**Part 1. Brainstorm a Phenomenon to Observe**

As a family, think about your neighborhood ecosystem. You can use the prompts below to help you identify an event or relationship - a phenomenon - that you might observe.

1. What are some things you have noticed or wondered about in your neighborhood this season? Make a list - the goal is to think of as many different things you could observe.
   1. What have you noticed about interesting species - animals, plants, bugs, fungi, etc? What have you noticed about interesting kinds, such as rocks, water, sunlight, etc.?
   2. What have you noticed about interesting events taking place in your neighborhood ecosystem? For example, do you notice tapping noises in trees, plants blooming, or water flooding in places after a rainstorm?
   3. What do you expect to see in this season, such as rainstorms in the spring, long shadows in the summer, low fog in the fall, or snow in the winter?
2. Use the checklist below to think about which of the things you listed above could be the focus of your observations the next time you go outside on a walk.

|  |  |  |  |
| --- | --- | --- | --- |
| Checklist | Example of a Phenomenon that is easier to study | Example of a Phenomenon that is harder to study | Your phenomenon! |
| * easily located in a place or a few places close to home; | “Dead leaves in a pile in our apartment courtyard.” You can observe what is under and around the leaves at any time of year. | “We love to hike to a waterfall a few hours away. We want to observe what happens to rocks in the falls” - while it would be fun to observe here, this can be challenging to observe frequently. |  |
| * quick to find given the season, climate, and location; | “Spiders around our windows in the late summer.” If you live in a temperate climate, spiders are easily found in late summer. You can closely observe their behaviors and relationships. | “We want to observe pollinators in the winter.” Pollinators would make great observations in the spring, summer, and early fall, but are difficult to observe in the winter. You can observe decomposing leaves, worms, and many birds in the winter! |  |
| * readily observable with our senses | “Puddles in the potholes in our street.” You can observe how long it takes for the puddle to fill with rain, where the water goes after rain, and how animals and people interact with the puddle. Remember to be safe and always observe with an adult in the street! | “We want to observe a dying star.” This is a great phenomenon, but would make a better research project that you can do online. |  |
| * raises interesting wonderings, questions, and excitement. | “There are squirrels on our block.. We are curious about their behavior.” Observing animals’ behaviors is a great way to hone your observing skills and get excited about scientific ideas. | Any phenomenon can be hard to study if it doesn’t excite you or make you wonder. While some scientists study things they are less interested in, they often do it in pursuit of explaining a bigger question that does excite them. |  |

## **Part 2: Make Your Prediction**

## Our family decided to observe *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

## *In the space below, draw or write about what plan to observe the next time you go outside. Use symbols, pictures, and words to explain your thinking. Think about the following questions:*

## *Where do you think you will find your phenomenon and why?*

## *What relationships do you think your phenomenon has in this season? Who or what are the relationships with and why?*

## *What do you think happens to your phenomenon in a different season and why?*

|  |
| --- |
|  |