

# Preschool Fairytale Curriculum Overview

## Pre-K Standards that will be met by participating in these 10 Fairytale STEM Activities:

- **Domain 1: Approaches to Learning**
  - 1.a- Interacts with a variety of materials through play
  - 1.c- Engages in pretend and imaginative play- testing theories, acting out imagination
  - 1.e- Uses “trial and error” method to figure out a task, problem, etc.
  - 1.f- Demonstrates awareness of connections between prior and new knowledge
  - 2.b- Attempts multiple ways to solve a problem
  - 2.c- Communicates more than one solution to a problem
  - 2.d- Engages with peers and adults to solve problems
  - 3.c- Experiments to further his/her knowledge
  - 3.d- Seeks additional clarity to further his/her knowledge
  - 3.f- Communicates more than one solution to a problem
  - 4.a- Asks questions using who, what, how, why, when, where, what if
  - 4.c- Actively explores how things in the world work
  - 4.g- Willingly engages in new experiences and activities
  - 5.a- Maintains focus on a task
  - 5.b- Seeks assistance when the next step seems unclear or appears too difficult
  - 5.c- Modifies strategies used to complete a task
- **Domain 2: Physical Development and Health**
  - 1.a- Identifies sights, smells, sounds, tastes, and textures
  - 1.b- Compares and contrasts different sights, smells, sounds, tastes, and textures
  - 1.c- Uses descriptive words to discuss sights, smells, sounds, tastes, and textures
  - 2.c- Demonstrates awareness of spatial boundaries and the ability to work within them
  - 5.a- Uses pincher grasp
  - 5.c- Uses materials such and pencils, paintbrushes, eating utensils and blunt scissors effectively
  - 5.d- Manipulates small objects with ease
- **Domain 3: Social and Emotional Development**
  - 1.d- Exhibits self-confidence by attempting new tasks independent of prompting or reinforcement
  - 1.g- Displays accomplishment, contentment, and acknowledgement when completing a task or solve a problem by himself/herself
  - 2.a- Expresses feelings, needs, opinions and desires in a way that is appropriate to the situation

- 3.b- Seeks guidance from primary caregivers, teachers and other familiar adults
  - 4.b- Interacts with other children
  - 4.c- Shares materials and toys with other children
  - 4.d- Sustains interactions by cooperating, helping, and suggesting new ideas for play
  - 4.f- Offers support to another child or shows concern when a peer seems distressed
  - 5.a- Seeks input from others about a problem
  - 5.b- Uses multiple pro-social strategies to resolve conflicts
  - 5.c- Uses and accepts compromise, with assistance
  - 6.a- Displays and understanding of the purpose of rules
  - 6.b- Engages easily in routine activities
  - 6.c- Uses materials purposefully, safely, and respectfully as set by group rules
- **Domain 4: Communication, Language, and Literacy**
  - **Part A: Approaches to Communication**
    - 1.a- Participates in small or large group activities for storytelling, singing or finger plays
    - 1.b- Asks questions
    - 1.c- Listens attentively for a variety of purposes
    - 1.e- Nods or gives nonverbal cues that he is understanding
    - 2.a- Asks questions related to a particular item, event, or experience
    - 2.c- Uses new vocabulary correctly
    - 2.d- Makes comparisons to words and concepts already known
    - 3.a- Uses vocabulary relevant to observations
    - 3.c- Asks questions related to visual text and observations
    - 5.a- Understands and follows spoken directions
    - 6.f- Initiates conversations about a book, situation, event or print in the environment
  - **Part B: English Language Arts and Literacy**
  - **Reading Standards for Literature**
    - 1. With prompting and support, ask and answer about detail in a text
    - 3. With prompting and support, ask and answer questions about characters and major events in a story
    - 4. Exhibit curiosity and interest in learning new vocabulary
    - 10. Actively engage in group reading activities with purpose and understanding
  - **Reading Standards for Informational Text**
    - 1. With prompting and support, ask and answer questions about detail in a text
    - 3. With prompting and support, describe the connection between two events or pieces of information in a text

- 4. Exhibit curiosity and interest in learning new vocabulary
- 10. With prompting and support, actively engage in group reading activities with purpose and understanding
- **Reading Standards: Foundational Skills**
  - 1.a- Follow words from left to right, top to bottom, and page by page
  - 1.b- Recognize that spoken words are represented in written language by specific sequences of letters
  - 1.c- Understand that words are separated by spaces in print
- **Writing Standards**
  - 2. With prompting and support, use a combination of drawing, dictating or writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic
  - 8. With guidance and support, recall information from experiences or gather information from provided sources to answer a question
- **Speaking and Listening Standards**
  - 1.a- Engage in agreed-upon rules for discussion
  - 1.b- Engage in extended conversations
  - 2. With guidance and support, confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood
- **Language Standards**
  - 1.d- Understand and use question words
  - 2.b- Attempt to write a letter or letters to represent a word
  - 5.a- Sort common objects into categories for understanding of the concepts the categories represent
  - 5.c- Identify real-life connections between words and their use
- **Domain 5- Cognition and Knowledge of the World- Mathematics**
  - A. Make sense of problems and persevere in solving them
  - C. Construct viable arguments and critique the reasoning of others
  - G. Look for and make use of structure
  - 1. Count to 20
  - 3.a- When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object
  - 3.b- Understand that the last number name said tells the number of objects counted. The number of objects is the same
  - 4. Count to answer “how many” questions

- 5. Identify whether the number of objects in one group is more, less, greater than, fewer, and /or equal to the number of objects in another group
- 1. Identify measurable attributes of objects, such as length, and weight
- 2. Sort objects into categories
- 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as top, bottom, up, down, in front of, behind, over, under, and next to.
- 2. Create and build shapes from components
- **Domain 5- Cognition and Knowledge of the World- The Arts**
  - 1.c- Uses materials to build and create “pieces” that represent another item
  - 1.d- Chooses materials and subjects with intent and purpose
  - 1.e- Paints, draws and constructs models based on observations
  - 5.a- Represents fantasy, real-life, imagination, and literature through dramatic play
- **Domain 5- Cognition and Knowledge of the World- Technology**
  - 1.a- Discusses or describes characteristics of materials in the environment
  - 1.b- Explains some uses for materials
  - 1.c- Creates structures with various materials to determine which do/don’t work to achieve the desired purpose
  - 2.b- Follows simple directions for appropriate use of tools and demonstrates how they are used
  - 2.c- Describes and uses a variety of tools independently or with assistance
  - 2.d- Uses common tools to create simple objects or structures
  - 2.e- Invents and/or constructs simple objects using common tools and materials in a safe manner
  - 3.b- Describes how technology can make finding information, completing tasks and solving problems faster and easier

## **Fairy Tale Modules with Module Specific Domain 5 Standards**

- **Jack and the Beanstalk- Life Cycle of a Plant**
  - **Challenge:** To design and build the tallest beanstalk that will support the most weight.
    - **Domain 5- Cognition and Knowledge of the World- Science**
      - 1.a- Uses senses to gather, explore, and interpret information
      - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
      - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation

- 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
  - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
  - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
  - 2.c- Replicates or changes the experimental approach
  - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
  - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
  - 3.c- Verifies predictions by explaining “how” and “why”
  - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 5.a- Observes and discusses similarities, difference, and categories of plants and animals
  - 5.b- Identifies things as living and nonliving based on characteristics, such as breathes, moves by itself, grows
  - 5.c- Explains why plants and animals need water and food
  - 5.d- Observes and discusses similarities, differences, and categories of plants and animals
  - 5.g- Describes simple life cycle of plants and animals
  - 5.h- Describes and identifies the different structures of familiar plants and animals
  - 5.i- Recognizes that plants and animals have some characteristics of their “parents”
  - 5.j- Observes, describes, and compares the habitats of plants and animals
  - 5.k- Observes, records, and explains how plants and animals respond to changes in the environments and changes in seasons
  - 6.e- Uses a variety of tools to explore the world and learn how things work
- **Rapunzel- Gravity/Forces of Motion**
    - **Challenge:** Design and build a zip line that will help Rapunzel escape her tower.
      - **Domain 5- Cognition and Knowledge of the World- Science**
        - 1.a- Uses senses to gather, explore, and interpret information
        - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
        - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation

- 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
  - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
  - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
  - 2.c- Replicates or changes the experimental approach
  - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
  - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
  - 3.c- Verifies predictions by explaining “how” and “why”
  - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 6.e- Uses a variety of tools to explore the world and learn how things work
  - 6.g- Describes and compares the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism and mechanical forces
- **The Three Little Pigs- Materials in Our World**
    - **Challenge:** Design and build a house for their pigs that will withstand huffs and puffs from the Big Bad Wolf.
      - **Domain 5- Cognition and knowledge of the World- Science**
        - 1.a- Uses senses to gather, explore, and interpret information
        - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
        - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
        - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
        - 2.a- Gives oral, written and graphic explanations of what he/she wants to learn
        - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
        - 2.c- Replicates or changes the experimental approach
        - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
        - 3.c- Verifies predictions by explaining “how” and “why”

- 3.d- Makes age appropriate, logical conclusions about investigations
  - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 4.e- Expresses ways the environment provides natural resources that are needed by people
  - 6.a- Describes, compares, and categorizes objects based on their properties
- **Stone Soup- Rocks, Pebbles/Community and Sharing**
    - **Challenge:** Design and build a cooking pot that will hold the most soup.
      - **Domain 5- Cognition and knowledge of the World- Science**
        - 1.a- Uses senses to gather, explore, and interpret information
        - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
        - 1.d- Organizes his or her observations of objects and events by identifying, classifying, etc.
        - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
        - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
        - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
        - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
        - 2.c- Replicates or changes the experimental approach
        - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
        - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
        - 3.b- Identifies cause and effect relationships
        - 3.c- Verifies predictions by explaining “how” and “why”
        - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
        - 4.a- Investigates and identifies properties of soil, rocks, and minerals
        - 5.a- Observes and discusses similarities, difference, and categories of plants and animals
        - 5.b- Identifies things as living and nonliving based on characteristics, such as breathes, moves by itself, grows
        - 5.c- Explains why plants and animals need water and food

- 5.d- Observes and discusses similarities, differences, and categories of plants and animals
  - 5.g- Describes simple life cycle of plants and animals
  - 5.h- Describes and identifies the different structures of familiar plants and animals
  - 5.i- Recognizes that plants and animals have some characteristics of their “parents”
  - 5.j- Observes, describes, and compares the habitats of plants and animals
  - 5.k- Observes, records, and explains how plants and animals respond to changes in the environments and changes in seasons
  - 6.e- Uses a variety of tools to explore the world and learn how things work
  - 6.f- Investigate common interactions between matter and energy
  - **Domain 5- Cognition and Knowledge of the World- Social Studies**
    - 1.g- Describes how people within a community are like and different
- **The Billy Goats Gruff- What animals need to live**
  - **Challenge:** Design and build a bridge that will hold all three billy goats for more than 30 seconds.
    - **Domain 5- Cognition and knowledge of the World- Science**
      - 1.a- Uses senses to gather, explore, and interpret information
      - 1.b- Manipulates and observes objects in his or her surroundings to develop conclusions
      - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
      - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
      - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
      - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
      - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
      - 2.c- Replicates or changes the experimental approach
      - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
      - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
      - 3.b- Identifies cause and effect relationships
      - 3.c- Verifies predictions by explaining “how” and “why”

- 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 4.e- Expresses ways the environment provides natural resources that are needed by people
  - 5.a- Observes and discusses similarities, difference, and categories of plants and animals
  - 5.c- Explains why plants and animals need water and food
  - 5.d- Observes and discusses similarities, differences, and categories of plants and animals
  - 5.f- Explains why plants and animals need water and food
  - 5.h- Describes and identifies the different structures of familiar plants and animals
  - 5.i- Recognizes that plants and animals have some characteristics of their “parents”
  - 5.j- Observes, describes, and compares the habitats of plants and animals
  - 5.k- Observes, records, and explains how plants and animals respond to changes in the environments and changes in seasons
  - 6.e- Uses a variety of tools to explore the world and learn how things work
- **The Princess and the Pea- Sun, Moon and Stars/ Gravity**
    - **Challenge:** Design and build a parachute that will help the princess descend to the ground as safely as possible.
      - **Domain 5- Cognition and Knowledge of the World- Science**
        - 1.a- Uses senses to gather, explore, and interpret information
        - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
        - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
        - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
        - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
        - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
        - 2.c- Replicates or changes the experimental approach
        - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
        - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
        - 3.c- Verifies predictions by explaining “how” and “why”

- 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 4.c- Makes simple observations of the characteristics and movements of sun, moon, stars, and clouds
  - 6.e- Uses a variety of tools to explore the world and learn how things work
  - 6.g- Describes and compares the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces
- **Henny Penny- Weather**
    - **Challenge:** Design and build a device that will protect Henny Penny when the sky begins to fall.
      - **Domain 5- Cognition and knowledge of the World- Science**
        - 1.a- Uses senses to gather, explore, and interpret information
        - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
        - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
        - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
        - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
        - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
        - 2.c- Replicates or changes the experimental approach
        - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
        - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
        - 3.b- Identifies cause and effect relationships
        - 3.c- Verifies predictions by explaining “how” and “why”
        - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
        - 4.b- Investigates and identifies physical properties and characteristics of water
        - 4.d- Observes and discusses changes in weather and seasons using common weather related vocabulary
        - 4.e- Expresses ways the environment provides natural resources that are needed by people
        - 6.e- Uses a variety of tools to explore the world and learn how things work

- **Goldilocks and the Three Bears- Chemistry**
  - **Challenge:** Design and build a new chair for Baby Bear.
    - **Domain 5- Cognition and Knowledge of the World- Science**
      - 1.a- Uses senses to gather, explore, and interpret information
      - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
      - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
      - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
      - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
      - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
      - 2.c- Replicates or changes the experimental approach
      - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
      - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
      - 3.c- Verifies predictions by explaining “how” and “why”
      - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
      - changes in the environments and changes in seasons
      - 6.e- Uses a variety of tools to explore the world and learn how things work
      - 6.h- Explores and discusses simple chemical reactions with teacher assistance
  
- **Little Red Riding Hood- Living vs. Non Living/ Recycling**
  - **Challenge:** Design and build a basket that will hold the most weight.
    - **Domain 5- Cognition and Knowledge of the World- Science**
      - 1.a- Uses senses to gather, explore, and interpret information
      - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
      - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
      - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world

- 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
  - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
  - 2.c- Replicates or changes the experimental approach
  - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
  - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
  - 3.c- Verifies predictions by explaining “how” and “why”
  - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations
  - 4.f- Demonstrates ways that each person is responsible for protecting our planet
  - 5.e- Identifies things as living or non-living based on characteristics, such as breathes, moves by itself, grows
  - 6.e- Uses a variety of tools to explore the world and learn how things work
  
- **The Golden Goose- Properties of Water**
  - **Challenge:** Design and build an amphibious vehicle that will travel on land as well as sea.
    - **Domain 5- Cognition and Knowledge of the World- Science**
      - 1.a- Uses senses to gather, explore, and interpret information
      - 1.c- Makes observations and describes changes in objects, living things, and natural events in the environment
      - 1.e- Asks, “Why”, “How”, and “What if”, questions and seeks answers through experimentation and investigation
      - 1.f- Makes predictions based on background knowledge, previous scientific experiences, and observations of objects and events in the world
      - 2.a- Gives oral, written or graphic explanations of what he/she wants to learn
      - 2.b- Uses and variety of tools and materials to test predictions through active experimentation
      - 2.c- Replicates or changes the experimental approach
      - 2.d- Records and organizes data using graphs, charts, science journals, and other means of recording
      - 3.a- Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned
      - 3.c- Verifies predictions by explaining “how” and “why”
      - 3.e- Shares ideas about objects, living things and other natural events in the environments through words, pictures, and other representations

- 4.b- Investigates and identifies physical properties and characteristics of water
- 6.e- Uses a variety of tools to explore the world and learn how things work