

ACTIVITY: Discover the joys of hagfish slime



GRADE LEVEL(S): K to 6th



40 minutes

(*Teacher's slime prep about 30 minutes plus 60 minutes to cool)

OVERVIEW: Analyze the adaptive advantages of slime

DISCIPLINES: Science, language arts

OBJECTIVES: Students will be able to:

- describe hagfish slime
- list 5 words to describe hagfish slime
- analyze adaptive advantages to slime
- present their hypothesis to the class
- celebrate WhaleTimes Hagfish Day!



MATERIALS TO MAKE SLIME: Metamucil
Sauce pan (medium)
Whisk

Measuring utensils: teaspoon; cup
Resealable plastic sandwich bags

Materials for kids: enGrossed in Slime fun sheets
hagfish fact sheets

pencils
one batch of slime per team

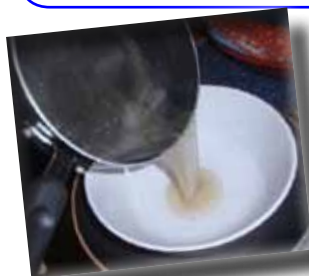
WHAT TO DO:

- Preparation/Notes:
- Only an adult should cook/make the slime.
 - Allow slime to cool at least 45 minutes before using.
 - The slime is **not** edible.
 - Make one batch per team.

Hagfish Day SLIME

1 teaspoon Metamucil per 1 cup water. Makes one batch.

1. Whisk **Metamucil** into **boiling water**.
2. Keep at a gentle rolling boil. Stir constantly. Cook about 5 to 7 minutes.
3. The mixture will thicken from syrup-like to gooey gelatin. You're looking for a viscous consistency that's a bit more fluid (not runny) than the flubber.
4. Remove from heat, allow to cool.
5. Allow to cool at least 45 to 60 minutes before using. When cool, store in resealable bags.
6. **Enjoy!**



Activity:

1. Divide class into teams or cooperative learning groups.
2. We suggest you start this one very serious...as if it's going to be a long dull lecture...introduce the hagfish, give a facts, show a picture, another fact...then reach into the a bowl and hold up the slime. You'll get a great reaction and their undivided attention!


Teacher's Note: Depending on the class' reading/writing level, you can either tell them about hagfish and discuss questions on fun sheet. Or give each team a hagfish fact sheet and fun sheet.

3. Ask students if they know what a hypothesis is. Explain. Then tell students they're going to become scientists and experience hagfish slime. Their job is to:



- a. Write down as many words and phrases that come to mind about the slime.
- b. Come up with a hypothesis why/how hagfish use slime.
- c. Come up with 3 ideas on how people might benefit from the slime.
- d. Present their hypothesis and ideas to the class

Teacher's note: Because it's such an ewwww moment, let them experience the slime for a few minutes before giving students their "to do" list. This is a loud activity with lots of laughing. You may want to move outdoors or somewhere other classes won't be disturbed.

 Have students add their fun sheet to their deep sea journal They'll want to refer to their descriptive words in the Hagfish Haiku activity

Allow students time to add thoughts to journal about what they discovered about hagfish and slime.

$\frac{2}{+3}$ A hagfish can fill a gallon bucket with slime in one minute. How long would it take to fill a wading pool? A swimming pool? Or, how many hagfish would it take to fill a swimming pool in 10 minutes?

Teacher's Note:
This October, don't forget to celebrate Hagfish Day with your students!

Jake, the SeaDog

P.S. Go to:
www.whaletimes.org/hagfishday.htm

NATIONAL STANDARDS:

Science:

- 6.1 Science as Inquiry
- 6.5 Science and Technology Standards
- 6.7 History and Nature of Science

Ocean Literacy:

- 6. The ocean and humans are inextricably linked.
- 7. The ocean is largely unexplored.

Language Arts Standards: #1, #5, #7, #12

Arts Education: Visual Arts Standard 6:

Making connections between visual arts and other disciplines

enGrossed in Slime

Slimy observations: Write down as many words and phrases that come to mind about the slime.

Question: Why do hagfish slime?

Brainstorm notes:

My hypothesis: *I think hagfish use slime to...*

How could you test your hypothesis?

Three ways people might benefit from hagfish slime.