



# Science Learning Packet

## Grade 7:

# Populations & Resources, Lesson 1

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

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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.



**Grade 7 Science Learning Activity**  
**Populations & Resources Unit**  
**Lesson 1 Optional Instructional Materials**

AmplifyScience



# Populations and Resources:

Stability and Change in Populations

Investigation Packet

Hello Families,

We hope you and your family are well and safe during this time. During this unprecedented out-of-school time, the SPS middle school science team will be offering instructional opportunities for students that align with the district's adopted middle school science instructional materials. **This work is optional and non-graded.**

This investigation packet is the first part in a series of district-aligned lessons about **Populations and Resources**, a 7th grade life science unit developed by AmplifyScience. While Amplify Science lessons are designed to be done in the classroom with peers, there are some activities that students can complete at home. In this packet you will find activities to accompany lessons 1 of the unit. **Accompanying lesson videos will be aired on SPS TV and posted the SPS webpage under Grade 7**, however this packet can be used with or without the accompanying video.

The videos can be accessed 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. For more information regarding the SPS TV broadcast schedule and to find the videos, please visit the following website: [https://www.seattleschools.org/departments/media\\_operations\\_center\\_sps-tv/broadcast\\_schedule](https://www.seattleschools.org/departments/media_operations_center_sps-tv/broadcast_schedule)

For students who have access to the internet and the following devices and browsers may wish to log-in to their AmplifyScience account from home are welcome to do so. See below for guidance on which browser

- **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,

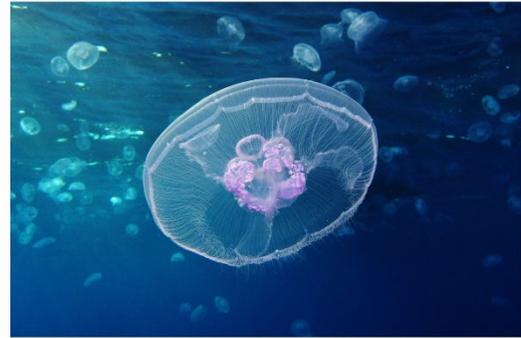
Seattle Public Schools Science Department



## Lesson 1

The Arctic Ocean moon jelly population is **increasing** at a rapid rate. Ecologists that study these moon jelly populations are concerned.

You will work as a **student ecologist** with Arctic Ocean Research Center to find out how this mysterious population explosion happened.



moon jellies drifting underwater

**Ecologist:** An ecologist is a scientist who studies interactions of *organisms* (living things) with one another and their environment.

## **Moon Jellies Background Information**

Moon jellies got their name because of their pale, round bodies, which look like the full moon. Unlike many types of jellies, moon jellies do not have long tentacles for catching food. Instead, they trap zooplankton (ZOH-plank-tun)—tiny animals floating in the water—on the sticky undersides of their bell-shaped bodies. These jellies do sting the zooplankton they catch, but they need only a mild sting because the zooplankton are so small. The sting of a moon jelly is harmless to humans.

Moon jellies can move themselves through the water by squeezing their bodies in and out, but they are not strong swimmers. Most

of the time, they let water currents move them from place to place. These jellies are seldom seen alone: they usually appear in huge groups of hundreds or even millions of jellies. Gathering in groups may provide some protection from predators such as sea turtles.

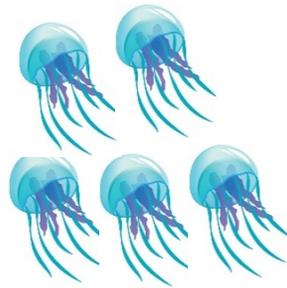
Another reason that moon jellies gather in large groups is their method of reproduction. Jellies never actually pair up and mate—instead, males send out sperm, letting water currents carry the sperm to nearby females. The females produce dozens of eggs, protecting the eggs with their bodies as they develop.

### **Initial Model:**

- **Population:** a group of the same type of organism living in the same area
- **Ecosystem:** all the living and nonliving things interacting in a particular area

What do you think caused an **explosion** of jelly fish **population** to occur? Why are the Arctic Ocean moon jellies increasing at such a rapid rate?

***Draw or write your initial ideas on the next page:***



Questions:

Share your initial ideas with someone in your family and get a sign off: \_\_\_\_\_

Did they agree/ disagree? Did they have any ideas that you wanted to add to your thinking?