



A Lesson Plan Grade 3-5

But Why is led by you, kids! Kids all over the world send us questions, and we find the answers. We've created these learning units to be used in a classroom setting or at home. Watch the video first and then use this guide to deepen your understanding of what you've learned. Find more episodes at butwhykids.org.



But Why: Adventures! Northeast Nature | NOVEMBER: SOARING

DRIVING QUESTION:

What features in an environment make it easier for us to move in and through that environment?

Objectives:

Students will

- Be able to demonstrate their understanding of patterns in the environment that help animals move from one place to another.
- Be able to identify the corridors and passageways in their school or community that make safe travel possible.

Activities:

1. Build paper airplanes. Have students experiment with building multiple paper airplanes and flying them. Have them graph and chart how each plane travels, including distance and air time. (Template on page 2)
2. Students can change the amount of bend in the wings (both the angle of the wings in relation to the body of the plane and the amount of curve on the front edge of the wings) to vary how it flies.
3. Students can also experiment with cutting flaps in the back wing to graph the flight of various planes and make predictions.

VELS (K-3) SC 1:1, SC ED 4:1, SS 1:1 Learning Targets Grades 3-5

NGSS

4-LS1-1

3-PS2-2



Learning Targets: NGSS 4-LS1-1, 3-PS2-2,
VELS SC 1:1, SS 1:1 K-3



BUT WHY

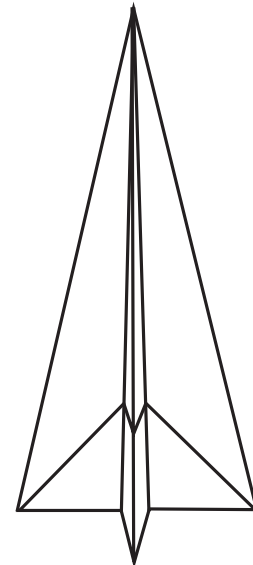
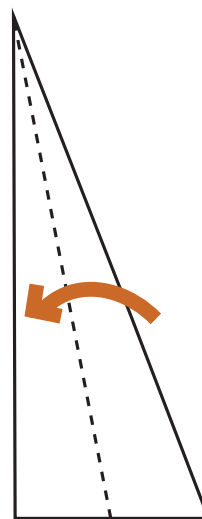
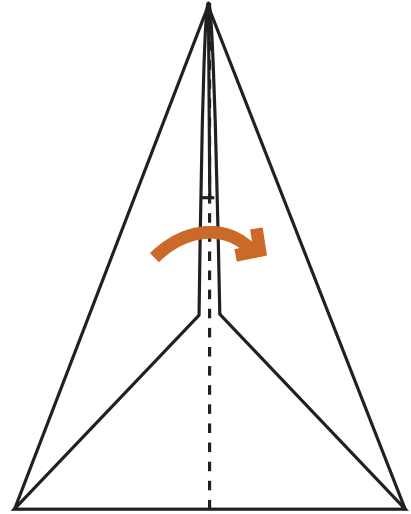
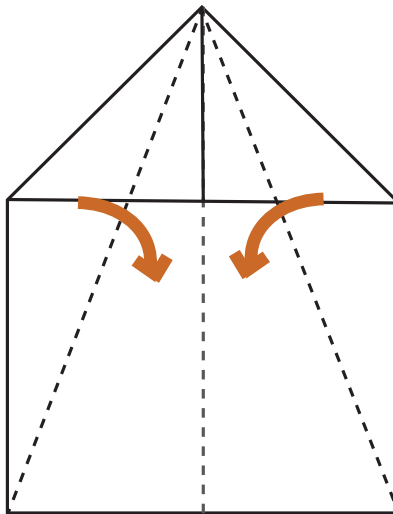
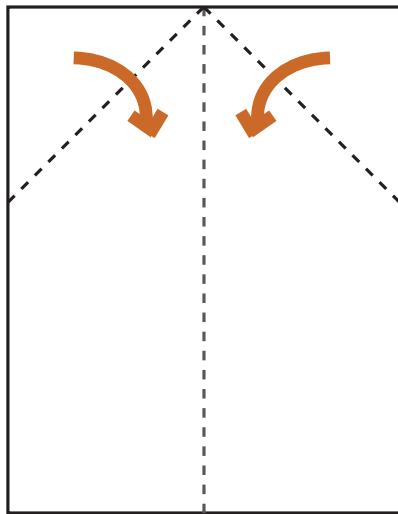
Make a Paper Airplane

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TEST OUT FLIGHT BY MAKING YOUR OWN PAPER AIRPLANES:



Materials needed:

- Paper and scissors
- Ruler or tape measure
- Lab notebook



BUT WHY

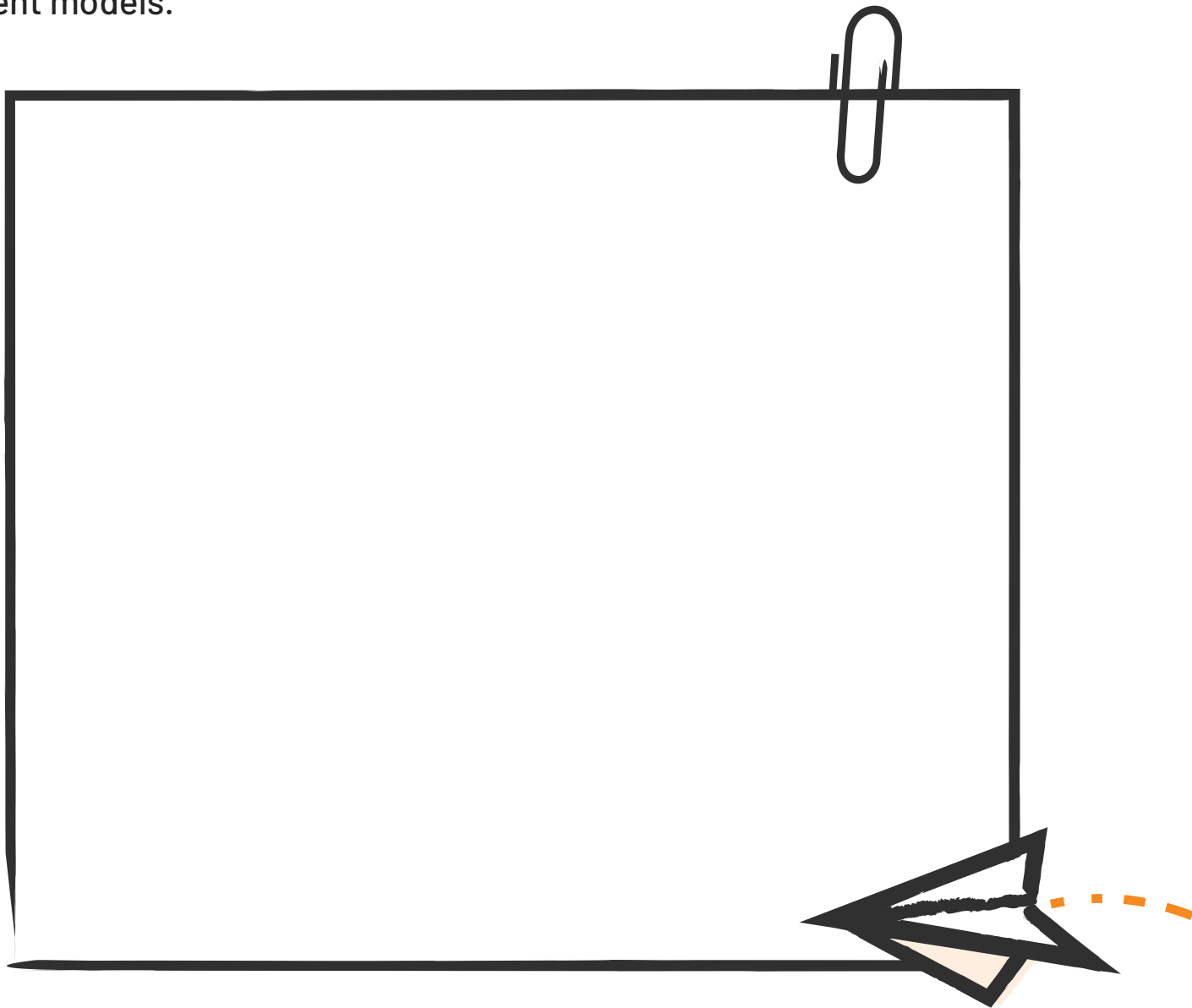
Watch & Doodle

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WATCH & DOODLE: Make predictions about the flight patterns of different models.





Watch & Connect

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WATCH & CONNECT:

Draw or write in the boxes.

K (Know). What do you know about soaring?

W (Want to know). What do you want to know about soaring?

L (Learn). What did you learn about soaring?

Draw a silhouette (shadow) of a bird flying or a picture of you soaring!

Maybe draw yourself as a superhero soaring!



Feelings: Connections

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SOCIAL EMOTIONAL CONNECTIONS: We are all connected.

How do you move through the world? What makes it easier for you to move? How can we make it easier for everyone to move through our community?

Reflect.

List ways that a space can be made accessible to EVERYBODY!



Community: Connections

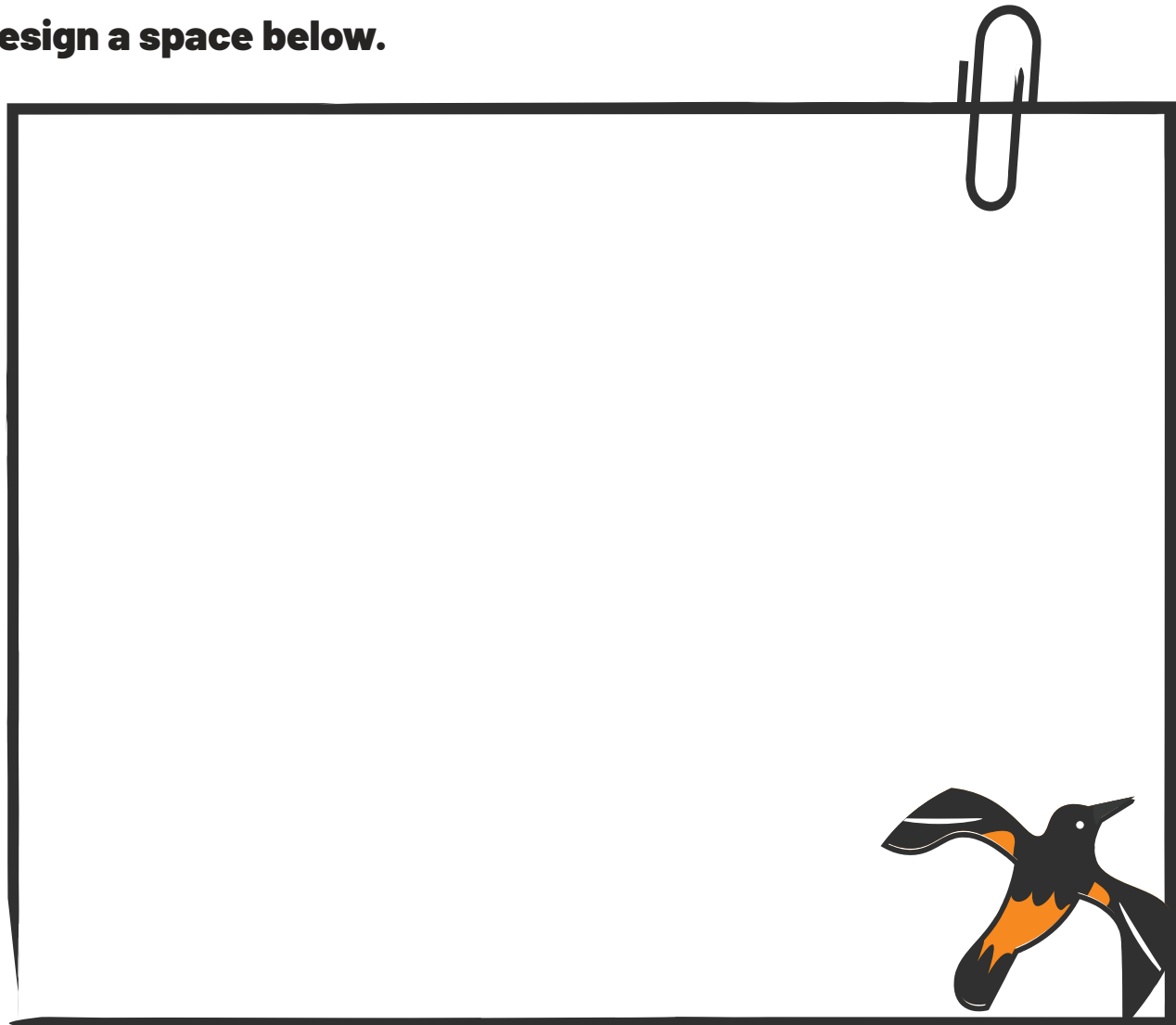


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BIG IDEA: Take a walk outside. How can we improve our neighborhood to make it so everyone can enjoy this outdoor space? What can we do to make it easier for everyone to move in this space?

Redesign a space below.





Thermals

[THUR-mulls] • *noun*

Rising pockets of warm air. When sunlight heats the ground, it warms the surrounding air. Warm air rises. Soaring birds use thermals to lift up into the air.



Updraft

[UP-draft] • *noun*

An upward movement of air that occurs when wind hits an obstacle like a mountain or hill and has to rise to go up and over it. Birds make use of the rising air to get extra lift.



Soar

[SORE] • *verb*

Using air currents to fly. Soaring birds can use natural wind currents to get higher, instead of needing to flap their wings. Soaring helps birds conserve energy.



Raptor

[RAP-tr] • *noun*

A bird of prey. Owls, hawks, falcons, eagles, vultures and kites are all raptors.

••• **What new words did you learn?** Make your own vocabulary cards. •••••

