



# Science Learning Packet

## **Grade 3, Week 2:**

### **Weather and Climate**

Suggested science learning activities for SPS students during the COVID-19 school closure.

Seattle Public Schools is committed to making its online information accessible and usable to all people, regardless of ability or technology. Meeting web accessibility guidelines and standards is an ongoing process that we are consistently working to improve.

While Seattle Public Schools endeavors to only post documents optimized for accessibility, due to the nature and complexity of some documents, an accessible version of the document may not be available. In these limited circumstances, the District will provide equally effective alternate access.

Due to the COVID-19 closure, teachers were asked to provide packets of home activities. This is not intended to take the place of regular classroom instruction but will help supplement student learning and provide opportunities for student learning while they are absent from school. Assignments are not required or graded. Because of the unprecedented nature of this health crisis and the District's swift closure, some home activities may not be accessible.

If you have difficulty accessing the material or have any questions, please contact your student's teacher.



## Elementary Science Learning Activity

Materials to accompany

Chapter 1, Lesson 4

Chapter 1, Lesson 5

Chapter 2, Lesson 1

# Grade 3

Week 2



AmplifyScience

## Weather and Climate:

Establishing an Orangutan Reserve

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Hello Families,

We have been thinking of you and hope you and your family are well and safe during this time. Being at home is different than HAVING to be at home and we wanted to offer you instructional opportunities. If we were at school, we'd be in a 3<sup>rd</sup> grade classroom beginning a study on weather and climate. However, since we're all at home, you are welcome to invite family members to join you in these series of lessons. We all know learning is more fun when we share our ideas and learn from one another.

**Amplify Science** is the science program we have been using in some of our classroom this year. It is our officially adopted instructional material for science.

A collaboration between the science education experts at University of California Berkeley's Lawrence Hall of Science and the instructional technology experts at Amplify, Amplify Science was built to empower students to investigate, talk, read, write, think, and argue like real scientists and engineers through investigations of real-world problems and scientific phenomena.

While Amplify Science lessons are designed to be done in the classroom with peers, there are some activities that students can complete at home with your support. To make it as easy as possible to do these activities at home, I am providing you with the following resources:

- **Lesson Overview.** The activities I am sending are all part of larger lessons. The full lesson would be very difficult to do at home, but I have provided the lesson overview so that you have some context for the purpose of the individual activity.
- **Packet for the specific activity in the lesson.** This will provide step-by-step instructions if you wish to guide your students through the activity. Please note, however, that the instructions will only be included for the specific activity I have assigned. Not the whole lesson. Use the space provided to draw and/or write your ideas, you can also include what other family members contribute.
- **Videos to use with the packet.** The Seattle Public Schools' Science Department created this packet to be used with or without the video. We created a series of videos you can access either online or through Seattle's Public television programming on [SPS TV](#) (local channel 26), social media (Facebook and Instagram: @SeattlePublicSchools, Twitter: @SeaPubSchools), and our [SPSTV YouTube channel](#). KOMONews.com will also host on-demand videos under the tab "Lesson Plan" and broadcast on channel KOMO 4.3. These supplemental learning videos feature short segments supporting a variety of subjects and grade levels. All videos will be close captioned on YouTube.

**Should you have the option to use the internet, these are the device requirements.**

**However, you can complete these lessons WITHOUT electronic devices!**

- **Desktops and Laptops** (Windows 7+, Mac OS 10.11+) - *Suggested browsers: Chrome & Safari*
- **Chromebooks** - *Suggested browser: Chrome*
- **iPads that support iOS11.3+** (iPad5+) - *Suggested browser: Safari*

Sincerely,

Scientist Kate and Seattle Public Schools Science Department



## Local Weather Data

Directions:

1. Take your notebook and a pencil outside.
2. Record weather data at about the same time each day.
  - Record the temperature.
  - Check the rain gauge. If it has precipitation, record the amount, dump the water, and put the rain gauge back.
  - Observe the sky and record the cloud cover description.
3. Return to the classroom and add your weather data to the class chart.

### Cloud Cover

**Clear** = no clouds

**Partly cloudy** = some clouds, mostly blue sky

**Mostly cloudy** = many clouds, but still some blue sky

**Overcast** = whole sky covered with clouds

**Foggy** = clouds near the ground so it is hard to see clearly

Date	Time	Temperature	Precipitation	Cloud cover

## Chapter 1, Lesson 4

### Evidence Cards

**Directions:** Cut these cards apart. Read each one and decide if it is a STRONG or WEAK piece of evidence to support your argument about which island would be the best place for the orangutan reserve.

<p><b>Evidence Card 1</b> Arc Island temperature on one day: 96°F</p>	<p><b>Evidence Card 2</b> Arc Island temperature on one day: It was hot.</p>
<p><b>Evidence Card 3</b> Arc Island precipitation on one day: There was a little rain</p>	<p><b>Evidence Card 4</b> Blue Island temperature on one day: 95°F</p>
<p><b>Evidence Card 5</b> Blue Island precipitation on one day: The rain filled two bowls.</p>	<p><b>Evidence Card 6</b> Blue Island precipitation on one day: It was raining.</p>
<p><b>Evidence Card 7</b> Creek Island precipitation on one day: 20 mm rainfall</p>	<p><b>Evidence Card 8</b> Creek Island temperature on one day: An ice cube melted when it was left outside.</p>
<p><b>Evidence Card 9</b> Creek Island precipitation on one day: The rain filled 3 mugs.</p>	<p><b>Evidence Card 10</b> Creed Island precipitation on one day: There was a lot of rain.</p>
<p><b>Evidence Card 11</b> Blue Island precipitation on one day: 38 mm rainfall</p>	<p><b>Evidence Card 12</b> Creek Island temperature on one day: 86°F</p>
<p><b>Evidence Card 13</b> Orangutans live in some of the hottest, rainiest places on Earth.</p>	

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Reflecting on Evidence

Directions:

1. List the evidence card numbers for cards with strong evidence for comparing the weather in different places in the left column.
2. List the evidence card numbers for cards with weak evidence for comparing the weather in different places in the right column.
3. You may list more than one card number in each box.
4. Select one card in each category to answer the questions below.

Strong evidence card numbers	Weak evidence card numbers

A. Choose one piece of evidence that you think is *strong*. **Card #:** \_\_\_\_\_

Why is this strong evidence for comparing weather in different places?

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B. Choose one piece of evidence that you think is *weak*. **Card #:** \_\_\_\_\_

Why is this weak evidence for comparing weather in different places?

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Daily Written Reflection

Make a picture in your mind of what 94°F feels like. How does visualizing this temperature help you understand it?

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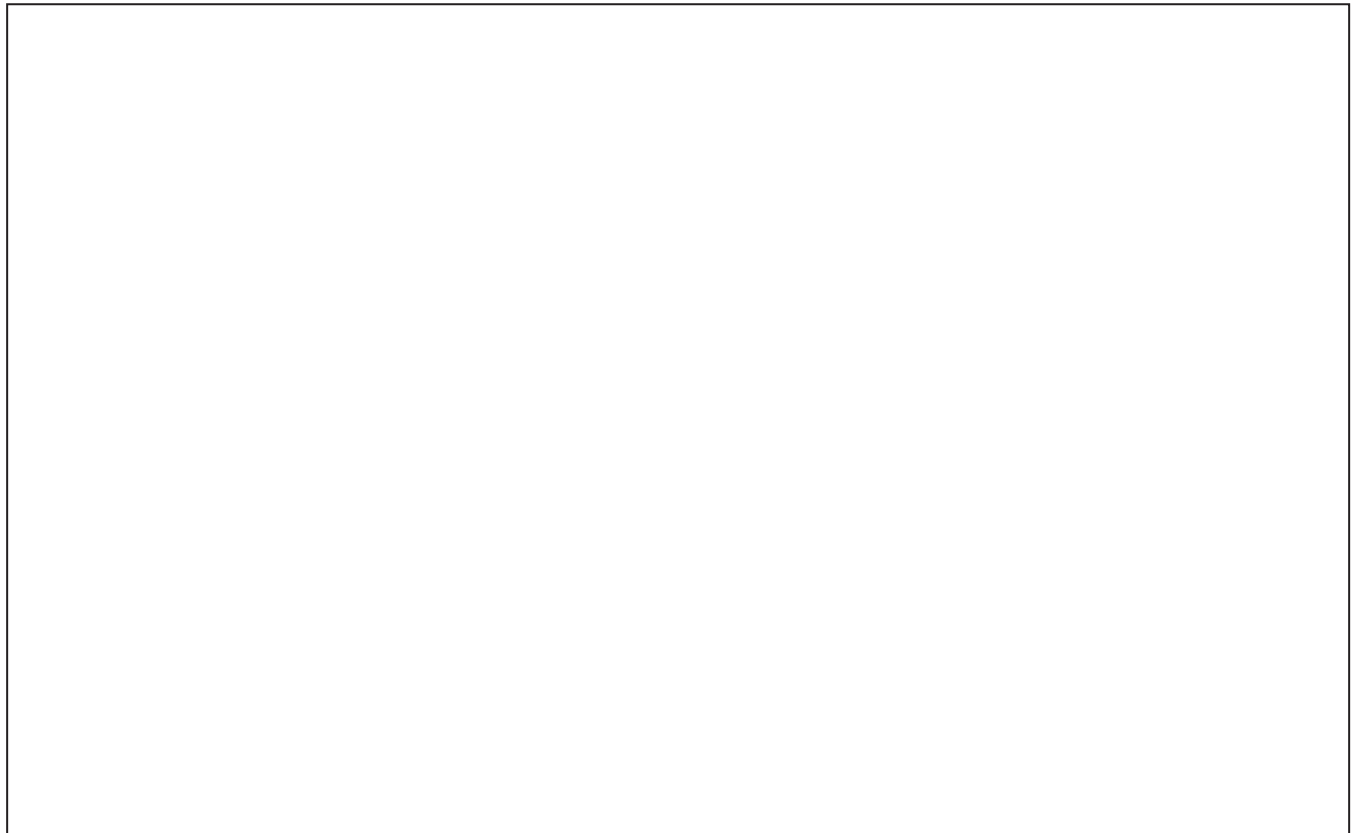
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Make a drawing if it helps you explain your thinking. Label your drawing.





Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Chapter 1: Check Your Understanding

This is a chance for you to reflect on your learning so far. This is not a test. Be open and truthful when you respond.

Scientists investigate in order to figure out how things work. Am I getting closer to figuring out which island's weather is most like the weather where orangutans live?

I understand how to measure temperature and precipitation in such a way that I can make comparisons.  Yes  Not yet

I understand how I can predict the temperature of a place for the next few days.  Yes  Not yet

I understand how I can predict the temperature and precipitation of a place in future years.  Yes  Not yet

I understand what it means for different places to have different climates.  Yes  Not yet

I understand that I can predict future weather events by looking at maps of past weather events.  Yes  Not yet

I understand that scientists can answer some questions but not others and that this depends on the kind of evidence they have.  Yes  Not yet

What are you still wondering about weather or climate?

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Daily Written Reflection

Meteorologists predict the weather for the next few days. How do you think they do this?

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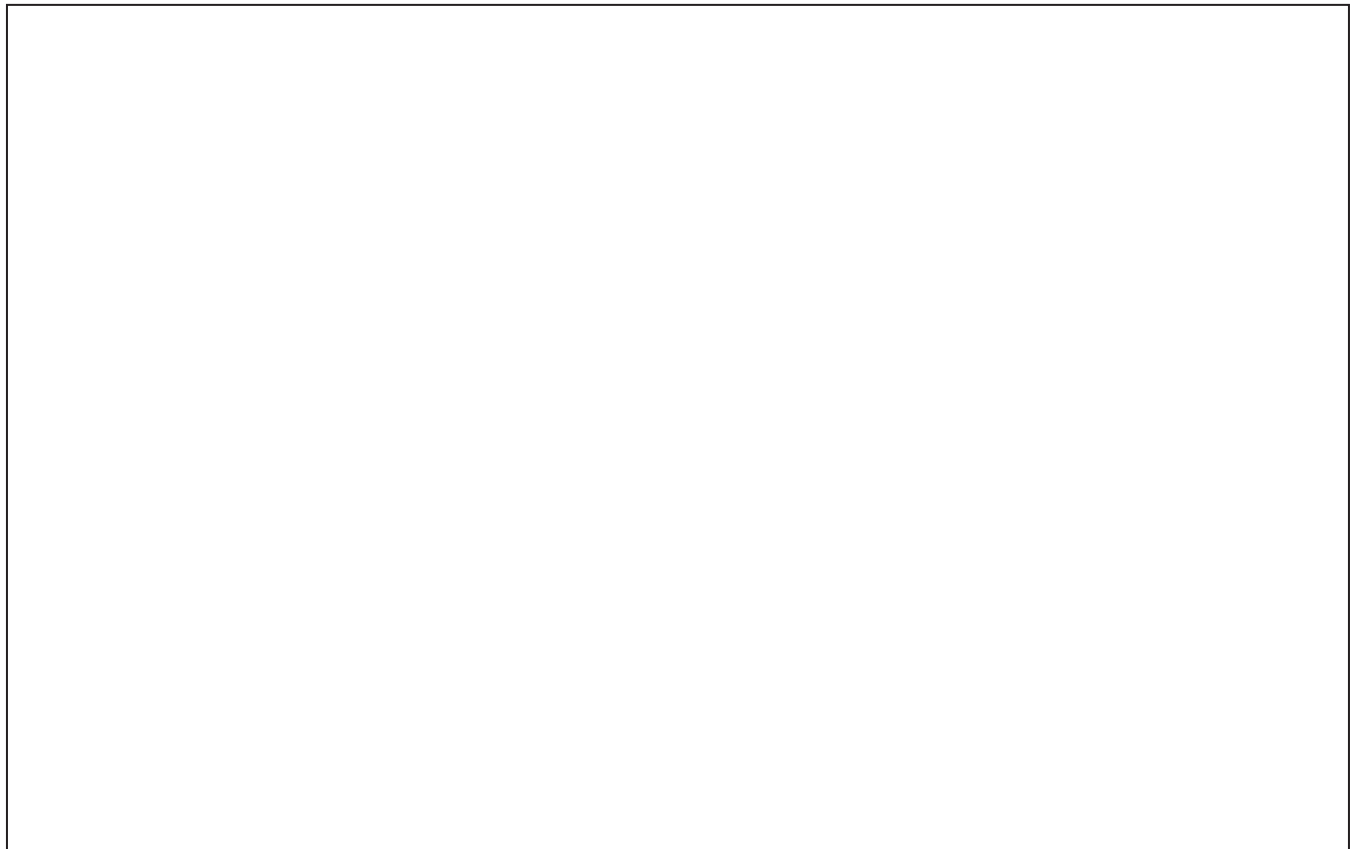
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Make a drawing if it helps you explain your thinking. Label your drawing.



## Graphing Orangutan Heights

Directions:

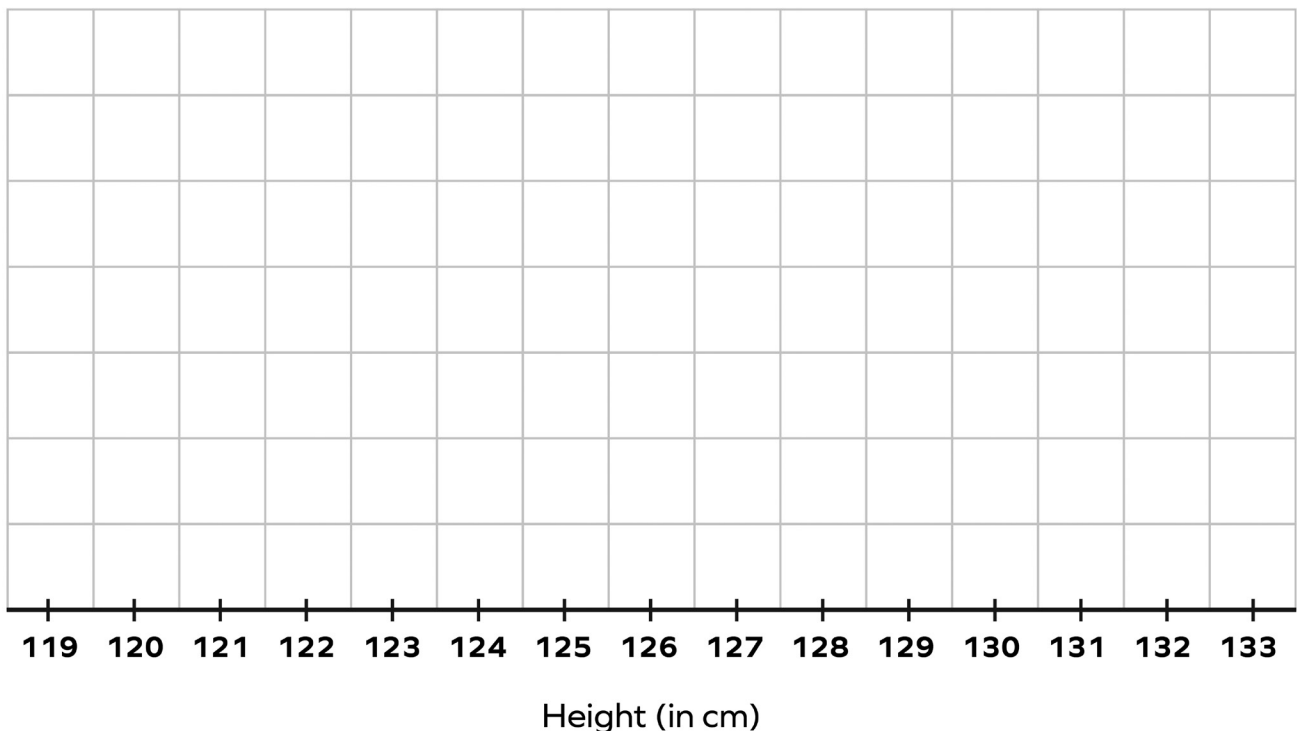
1. Create two line plots. Use the data from the board.
  - Copy the Female Orangutan Heights line plot. For each female orangutan, write an "X" in the box above its height in centimeters.
  - Copy the Male Orangutan Heights line plot. For each male orangutan, write an "X" in the box above its height in centimeters.
2. When your graphs are complete, answer the question.

Question: What do you notice when you compare the height of female orangutans to the height of male orangutans?

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### Female Orangutan Heights



Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Graphing Orangutan Heights (continued)

### Male Orangutan Heights

