Ohio’s Learning Standards for Science

K.ESS.1: Weather changes are long-term and short-term. Weather changes occur throughout the day and from day to day. Air is a nonliving substance that surrounds Earth and wind is air that is moving. Wind, temperature and precipitation can be used to document short-term weather changes that are observable. Yearly weather changes (seasons) are observable patterns in the daily weather changes. WW

K.ESS.2: The moon, sun and stars can be observed at different times of the day or night. The moon, sun and stars will appear in different positions at different times of the day or night. Sometimes the moon is visible during the night, sometimes the moon is visible during the day and at other times the moon is not visible at all. The observable shape of the moon changes in size very slowly throughout the month. The sun is visible only during the day. The sun’s position in the sky appears to change in a single day and from season to season. Stars are visible at night, some are visible in the evening or morning and some are brighter than others. EF

K.PS.1: Objects and materials can be sorted and described by their properties. Objects can be sorted by the properties of the materials from which they are made. Some of the properties can include color, size and texture. EF, KS

K.PS.2: Some objects and materials can be made to vibrate to produce sound. Sound is produced by touching, blowing or tapping objects. The sounds that are produced vary depending on the properties of objects. Sound is produced when objects vibrate. MZ

K.LS.1: Living things have specific characteristics and traits. Living things grow and reproduce. Living things are found worldwide. GU

K.LS.2: Living things have physical traits and behaviors, which influence their survival. Living things are made up of a variety of structures. Some traits can be observable structures. Some of these structures and behaviors influence their survival. GU
Energy Factory
Ball Refinery
1. Answers will vary
2. Size
3. Answers will vary
Follow the Sun
1. Answers will vary

Water Works
Cloud Pusher
1. No
2. Yes
3. Answers will vary.
   Sample answer: I can feel the air when it moves
Hurricane Chamber
1. Answers will vary
2. Answers will vary
Pier 19 Weather Station
1.

Grow U
Bees
1.
2.
3. To fly
4. To defend their hive

Little KIDSPACE
Construction Zone
1. Answers will vary.
2. Answers will vary.
3. Blue block
4. Plastic block
Market and Tree House
1. Answers will vary, including: Soup can, tuna can, baked beans, eggs, plums, etc.
2. Answers will vary, including: Cracker box, milk carton, banana, bread loaf, etc.

Mind Zone
Rhythm Machine
1. Answers may vary
2. Sample answer: Something has to hit the instrument
Energy Factory

Ball Refinery (K.PS.1)
1. Sort the balls into different groups. How did you sort the balls? Circle the best answer.

<table>
<thead>
<tr>
<th>texture</th>
<th>size</th>
<th>color</th>
<th>shape</th>
<th>smell</th>
<th>weight</th>
</tr>
</thead>
</table>

2. Now put some balls in the ball refinery. How did the refinery sort the balls?

<table>
<thead>
<tr>
<th>texture</th>
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</thead>
</table>

3. What do the groups look like after they've been sorted? Draw them below.

Follow the Sun (K.ESS.2)
The sun’s location in the sky changes during the day. Solar panels catch the sun’s light. Move the panels to catch as much sunlight as you can.
Water Works

Cloud Pusher (K.ESS.1)
1. Hold your hand over the cloud pusher. Can you feel anything? yes no

2. Now, have someone else push on the cloud pusher. Keep your hand stretched over the top. Did you feel anything this time? yes no

3. When can you feel the air? Answer with pictures or words.

Hurricane Chamber (K.ESS.1)
1. When air moves, we feel wind. Stand in the hurricane chamber and turn on the wind. What do you feel?

2. Move your paper through the wind. Is it easy or hard to move?

Pier 19 Weather Station (K.ESS.1)
Circle the type of weather that will most likely happen in winter.
Grow U

Bees (1.LS.1, 1.LS.2)

1. What do bees use as their food source? Circle the best answer.

2. Worker bees care for larvae, or baby bees. Where do the workers keep the larvae? Circle the best answer.

3. What do bees use their wings for? Circle the best answer.
   to fly  to swim  to fight

   to be mean  to defend their hive  to suck blood
Little KIDSPACE

Construction Zone (K.PS.1)
Get a big plastic block and a big blue block. Compare the two. Circle your answer for each question.

1. Which block is heavier?  blue block  plastic block
2. Which block is bigger?  blue block  plastic block
3. Which block is softer?  blue block  plastic block
4. Which block is shinier?  blue block  plastic block

Market and Tree House (K.PS.1)
Collect some items from the Market and take them to the slide in the Tree House. Draw or write your answers.

1. What are two items that roll down the slide?

2. What are two items that did not roll as they went down the slide?
Mind Zone

**Rhythm Machine** (K.PS.2)
Experiment with the buttons on the screen to make some sounds.
1. Circle the instrument that sounds the loudest to you.

- Drum
- Cowbell
- Clapper
- Jingle Stick

2. What has to happen to one of the instruments for it to make noise? Answer with words or a picture.