
TITLE:

Jack and the Beanstalk: Exploring Math and Science through Dance

DEVELOPED BY:

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ART FORM:

Dance/Movement

Drama

Music

Puppetry

Multi-disciplinary / _____

OBJECTIVE(S)/GOAL:

Video 1: Exploring AB Patterns through Dance

Children will be able to:

- understand and create AB patterns through the use of coffee can theater, repetition, and dance

Video 2: Exploring Money and Skip Counting through Dance

Children will be able to:

- identify a nickel and use skip counting through chant and movement

Video 3: Exploring Part-Part-Whole through Dance

Children will be able to:

- add numbers through part-part-whole
- use movement to verify their answers
- use measuring by comparison in order to demonstrate the size of their movement

Video 4: Exploring the Growth Cycle and Measuring by Comparison through Dance

Children will be able to:

- learn the growth cycle of a plant through the Seed to Plant Dance
- incorporate measuring by comparison, seriation, and small group experiences

VOCABULARY:

Arts Vocabulary

Dance phrase

Chant

Body shape
Setting

Curriculum Content Vocabulary

AB patterns
Tall/Short
Nickel
Count
Skip counting by fives
Part-Part-Whole
Set
First, second
Longest/Shortest
Big/Small
Wide/Narrow
Growth Cycle
Seed
Grow
Soil
Measure

MATERIALS NEEDED:

Story Bag
Bell
Slide Whistle
Yarn

MAIN EXPERIENCE:**Introduction**

Interactive Coffee Can/Story Bag story of “Jack and the Beanstalk” with paper puppets and objects:
Once upon a time there was a little boy named Jack who lived in a short house under a tall tree with his mother and their cow named Snowy White (ring bell). One day, Jack’s mother went to their treasure chest to see how much money they had and exclaimed, “5, 10, 15, 20, Jack, my dear, we need some money!” (Drop nickels into tin. Tell children to show you their 5’s (hand). Reach hands up over head, one after the other, while repeating chant). *Jack asked his mother, “How?”* (ring bell). Ask children what they think Jack did. Continue story - *Jack went off to sell Snowy White at the market, but on his way he met a wizard* (pull wizard hat out of bag and give it to teacher to play the role of the wizard). The wizard told Jack that he had a problem to solve and was hoping that Jack could help - *“Can you tell me how many beans make 5?”* And Jack replied *“2 in each hand and one in your mouth.”* Wizard – ask the children if that is correct. Wizard - *“That is correct, so I don’t mind doing a trade with you—your cow for my beans.”* Jack said, *“No Way.”* Wizard – *“But these are magic beans! Plant them today*

and they will grow over night. If they don't work, you get your cow back!" So, Jack agreed. When he took the beans home to his mother, she was very mad. She did not believe that they were magic beans, so she threw them out the window and sent Jack to bed without any supper. That night, a bean began to grow. At 9 o'clock it was just a short sprout, at 10 o'clock it grew a little longer, 11, 12, 1, 2, 3.... (Pull stalk out of story bag slowly).

Main Experience

Seed to Plant Dance: Sequence through the life cycle of a seed to plant – 1st plant the seed - Pat the children's backs and ask them to get small, curvy, and low. Cover the children with imaginary dirt, singing, *"Plant, plant, plant the seed, watch the bean stalk grow, merrily, merrily, merrily, merrily, watch the bean stalk grow* (to the tune of "Row, Row, Row Your Boat"). 2nd, water the seeds – sing, *"Water, water, water the seeds..."* – while sprinkling water on the children. 3rd, the sun warms the soil - Sing "Mr. Sun" and brush their backs with a silk scarf. 4th, the bean stalk grows. Explain that the beanstalk began to grow (use slide whistle to accompany children getting bigger and taller) *"And freeze."* Use Descriptive Language to describe the children's body shapes.

Center: Tell the children to grow into a long bean stalk.

- Measure each child with a piece of yarn while using descriptive language to describe the child's body shape. Tape a piece of masking tape on the string and write the child's name on it.
- Instruct the children to measure their string with their hands – *"How many hands long is your string?"*
- Lay the strings down on the floor and arrange longest to shortest.
- Instruct the children to stand at one end of their string and make a body shape that is about as long as their string. Hold up string and measure the children's body shape so that each child can adjust his/her shape to match the string.

INTENTIONAL QUESTIONS:

Open-Ended (i.e. children contributing possibilities, thoughts)

How can you pretend to have a tail? A bell? (Video 1)

How can we move our bodies on these vinyl spots? (Video 3)

How many hands long is your string? (Video 4)

Demonstration (i.e. "show me...")

Show me your five. (Video 2)

Make a body shape that is about as long as your string. (Video 4)

Factual Questions

Who is taller—Jack or Jack's mother? Who is shorter—Jack's mother or Jack? (Video 1)

What is this coin? How much is it worth? (Video 2)

How many jumping beans make five? (Video 3)



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MODIFICATION:

For Main Experience

Possible Extension Experience:

Find something in the room that is about as long as your string, shorter than, longer than.

Possible Parent Communication/Connection

How many hands long is a grown-up at your house?
