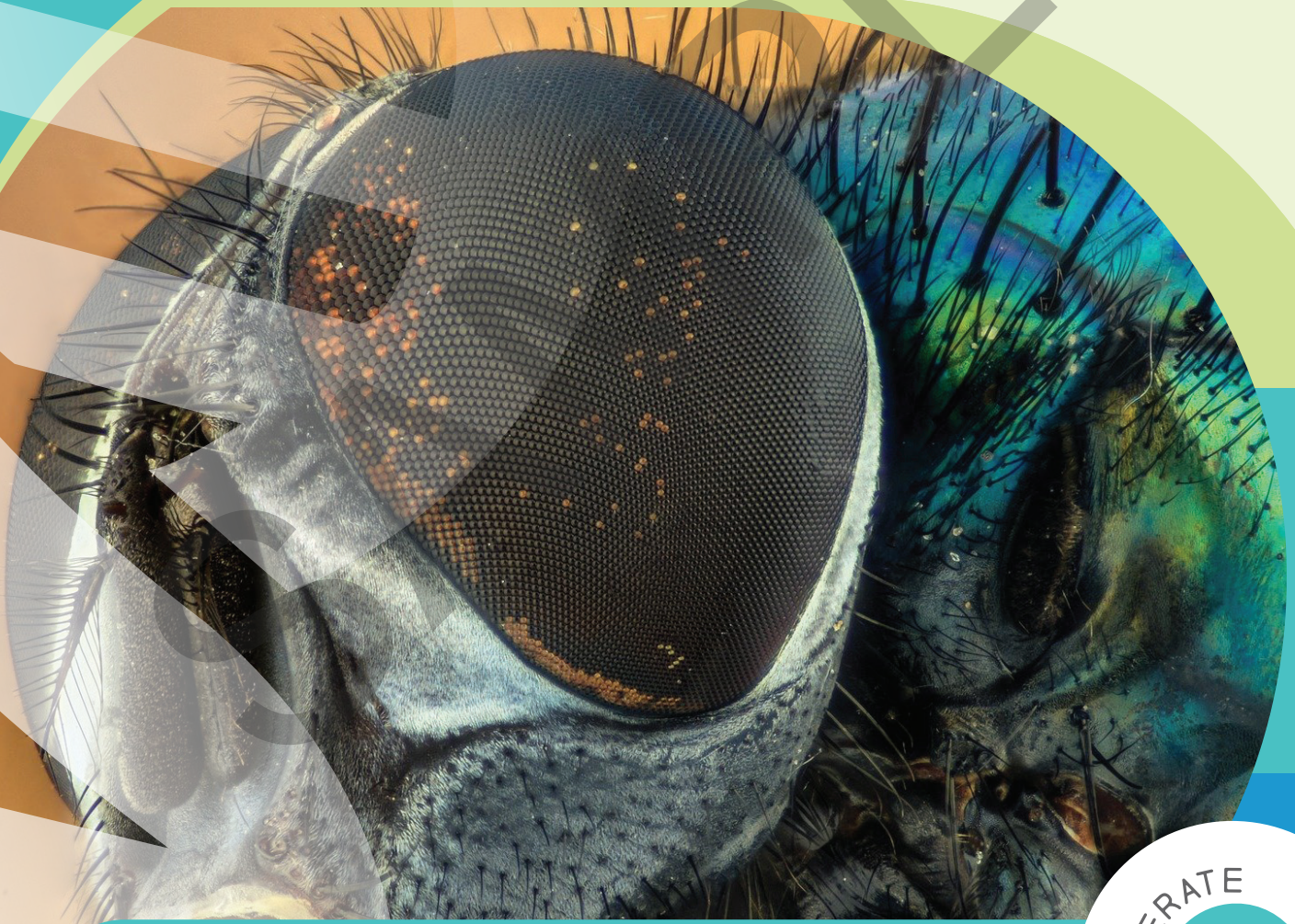


EYE SPY



TEACHER GUIDE

ACCELERATE



PLANNING

Here's a suggested schedule for this kit! The activities should be completed in order, but you can choose when the lessons take place over time. The time required for each lesson may vary.

ACTIVITY INFORMATION	SECTION	TIME REQUIRED	DAY/ LESSON
ACTIVITY 1: ANIMAL EYES Look deep into the eyes of many organisms. Time required: 30 min	<input type="checkbox"/> Whose Eye is Whose?	30 minutes	Day 1
ACTIVITY 2: PARTS OF AN EYE Dissect a sheep eye. Time required: 1 h	<input type="checkbox"/> Eye See You	60 minutes	Day 2
ACTIVITY 3: WHY THE EYE? Model an animal eye and compare it to the real thing. Time required: 2 h 30 min	<input type="checkbox"/> Meaning of Eyes	60 minutes	Day 3
	<input type="checkbox"/> Model Eye		Day 4

Full schedule available with purchase

3

activity

WHY THE EYE?

While there are many similarities among eyes, differences between them help organisms survive in their environments.

3

MEANING OF EYES

CONTENT

- This section introduces your student to three unique eye differences, including pupil shape, iris color, and eye mobility.
- There are seven different pupil shapes vertebrates have – round, vertical (up and down), slit, horizontal (across), horizontal slit, crescent, w-shape, and vertical beaded. Invertebrates have a pseudopupil instead.
- In the “Round Pupils” portion the term peripheral isn’t used as it can be a difficult word to pronounce or understand for students. Instead, the language “around them” is used.
- The following vocabulary terms are defined: contrast, prey, pseudopupil, and top predator.

4

MODEL EYES

PREPARATION AND SUPERVISION

- Students will be making an animal eye model using any four colors of modeling dough.
- Students can choose any animal that has not already been discussed in this kit.
- If your student needs help labeling or thinking of structures of the eye, have them return to the eye dissection information in Activity 2.



WARNING! Contains chemicals that may be harmful if misused.

Do not eat or drink. Wash your hands after use.

WARNING! CHOKING HAZARD - Small parts. Not for children under 3 years.

MULTIPLE AGES AND ABILITIES:

If working with multiple students, encourage each student to make the eye of a different organism. This allows for discussion among students on what they were correct and incorrect about regarding animal eye structures and functions.

Modeling dough can be a fun sensory experience for some, but also a sensation that some students may not enjoy. If your student doesn't enjoy the sensation of working with modeling dough, you can offer them the opportunity to work with a partner. This would allow the student who doesn't enjoy the sensory experience the opportunity to direct the creation and demonstrate knowledge and growth without having to touch the modeling dough.

? **Question 2:** In your own words, explain what “Eyes in the front, like to hunt. Eyes on the side, like to hide.” means.

Answer: Answers will vary.

How to Help: Make sure students are certain that eyes on the side of an organism’s head indicate the organism is a prey species to at least one predator, while eyes in the front of an organism’s head indicate the organism is a predator.

5

activity

OTHER TRAITS FOR SURVIVAL

Beneficial traits are passed down. The traits found in both past and present organisms help us to determine how they were beneficial to past organisms.

LEARNING GOALS:

- ✓ I can show that variation in traits can be influenced by the environment.

SUPPORTIVE SURVIVAL



WARNING! CHOKING HAZARD - Small parts. Not for children under 3 years.

Backbone Science

- In this activity, your student will make two modeling dough animals – one with a paper clip skeleton and one without.
- Students will add dominoes to the back of each animal, one at a time until one modeling dough organism is crushed.
- Your student should find that the modeling dough animal without a paper clip skeleton will be crushed first.
- This experiment introduces the importance of a backbone in the survival of larger organisms.

MULTIPLE AGES AND ABILITIES:

If working with multiple students, you can have each student make two smaller organisms by splitting the modeling dough up into smaller pieces using modeling dough leftover from Activity 3. Another alternative, if working with more than two students, is to break them up into teams and have each team attempt to build the strongest organism.

? (PREDICT) **Question:** How will the paper clips impact the number of dominoes the modeling dough animal can hold on its back?

Answer: Answers will vary.

How to Help: Encourage students to get more detailed by saying one can hold up “more” or “less” dominoes than the other. Instead, have them think about the number of dominoes each can hold up for their response.

	Paper Clip Animal	Non-Paper Clip Animal
Number of dominoes held before collapsing	Answers will vary, but more than the non-paper clip animal.	Answers will vary, but less than the paper clip animal.
Why do you think the animal could hold the number of dominoes?	This animal had a skeleton that supported added weight.	This animal did not have a skeleton to support the added weight.



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Kit	SU-EYESPY
Instructions	IN-EYESPYT
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