Pre-K Learning About Legumes

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Overview:
The class will learn about legumes and observe different types. Students will sort legumes by size, color, and/or shape, and explore them with a magnifying glass. They will create a musical instrument and participate in a parade.

Georgia Early Learning and Development Standards:
- CD-MA4 The child will sort, order, classify, and create patterns.
- CD-SC1 The child will demonstrate scientific inquiry skills.
- PDM5 The child will demonstrate gross motor skills.

Objectives:
- Students will be able to identify different types of legumes, including ones they have eaten
- Students will sort various legumes by size, color and/or shape
- Students will classify legumes as vegetables and acknowledge that they help them grow and be strong

Materials:
- Examples of legumes- either dried or canned, or pictures of legumes or dishes made with legumes (like chili, hummus, lentil stew, peanut butter, etc.)
- A variety of dried legumes, like black beans, kidney beans, chickpeas, lima beans, blackeye peas, lentils, and split peas
- Bins for holding legumes (could be a large bin many children stand around and share, or smaller bins used at the table)
- Beans that have soaked overnight
- Magnifying glasses
- Trays or small containers for sorting
- Measuring cups
- Funnels
- Empty water bottles or toilet paper tubes; and a way to fasten them shut (glue, tape, staples, etc.)
Lesson Plan:

- **Engage (whole group): 10 minutes**
  - Introduce students to legumes, and show examples. Try to include varieties or dishes from different cultures. Legumes include:
    - Beans: black beans, kidney beans, garbanzo beans (chickpeas), lima beans, green soybeans (edamame), etc.
    - Lentils
    - Peas: green peas, snow pea, snap peas, split peas, blackeye peas
    - Peanuts
  - Engage in conversation about types of legumes children have eaten. Discuss any meals on this week’s menu that include legumes.

- **Explore (small group): 15 minutes**
  - Allow children time to play with and explore the dried legumes in the bin-touching them and scooping them with the measuring cups.
  - Have children scoop about ½ cup onto their work area. Ask them to sort beans by color, size and/or shape. Continue to have the children sort the beans in different ways.
  - Provide magnifying glasses so students can explore the legumes.
  - Discuss the color and texture of the dried legumes.
  - This can be done in separate centers for 10 minutes each.

- **Explain (whole group): 10 minutes**
  - Explain that beans, peas and lentils are kinds of legumes, and that legumes are a kind of vegetable (if that concept is challenging, compare it to berries, which might be more familiar. There are lots of berries, like blueberries, blackberries and strawberries, and they are all fruits).
  - Legumes give our bodies lots of nutrients, which are parts of foods that help us grow and be strong. One nutrient is protein, which helps us build strong muscles.
  - Before we can eat dried beans, we need to soak them in water to make them softer. Show dried beans, and compare to the same type of bean that has soaked overnight (or let children see you soak them in water and check on them the following day to compare).
  - Ask children if they can remember any meals that have legumes.
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- Extend (small group): 10 minutes and additional time to secure the instrument.
  - Allow children to decorate a small water bottle or toilet paper tube with stickers or markers.
  - Have children pour about ½ cup legumes through a funnel and into a small, empty water bottle or toilet paper tube that has been taped shut on one end.
  - Seal water bottle with hot glue, or close other end of toilet paper tube with a staple or tape. Keep hot glue gun out of reach of children.
  - Once noise makers are safe to handle, host a parade around the classroom with their new instruments. Encourage students to march, hop, gallop, tiptoe, and practice other gross motor skills while shaking their instrument.