

# Literacy Connection

## STEM Exploration

### Sequencing (Pre-Algebra Sequence and Extended Patterns)

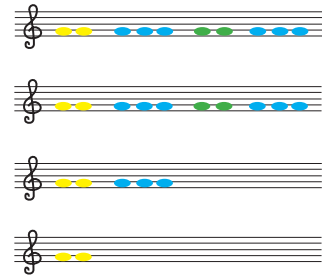
**Goal:** Recognize, describe and extend patterns, such as sequence of sounds; translate from one representation to another\* (NCTM Standards).

#### Activity: Chamaca Song Rhythm

Sing the following Chamaca song: *1-2-cha-cha-cha-, tras-tras, cha-cha-cha*. Repeat several times, adding sounds and movement and invite the children to join in. Create with children simple repeating patterns using claps, foot stomps and taps. Example: 1-2 can be claps; cha-cha-cha can be stomps; tras-tras can be pats.

Tell the children that these sounds remind us of music they will have to remember as musical patterns. Ask how we could remember them. Guide children to write music for the song.

Model on a dry erase board or chart paper, then model one of the examples using the music paper and colored dots. On the music paper, write the music to the song: two yellow dots for clap, clap (1-2); three blue dots for stomp, stomp, stomp (cha-cha-cha); two green dots for pat, pat (tras-tras); and again two yellow dots for clap, clap (1-2); three blue dots for stomp, stomp, stomp (cha-cha-cha); and two green dots for pat, pat (tras-tras). Continue with the pattern and ask children to provide the sequence.



#### Materials

- Music paper
- Colored adhesive dots
- Dry erase board or chart paper
- Marker

### Comparing Facts (Birds and Other Animals)

**Goal:** The students will acquire conceptual knowledge by observing, describing and discussing living things, properties, relationship and processes.

#### Activity: T-Chart

Ask...

- Do all birds fly?
- Why can't they fly?
- Do all animals with wings fly? If not, what can they do instead?
- How do birds fly?
- Why can't we fly?

- ¿Vuelan todos los pájaros? ¿Por qué algunos no pueden volar?
- ¿Vuelan todos los animales que tienen alas? Si no pueden, ¿qué pueden hacer para moverse?
- ¿Cómo vuelan las aves?
- ¿Por qué los humanos no pueden volar?

#### Materials

- Various weights of paper
  - Fan
- See resource at end of this unit.

#### Note

Use paper with various weights and a fan to demonstrate the effects of weight on flying.



Using the T-Chart provided, compare flying birds to ostriches, chickens and penguins. Brainstorm with children the reasons these birds do not fly. Point out body size, weight and wing span. Encourage them to make inferences.

Think of each characteristic. What affect do the size, weight and wingspan have?

Piensen en estas características. ¿Cómo afecta el tamaño, peso y extensión de alas?

T-Chart

Chickens	Penguins	Ostriches
Wing span is 26-32 inches (with a yard stick, show children how long that is)	Wing span is 30-35 inches (with a yard stick, show children how long that is)	Wing span is 6.6 feet (with a yard stick, show children how long)
Body size 10-14 inches Weight 4-8 pounds	Body size 16-48 inches Weight 60-80 pounds	Body size 66-113 inches (5.5-9.4 feet) Weight 200 - 350 pounds

T-Tabla Gráfica

Gallinas	Pingüinos	Avestruces
Extensión de las alas 26-32 pulgadas (con una, enseñe a los niños cómo medir)	Extensión de las alas 30-35 pulgadas (con una yardas, enseñe a los niños cómo medir)	Extensión de las alas 6.6 pies (con una yardas, enseñe a los niños cómo medir)
Tamaño del cuerpo 10-18 pulgadas Peso del cuerpo 4-8 libras	Tamaño del cuerpo 16-48 pulgadas Peso del cuerpo 60-80 libras	Tamaño del cuerpo 66-113 pulgadas (5.5-9.4 pies) Peso del cuerpo 200-350 libras

### Size Comparisons

**Goal:** Begin to make size comparisons between objects; and describe similarities and differences between objects.

#### Activity: Learning About My Body

Read aloud *Conociendo el Cuerpo ~ Learning About My Body* from the *Semillitas de aprendizaje* Math Set (Serie de matemáticas). As you read, have the children point to the body parts described on each page.

