

 **Instructional Targets**

Standards for Language:

- **Vocabulary Acquisition and Use:** Use words acquired through academic and domain-specific sources when speaking and writing.

Standards for Science:

- **Life Science:** Identify traits inherited through genes (DNA).

 **Differentiated Tasks**

Level 3 Students will...

- Use unit topic words in conversation.
- Describe how traits are inherited from parents through genes.

Level 2 Students will...

- Point to pictures of key vocabulary from unit topics as part of a discussion.
- Identify traits inherited from parents (eye color, hair color, etc.).

Level 1 Students will...

- Make a selection to indicate a picture of key vocabulary within a unit topic.
- Identify their own inherited traits (eye color, hair color, etc.).



Topic Connection

Throughout this unit, students explore how traits are inherited from parents. We look the way we do because of the genes our parents give us. These genes are made of DNA. In this lesson, students will further explore the combination of traits that a person can get from their two parents. They will flip a coin to create a creature based on traits from a mom and dad creature. They will then draw their own traits which they have inherited from their parents.



Topic Words



DNA
gene parent
 trait



Content-Area Words

describe identify inherit

* Power Words



Lesson at a Glance

Activity 1



Instructional Activities

Creating a Little Creature



See how these activities fit into the **Suggested Monthly Plan**.



ULS Materials and Resources

Dad Creature

Mom Creature

Little Creature

Creature Creation Chart

Creature Parts 

You



Additional Materials

pennies
crayons
scissors
glue

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Standards for Science:

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 **Instructional Routine**



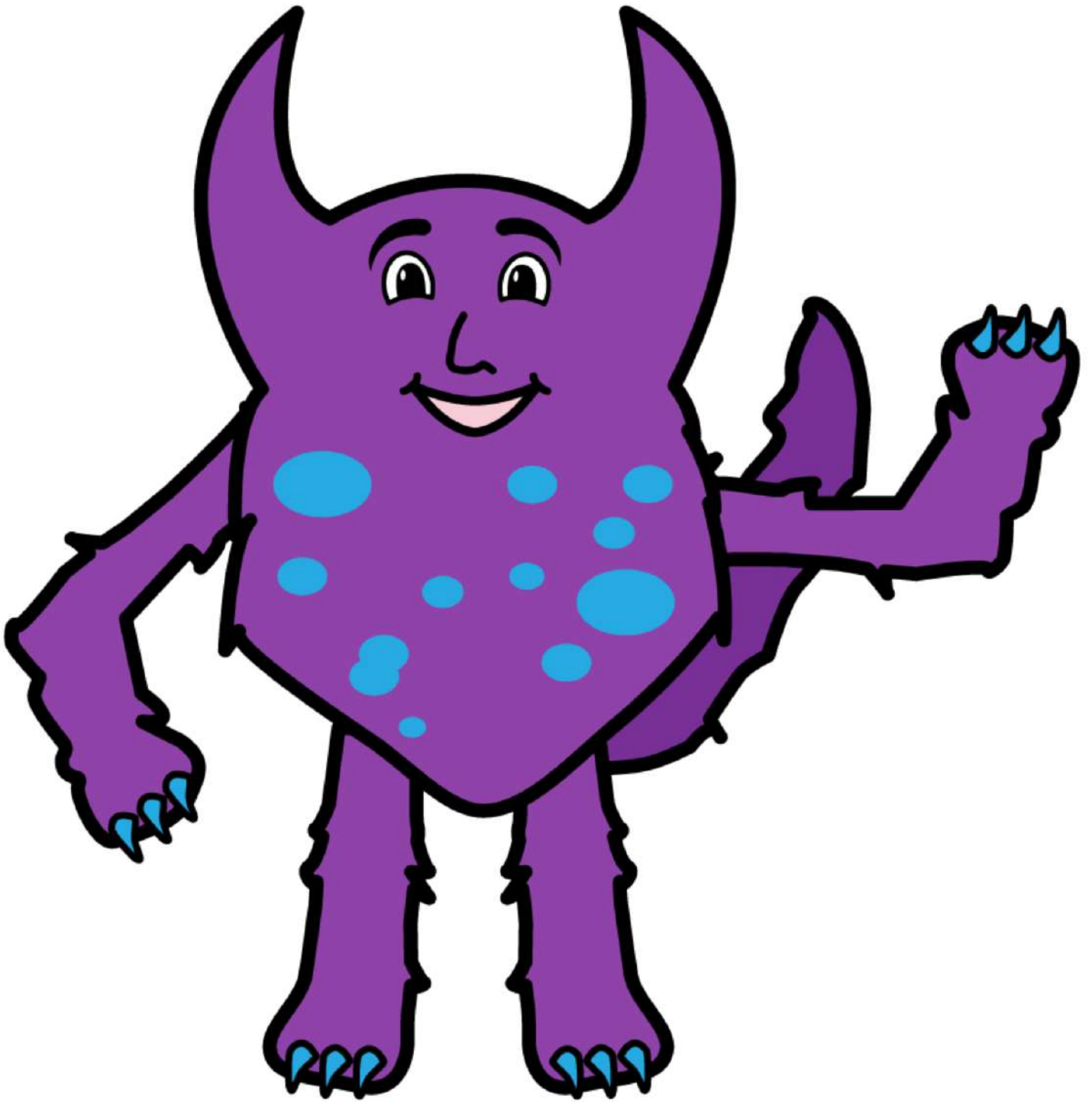
Introduce	<ul style="list-style-type: none"> • Introduce the activity by asking a focus question. For example, ask, "Where do you get your DNA—your parents or a store?" Discuss students' responses. Remind students that they get their DNA from their parents. • Explain to students that hair color and eye color are just two of many traits that each person has and gets from their parents' DNA. The type or color of the trait is determined by the genes and DNA from each parent. You get some traits from your mom and some traits from your dad depending on the DNA and genes from each. Tell students that they will do a fun activity to see how many different looking creatures can be made from the traits of two creatures. For example, say, "You will make your own creature using traits from two parent creatures. Your job is to make a creature to show how traits are inherited from parents." • Review the learning goals with students: I will make a creature to show how traits are inherited from parents.
Model	<ul style="list-style-type: none"> • Display the Mom and Dad Creatures. Ask students about the traits each parent shows. For example, ask, "What trait does the Mom Creature have on her stomach—stripes or spots?" Discuss each trait on each parent creature. • Display the Creature Creation Chart. Tell students that they will use this chart to discover which traits their creature will have. Explain that they will flip a penny to decide each trait. Model filling out the chart. For example, say, "The first trait is legs. Mom has short legs and dad has long legs." Flip a penny. If it lands on heads, say, "The penny landed on 'heads.' The chart says, 'heads' is short legs. So, the little creature will get the trait of short legs from its mom." I will put a check mark next to short legs on the chart." • Display the Little Creature page. Explain to students that this is where they will build their little creature. Tell students they can create their creature by dragging over the parts from the Creature Parts Page. Model dragging over the parts that were chosen from the Creature Creation Chart. Tell students that they may also draw their little creature or cut out parts from the Creature Parts pages. Model drawing or cutting and gluing creature parts to make a new creature. For example, model drawing or gluing on the short legs that were discussed in the second bullet. Display a completed Little Creature page. Discuss with students which parent each part of the Little Creature came from. • Provide students with the You page. Explain to students that this is where they will draw their own self-portrait of the traits that they have inherited from their parents. Discuss with students examples of these traits. For example, say, "One trait that can be inherited from your parents is your hair color. What color is your hair?" Modeling drawing and then coloring the trait on the You page.
Provide Practice	<p>Provide students with all materials. Students may work individually or in groups to create a new creature. Assist students as needed to cut out parts for their new creatures.</p> <p>Level 3: Have the student make a little creature. Then, have the student describe how the creature's traits were inherited from parents through genes.</p> <p>Level 2: With support, have the student make a little creature. Then, have the student identify each trait the little creature inherited through its parents (eyes, noses, etc.).</p> <p>Level 1: Assist the student in making a little creature. Tell the student what the little creature's traits are. Then, ask the student to identify their own inherited traits. For example, say, "These creatures have purple hair. What color is your hair?" Have student choose the correct color hair to illustrate their picture.</p>
Review	<ul style="list-style-type: none"> • Revisit the learning goal by having the students share the creatures they created. Have each student pick at least one trait that their creature has and explain where the trait came from (mom creature or dad creature).



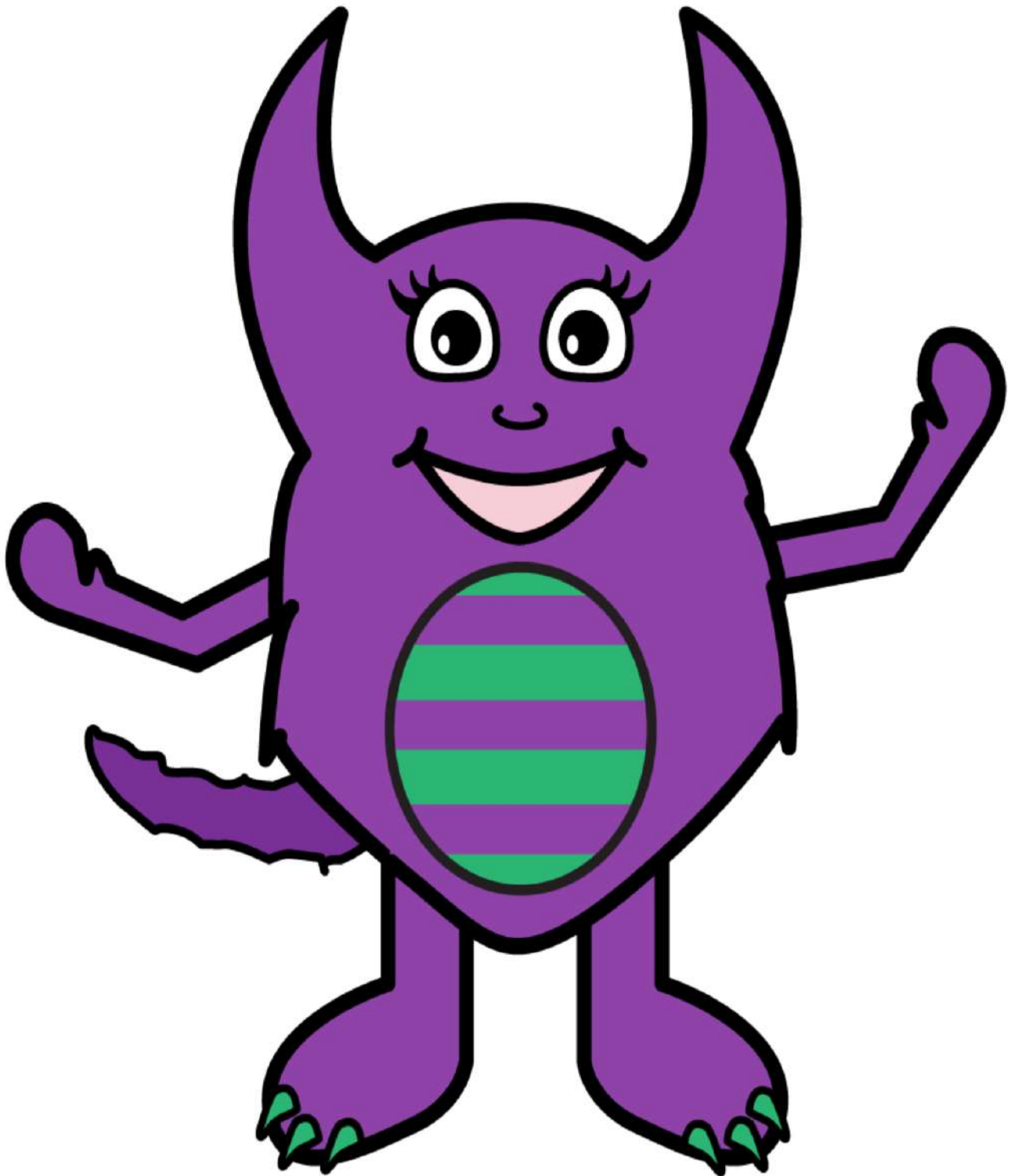
Check Understanding 

- ✳ **Level 3:** Can the student describe how traits are inherited from parents through genes by completing the Creature Creation Chart and self-portrait.
- ✳ **Level 2:** Can the student identify traits inherited from parents (eye color, type of nose, etc.) by completing the Creature Creation Chart and self-portrait.
- ✳ **Level 1:** After hearing about their little creature's traits, can the student identify their own inherited traits (eye color, hair color, etc.) by completing the Creature Creation Chart and self-portrait?

Dad Creature



Mom Creature























Little Creature



A large, empty rectangular box with a thick black border, intended for drawing or writing.

Creature Creation Chart

Mom 	Heads 	Dad 	Tails 
short legs 		long legs 	
short arms 		long arms 	
stripes 		spots 	
big eyes 		little eyes 	
big mouth 		little mouth 	
small nose 		big nose 	
short tail 		long tail 	

You

You have many traits that come from your parents. These traits can be your hair color, eye color, skin color, nose shape, ear size, smile and height. You may even have freckles or dimples like your parents. Now it is your turn to draw the traits that you have from your mom and dad.

For hands-on instruction, print, cut out and laminate.

