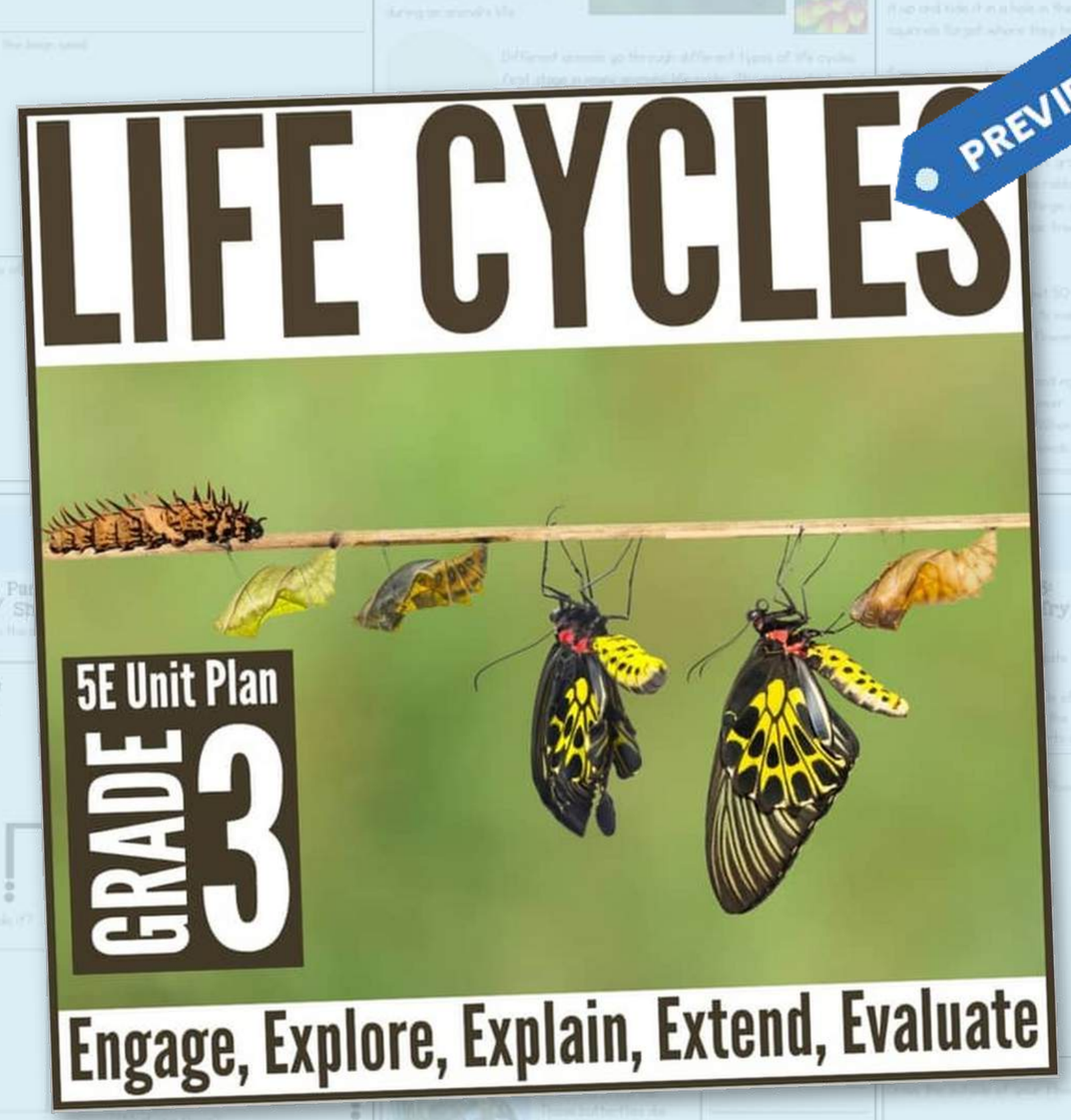


A Complete 5E Science Unit with Lesson Plans

3RD GRADE

LIFE CYCLES

OF PLANTS & ANIMALS

Engage, Explore, Explain, Extend, Evaluate

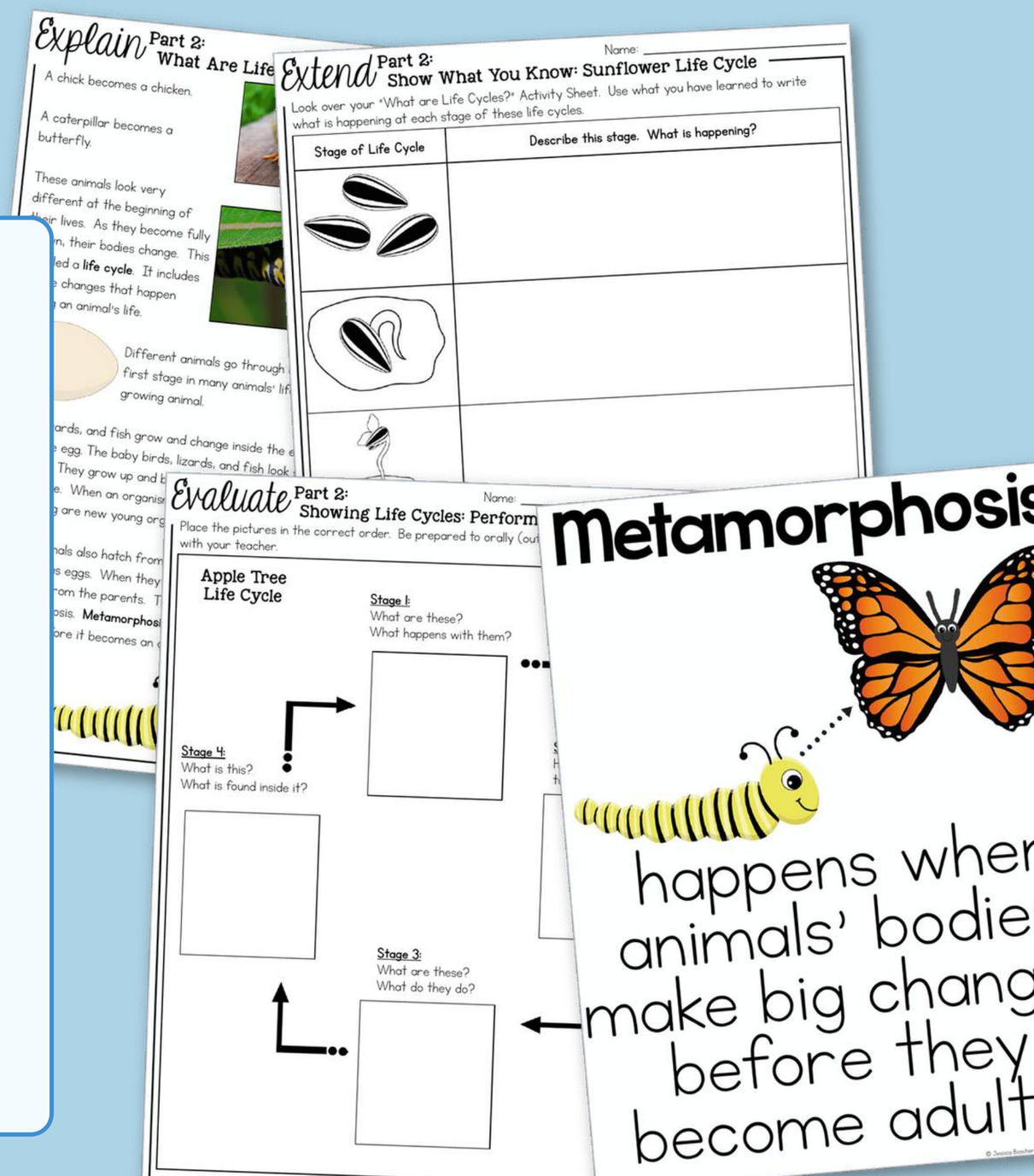
NGSS 3-LS1-1

KEEP SCROLLING TO SEE WHAT'S INSIDE!

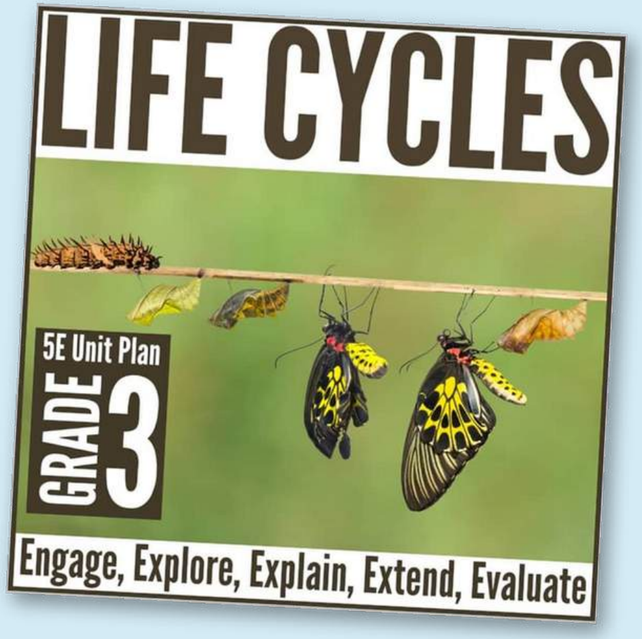
WHAT'S INCLUDED

5E LIFE CYCLES UNIT

- 230+ Page 5E Unit Plan
- Lesson Plans for All 5 Phases
- Teacher Notes and Misconceptions
- Materials Checklist and 4 Timelines
- Plant and Animal Reading Passages
- Seed, Bean, and Flower Investigations
- Vocabulary Cards and Big Idea Posters
- Exit Tickets in 3 Formats
- Performance Assessment
- Answer Keys for Student Pages
- Google Slides and Google Forms Versions



UNIT AT A GLANCE



- Students sprout seeds, compare flowers, and build life cycle wheels.
- Teacher background, lesson plans, and student pages in every phase.
- Aligned to NGSS 3-LS1-1.

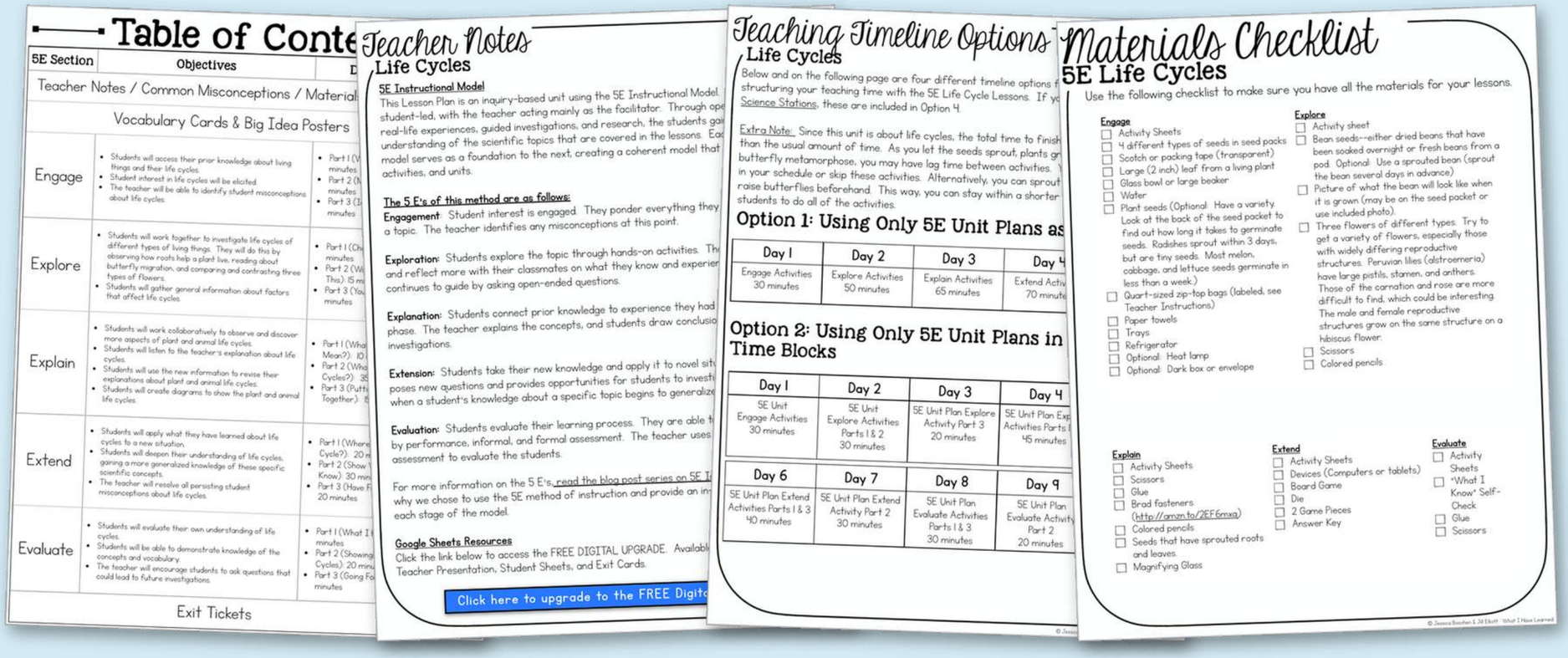
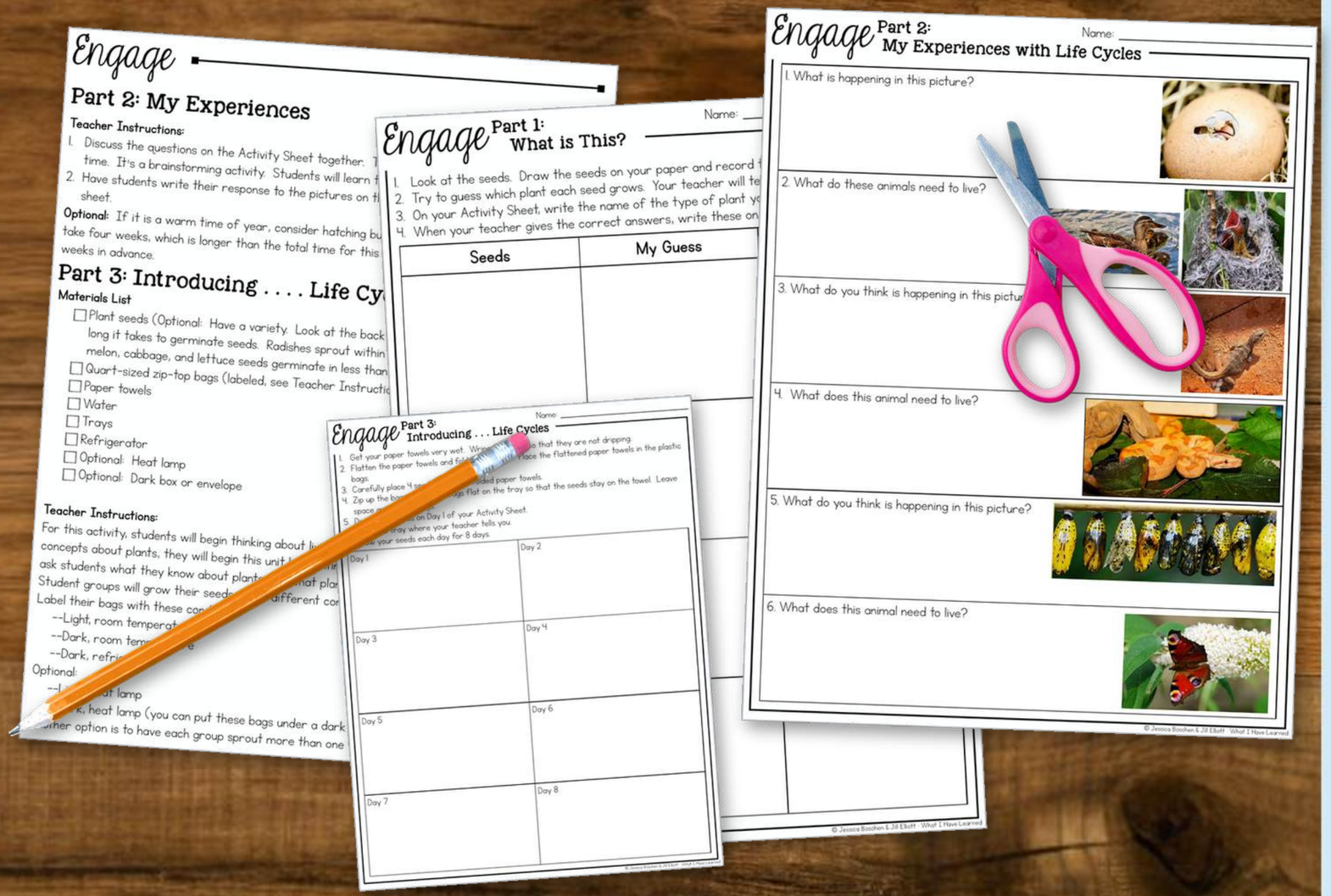


Table of Contents **Teacher Notes** **Timeline Options** **Materials Checklist**

ENGAGE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Spark curiosity with seeds and animals

1 What Is This?

Students look at four kinds of seeds and guess what each one will grow into.

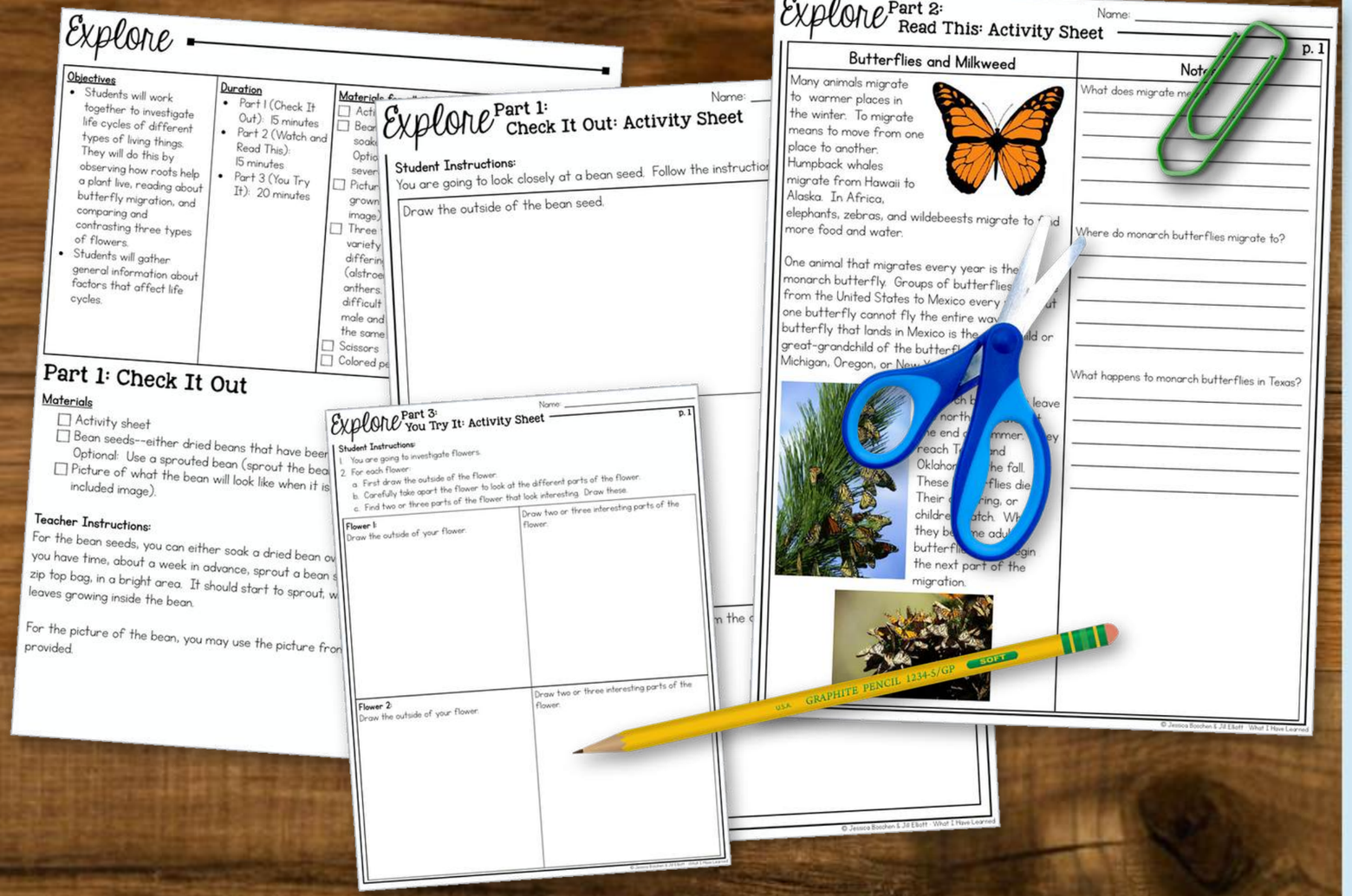
2 My Experiences

Students look at pictures of young animals and write what each one needs to live.

3 Introducing Life Cycles

Students start seeds in bags on wet paper towels and draw what they see each day.

EXPLORE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Investigate beans, butterflies, and flowers

1 Check It Out

Students study the outside and inside of a bean seed and draw what they see.

2 Watch and Read This

Students read about monarch butterfly migration and take notes.

3 You Try It

Students draw three kinds of flowers and look closely at their parts.

EXPLAIN



Teacher background, lesson plans, student pages, and answer key

E E E E E

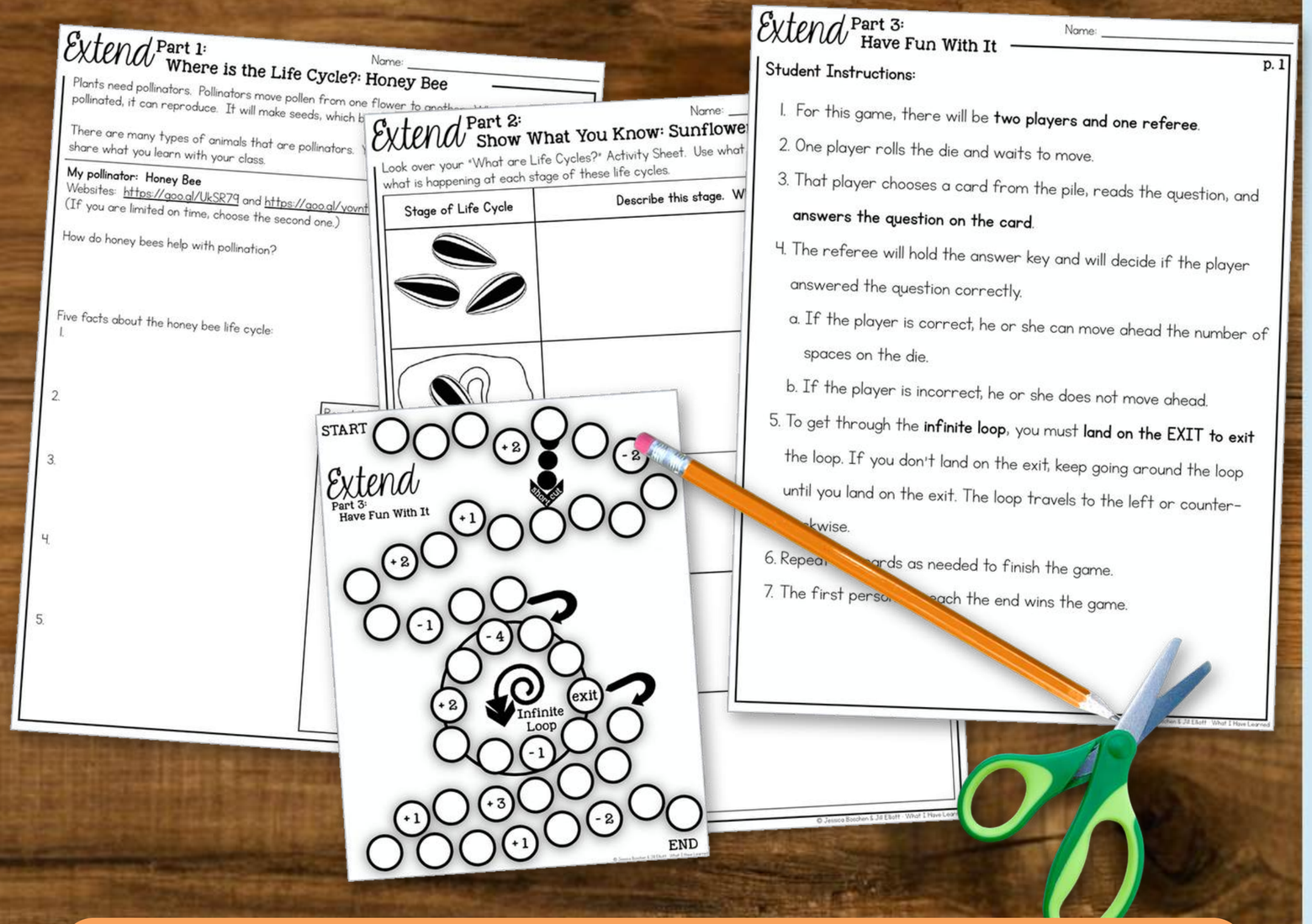
Build explanations from evidence

1 What Does It Mean?
Students study sprouted seeds and decide where the roots and leaves are.

2 What Are Life Cycles?
Students read about animal and plant life cycles and sum up what they learned.

3 Putting It All Together
Students build life cycle wheels with brad fasteners, like the ladybug and watermelon.

EXTEND



Teacher background, lesson plans, student pages, and answer key

E E E E E

Apply life cycles to new organisms

1 Where Is the Life Cycle?

Students research pollinators such as honey bees, bats, and birds.

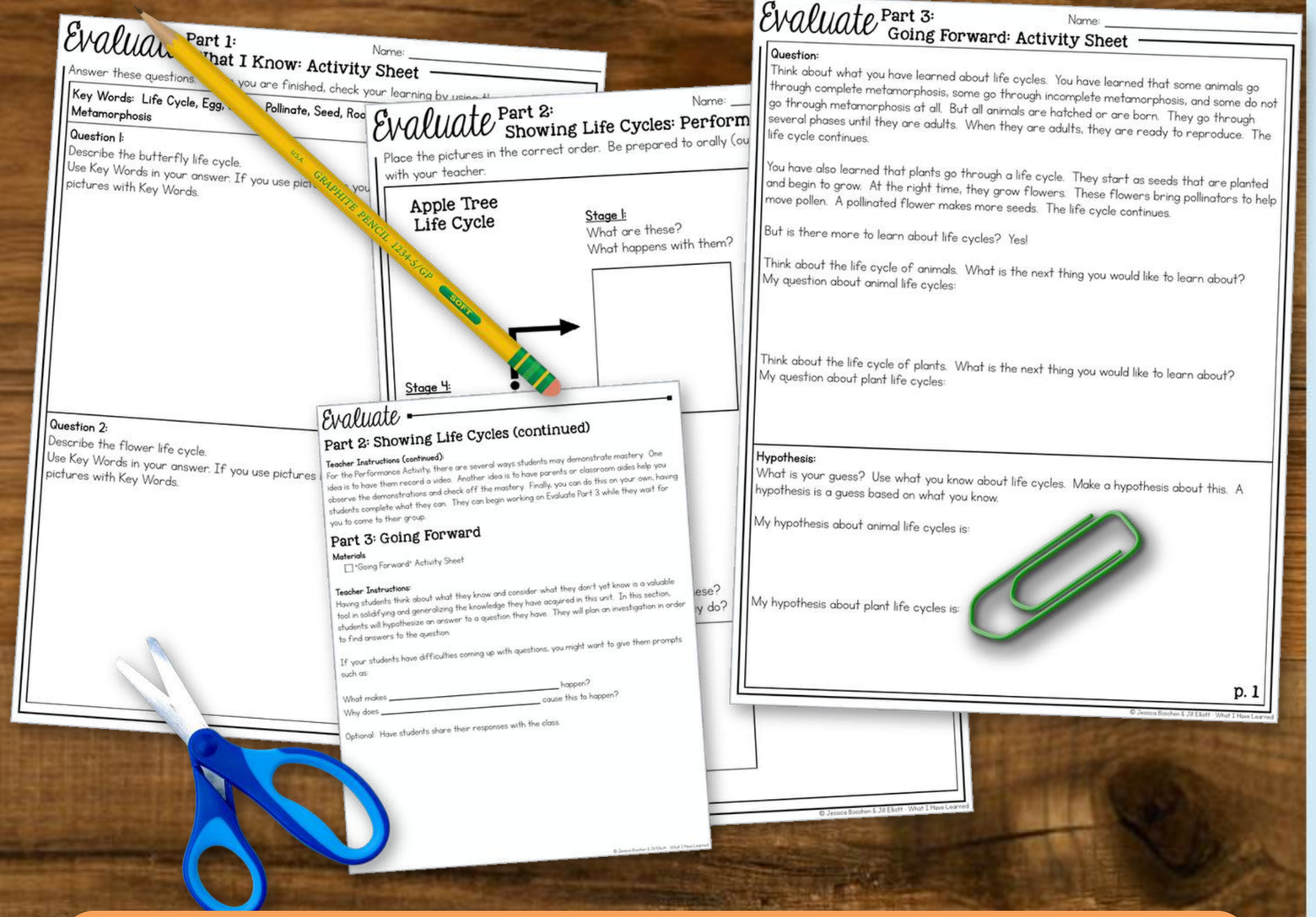
2 Show What You Know

Students describe each stage of the sunflower, fish, and frog life cycles.

3 Have Fun With It

Students play a board game with life cycle question cards and an infinite loop.

EVALUATE



Teacher background, lesson plans, student pages, and answer key

E E E E E

Check understanding with evidence

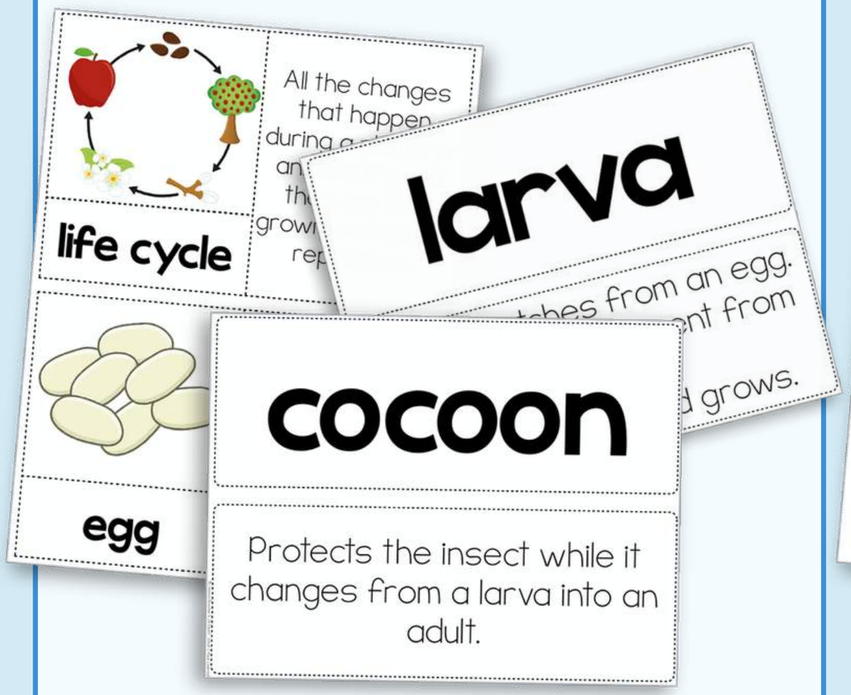
1. **What I Know**
   Students answer questions about life cycles and score themselves with a rubric.

2. **Showing Life Cycles**
   Students show a life cycle in a performance activity and a worksheet.

3. **Going Forward**
   Students write a new question and hypothesis about plant and animal life cycles.

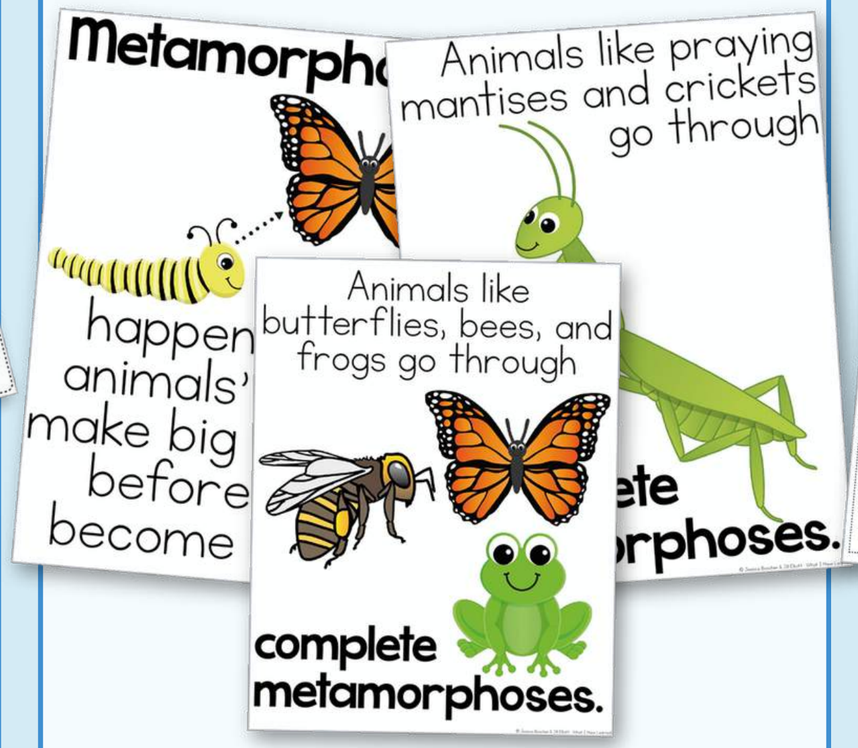
VOCABULARY, POSTERS & EXIT TICKETS

VOCABULARY CARDS



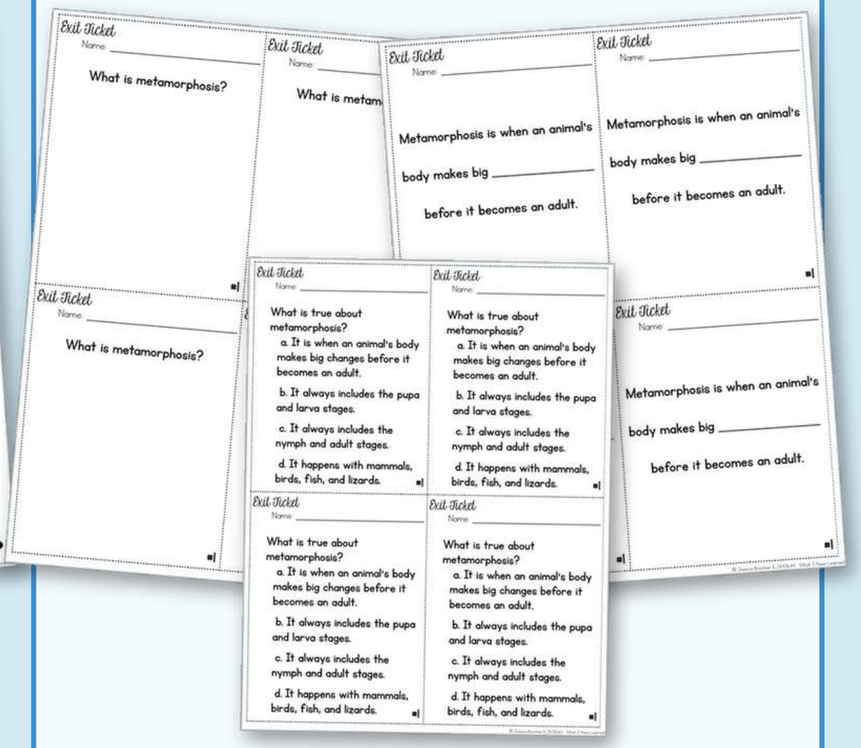
Picture cards and word cards for life cycle, egg, larva, pupa, and metamorphosis.

BIG IDEA POSTERS



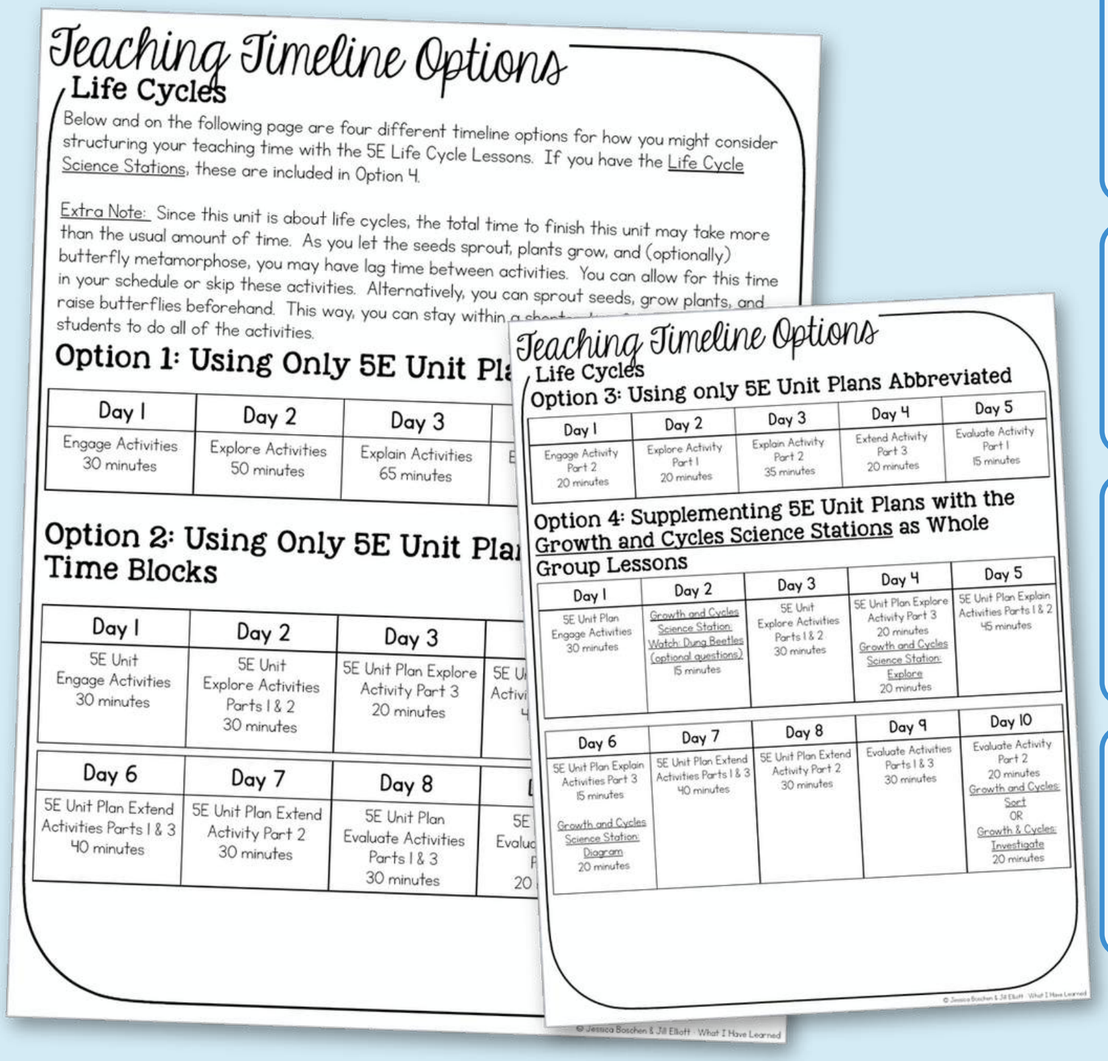
Six posters on metamorphosis, complete and incomplete changes, and how flowers and animals help plants reproduce.

EXIT TICKETS



10 exit tickets, each in short answer, fill-in-the-blank, and multiple choice formats.

WAYS TO USE IN YOUR CLASSROOM



Teaching Timeline Options

Life Cycles

Below and on the following page are four different timeline options for how you might consider structuring your teaching time with the 5E Life Cycle Lessons. If you have the Life Cycle Science Stations, these are included in Option 4.

Extra Note: Since this unit is about life cycles, the total time to finish this unit may take more than the usual amount of time. As you let the seeds sprout, plants grow, and (optionally) butterfly metamorphose, you may have lag time between activities. You can allow for this time in your schedule or skip these activities. Alternatively, you can sprout seeds, grow plants, and raise butterflies beforehand. This way, you can stay within a short
students to do all of the activities.

Option 1: Using Only 5E Unit Pla

Day 1	Day 2	Day 3	
Engage Activities 30 minutes	Explore Activities 50 minutes	Explain Activities 65 minutes	E

Option 2: Using Only 5E Unit Plan
Time Blocks

Day 1	Day 2	Day 3	
5E Unit Engage Activities 30 minutes	5E Unit Explore Activities Parts 1 & 2 30 minutes	5E Unit Plan Explore Activity Part 3 20 minutes	5E U Activ 4

Day 6	Day 7	Day 8	
5E Unit Plan Extend Activities Parts 1 & 3 40 minutes	5E Unit Plan Extend Activity Part 2 30 minutes	5E Unit Plan Evaluate Activities Parts 1 & 3 30 minutes	5E Evaluc P 20

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Teaching Timeline Options

Life Cycles

Option 3: Using only 5E Unit Plans Abbreviated

Day 1	Day 2	Day 3	Day 4	Day 5
Engage Activity Part 2 20 minutes	Explore Activity Part 1 20 minutes	Explain Activity Part 2 35 minutes	Extend Activity Part 3 20 minutes	Evaluate Activity Part 1 15 minutes

Option 4: Supplementing 5E Unit Plans with the Growth and Cycles Science Stations as Whole Group Lessons

Day 1	Day 2	Day 3	Day 4	Day 5
5E Unit Plan Engage Activities 30 minutes	Growth and Cycles Science Station: Watch: Dung Beetles (optional questions) 15 minutes	5E Unit Explore Activities Parts 1 & 2 30 minutes	5E Unit Plan Explore Activity Part 3 20 minutes Growth and Cycles Science Station: Explore 20 minutes	5E Unit Plan Explain Activities Parts 1 & 2 45 minutes

Day 6	Day 7	Day 8	Day 9	Day 10
5E Unit Plan Explain Activities Part 3 15 minutes Growth and Cycles Science Station: Diagram 20 minutes	5E Unit Plan Extend Activities Parts 1 & 3 40 minutes	5E Unit Plan Extend Activity Part 2 30 minutes	Evaluate Activities Parts 1 & 3 30 minutes	Evaluate Activity Part 2 20 minutes Growth and Cycles: Sort OR Growth & Cycles: Investigate 20 minutes

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1

Whole-Class 5E Unit

Teach one phase a day over 5 days as written, with 30 to 70 minutes per phase.

2

Shorter Science Blocks

Spread the unit across 9 days in shorter time blocks when science minutes are limited.

3

Alongside Science Stations

Add the Growth and Cycles Science Stations for a 10-day plan.

4

Formative Checks

Use the exit tickets throughout the unit to see who needs reteaching before the performance activity.

TEACHING TIMELINE OPTIONS

Option 1 — 5 days
As Written

Day 1	Day 2	Day 3	Day 4	Day 5
Engage	**Explore**	**Explain**	**Extend**	**Evaluate**
30 min	50 min	65 min	70 min	50 min

Option 2 — 9 days
Shorter Time Blocks

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
Engage	**Explore 1–2**	**Explore 3**	**Explain 1–2**	**Explain 3**	**Extend 1, 3**	**Extend 2**	**Evaluate 1, 3**	**Evaluate 2**
30 min	30 min	20 min	45 min	15 min	40 min	30 min	30 min	20 min

Option 3 — 5 days
Abbreviated

Day 1	Day 2	Day 3	Day 4	Day 5
Engage 2	**Explore 1**	**Explain 2**	**Extend 3**	**Evaluate 1**
20 min	20 min	35 min	20 min	15 min

Option 4 — 10 days
With Science Stations

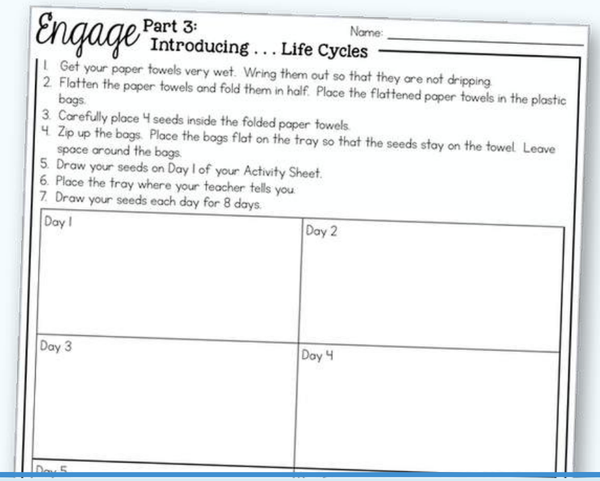
Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Engage	**Watch**	**Explore 1–2**	**Explore 3**	**Explain 1–2**	**Explain 3**	**Extend 1, 3**	**Extend 2**	**Evaluate 1, 3**	**Evaluate 2**
30 min	15 min	30 min	20 min +20 station	45 min	15 min +20 station	40 min	30 min	30 min	20 min +20 station

Orange days are Science Station lessons. Magenta notes are extra station activities you can add that day.

YOU WILL LOVE THIS BECAUSE

Hands-On From Day One

Students sprout seeds, study flowers, and build life cycle wheels, so each stage makes sense.


Engage Part 3: Introducing . . . Life Cycles

Name: _____

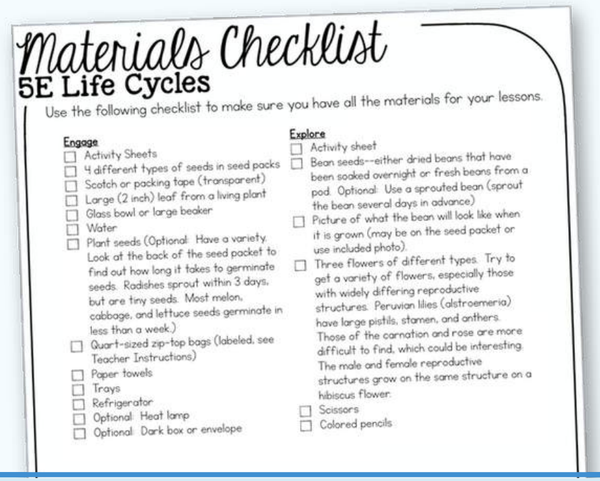
1. Get your paper towels very wet. Wring them out so that they are not dripping.
2. Flatten the paper towels and fold them in half. Place the flattened paper towels in the plastic bags.
3. Carefully place 4 seeds inside the folded paper towels.
4. Zip up the bags. Place the bags flat on the tray so that the seeds stay on the towel. Leave space around the bags.
5. Draw your seeds on Day 1 of your Activity Sheet.
6. Place the tray where your teacher tells you.
7. Draw your seeds each day for 8 days.

Day 1	Day 2
Day 3	Day 4

Day 5

Planned and Ready to Teach

Teacher notes, a misconceptions guide, a materials checklist, and answer keys are done for you.


Materials Checklist

5E Life Cycles

Use the following checklist to make sure you have all the materials for your lessons.

Engage

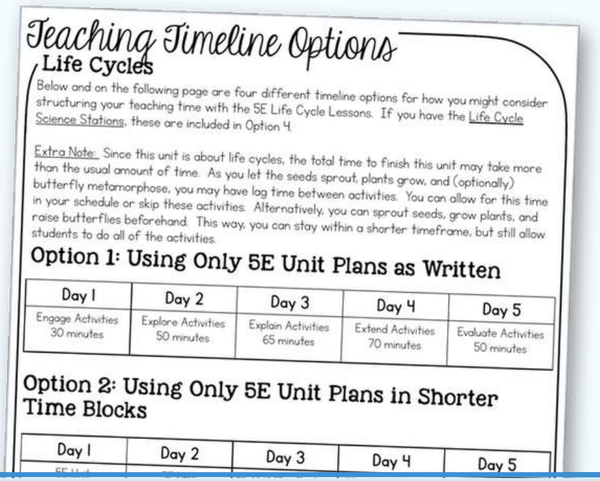
- ☐ Activity Sheets
- ☐ 4 different types of seeds in seed packs
- ☐ Scotch or packing tape (transparent)
- ☐ Large (2 inch) leaf from a living plant
- ☐ Glass bowl or large beaker
- ☐ Water
- ☐ Plant seeds (Optional: Have a variety. Look at the back of the seed packet to find out how long it takes to germinate seeds. Radishes sprout within 3 days, but are tiny seeds. Most melon, cabbage, and lettuce seeds germinate in less than a week.)
- ☐ Quart-sized zip-top bags (labeled, see Teacher Instructions)
- ☐ Paper towels
- ☐ Trays
- ☐ Refrigerator
- ☐ Optional: Heat lamp
- ☐ Optional: Dark box or envelope

Explore

- ☐ Activity sheet
- ☐ Bean seeds--either dried beans that have been soaked overnight or fresh beans from a pod. Optional: Use a sprouted bean (sprout the bean several days in advance.)
- ☐ Picture of what the bean will look like when it is grown (may be on the seed packet or use included photo).
- ☐ Three flowers of different types. Try to get a variety of flowers, especially those with widely differing reproductive structures. Peruvian lilies (alstroemeria) have large pistils, stamen, and anthers. Those of the carnation and rose are more difficult to find, which could be interesting. The male and female reproductive structures grow on the same structure on a hibiscus flower.
- ☐ Scissors
- ☐ Colored pencils

Fits Your Schedule

Choose from 4 timeline options, and use the Google Slides and Google Forms versions for a print or digital classroom.


Teaching Timeline Options

Life Cycles

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Option 1: Using Only 5E Unit Plans as Written

Day 1	Day 2	Day 3	Day 4	Day 5
Engage Activities 30 minutes	Explore Activities 50 minutes	Explain Activities 65 minutes	Extend Activities 70 minutes	Evaluate Activities 50 minutes

Option 2: Using Only 5E Unit Plans in Shorter Time Blocks

Day 1	Day 2	Day 3	Day 4	Day 5

TEACHERS LOVE IT!

★★★★★

This resource was very hands-on and engaging! The pictures were great for my MLL students who struggle more with science vocabulary.

Chasity G.



★★★★★

These worked great in my 3rd grade classroom! Thank you!

Karin B.

★★★★★

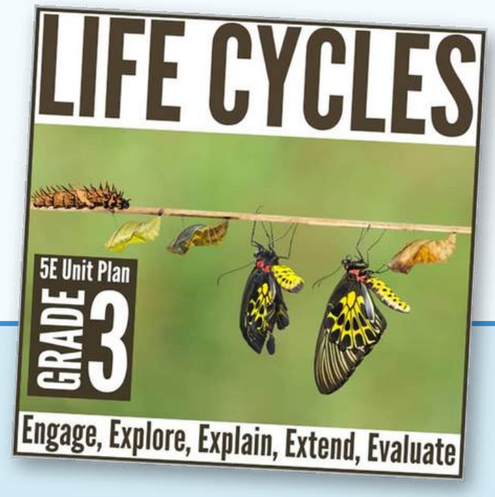
Great product! This resource helped me teach this skill more efficiently.

Karla M.



READY FOR YOUR CLASSROOM

- **Instant digital download**
- **Print and use the activities**
- **Google Slides and Forms versions**

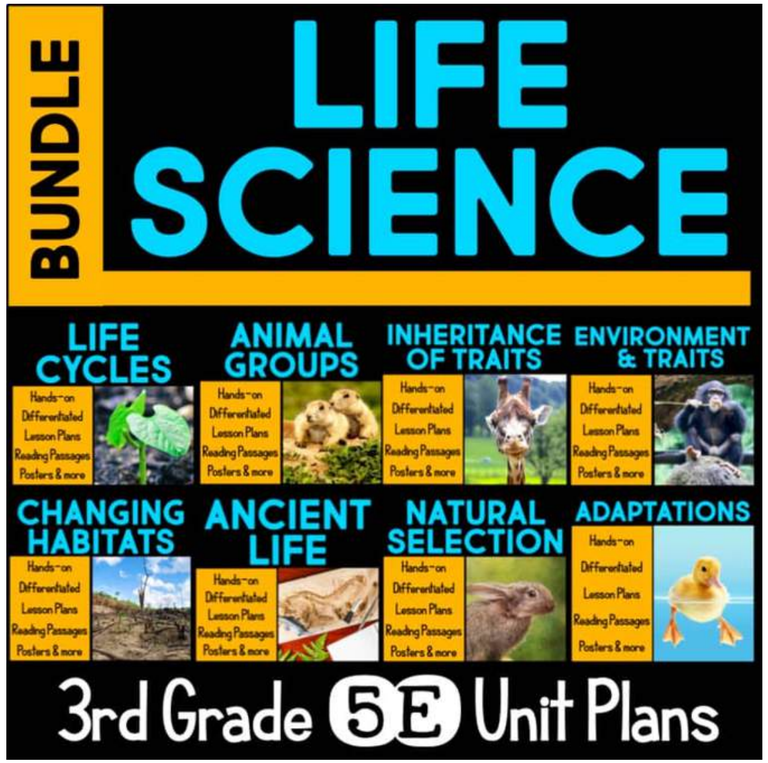


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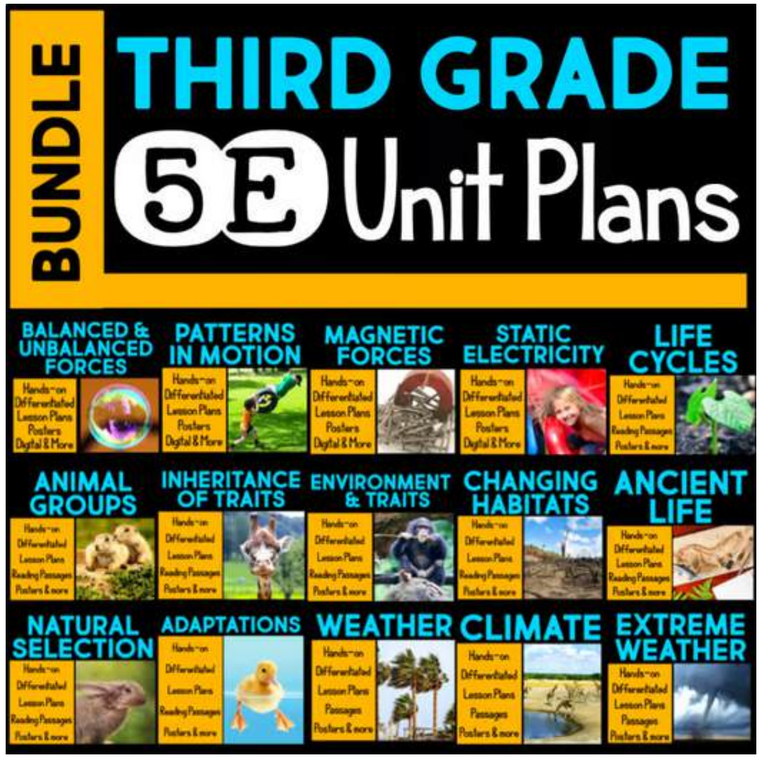
GOOD VALUE



SEE THE BUNDLE

FULL-YEAR BUNDLE

BEST VALUE



SEE THE BUNDLE

My passion is making learning accessible to all students.
I love scaffolding learning, breaking down the concepts and building them up so that students can see the connections.
I love figuring out the small components that build up to the big ideas and helping students see it all.



teach MATH | teach SCIENCE | teach READING | teach WRITING

What I have LEARNED