**
  - **Marshmallow Structures:** Build towers using marshmallows and toothpicks.
  - **Goal:** Create the tallest free-standing structure.
- **Assessment:**
  - Stability and height of towers.
  - Problem-solving strategies.

### **Lesson 18: Storytime Engineering**

- **Duration:** 45 minutes
- **Activities:**
  - **Read "The Three Little Pigs":** Discuss building materials used.
  - **Activity:** Build houses using straw (craft sticks), sticks (toothpicks), and bricks (blocks).
- **Assessment:**
  - Connection between story and activity.
  - Observations about material strength.

### **Lesson 19: Reflective Drawing**

- **Duration:** 45 minutes
- **Activities:**
  - **Drawing Activity:** Illustrate something they've built and write a sentence about it.
  - **Sharing:** Present drawings to the class.
- **Assessment:**



- Detail in drawings.
- Ability to express ideas verbally and in writing.

### **Lesson 20: Building Basics Celebration**

- **Duration:** 60 minutes
- **Activities:**
  - **Display Projects:** Set up a classroom museum of structures.
  - **Invite Guests:** Parents and other classes visit.
  - **Certificates:** Award "Junior Engineer" certificates.
- **Assessment:**
  - Participation in event.
  - Pride in accomplishments.

### **Ongoing Assessments Throughout Unit**

- **Observation of Skills:** Fine motor skills during construction.
- **Teamwork:** Ability to work collaboratively.
- **Problem-Solving:** Approaches to challenges.
- **Understanding Concepts:** Through discussions and questioning.

### **Standards Alignment**

- **NGSS K-2-ETS1-2:** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function.
  - **NGSS K-2-ETS1-3:** Analyze data from tests of two objects designed to solve the same problem.
  - **CCSS.MATH.CONTENT.K.G.A.2:** Correctly name shapes regardless of their orientations or overall size.
  - **CCSS.MATH.CONTENT.K.MD.A.2:** Directly compare two objects with a measurable attribute.
  - **CCSS.ELA-LITERACY.SL.K.4:** Describe familiar people, places, things, and events.
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### **Additional Notes for Educators**

- **Flexibility:** Adjust lessons based on the class's interests and pacing.
- **Differentiation:** Provide support or extensions as needed for diverse learners.
- **Parental Involvement:** Encourage families to participate by contributing materials or attending events.
- **Safety Considerations:** Always supervise activities involving tools or small materials.

