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HarperCollins Children's Books / Katherine Tegen Books

Through simple text and line art drawings, discover how beaver families live and work together, using their engineering skills to survive within a pond ecosystem.

Possible Standards to address:

- Use observations to describe patterns of what plants and animals (including humans) need to survive. [K-LS1-1](#)
- Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. [K-ESS3-1](#)
- Make observations of plants and animals to compare the diversity of life in different habitats. [2-LS4-1](#)
- Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [3-LS4-3](#)
- Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. [3-LS4-4](#)

Show students a photograph such as this or a time lapse [video of beavers building](#) a dam.



https://www.youtube.com/watch?v=u2pj4wZ5R_A

- Ask them to do a notice and wonder in their science notebooks or use the Notice and Wonder sheet.
- Have student use pictures, words, and symbols to draw a model trying to figure out the how and why the beaver is building the dam starting with the trees.
- Watch this [video](#) of the beaver building a lodge.

<https://www.youtube.com/watch?v=iyNA62FrKCE>

Now is the time to collect the student questions.

Share the following prompt, “Think about your notice and wonder, the videos, and your models, I want you to write down what questions you have about the beavers’ bodies, building of the ponds, building of the lodges, their actions in their environment. Remember we are trying to answer the question How Do Beaver’s Thrive and Survive in Their Environment.”

- Science Notebook- list questions
- Chart paper- two students work on a piece of chart paper.
- Sticky notes- one question per sticky. Students build driving question board.
- Build engineering investigations from student questions.

The level of teacher involvement dependent on grade level.

- The student questions determine the investigation. One problem to consider posing “*If you were a beaver and had to build your home, what would your lodge and dam look like?*”

After students have completed their project, read the book aloud engaging students in an interactive read aloud. The interactive read aloud includes:

Asking Questions to Engage Students Throughout the Reading

- Turn and Talk
- Turn and Learn (each partner has 2 minutes to talk)
 - Listen carefully! You are responsible for finding out what your partner is thinking.
 - Learn your partner’s thoughts by asking questions that begin with “What, how, what do you think about? ... ?” (Prompt dependent)
 - Share your partner’s thoughts with the whole group.
 - Add new ideas after your partner shares your ideas with the group.
 - Quick whole group share out (if time)

Possibilities to Build On

[Beavers Nature’s Engineers](https://docs.google.com/viewer?url=https%3A%2F%2Fwdfw.wa.gov%2Fsites%2Fdefault%2Ffiles%2F2021-02%2Fbeavers_natures_engineers_lesson_plan.pdf), Grades 3-5 Washington Department Fish and Wildlife

https://docs.google.com/viewer?url=https%3A%2F%2Fwdfw.wa.gov%2Fsites%2Fdefault%2Ffiles%2F2021-02%2Fbeavers_natures_engineers_lesson_plan.pdf

[Beavers Adaptations](#) Grades K-2 , Lower Columbia Estuary Partnership

<https://docs.google.com/viewer?url=https%3A%2F%2Fwww.estuarypartnership.org%2Fsites%2Fdefault%2Ffiles%2FBeaver%2520Kit%2520Lesson%2520Plan%2520%2B%2520Description.pdf>

