

Non-Fiction Writing to Learn Elementary Science Guide Sheet

Non-Fiction writing in the content areas is a strategy to facilitate learning for all students.

6 + 1 Traits of Writing

Although content area teachers are not teaching writing, the 6 + 1 Trait rubrics provide a common language from which to begin the feedback process for students. For example the concepts (ideas), vocabulary of the discipline (word choice), and organization found in Non-Fiction Writing across the content areas can be improved through the use of feedback and evaluation around the 6 + 1 Traits rubrics.

IDEAS: concepts from the content, specific examples from content or reading to support conclusions

ORGANIZATION: the arrangement of ideas to enhance communication (i.e. pros/cons, sequence)

WORD CHOICE: use of the language of the discipline (content) to create meaning, use of vocabulary

Feedback

Assessment is not just summative as in a standardized test or large unit test. Assessment is also formative meaning it is ongoing, diagnostic, and to the point. It is with the formative assessment that feedback plays a critical role.

The feedback students receive should be timely, corrective, and specific allowing them to use the feedback to improve their mastery of concepts.

Feedback can come in many different forms including self, peer, and teacher. A balance is needed between students' ability to provide themselves with feedback, provide their peers with feedback and receive feedback from their teachers.

Specific Prompts

Not all prompts will need to be R.A.F.T.S. prompts. Using R.A.F.T.S. prompts will allow the teacher flexibility in creating higher order thinking prompts that specifically ask students to write about the concepts being studied in a particular content area.

For example:

You've landed on a planet with little or no oxygen and too much carbon dioxide. Luckily, you brought along a bag full of different plant seeds. Write a script of a journalist's TV interview to be shown on public television with you answering questions about your discovery of the problem on the planet, and your ingenious solution that made the planet habitable for future human space travelers.

R =	A =	F =	T = _____	S =
Role	Audience	Format	Topic	Strong Verb

Examples of Elementary Science Non-Fiction Writing Activities and Assessments

Journal Entry:

The cook at the restaurant is cooking soup on the stove. She leaves the metal spoon in the pot of soup while she goes to get more crackers. Explain to her why she burned her finger when she picked up the metal spoon again to stir the soup.

Learning Log:

Choose an extinct species you've learned about to compare with a species that is living now (e.g., dinosaurs and lizards, woolly mammoths and elephants). Explain their similarities and differences.

Think-Write-Pair-Share:

Write three fun riddles for your friends. First, describe a solid, but don't tell your friends what it is. Give clues about the object. Start with its size and shape, how it feels, where you might find it, and its color, but remember not to name it. Then do the same for a liquid and a gas.

Essay:

We know that organisms have different physical structures for different jobs. Choose your favorite animal and describe in detail the physical structure it uses to defend itself from predators. Remember that not all animals defend themselves by tooth and nail; some use camouflage, swift legs, and noxious gas. What structure does your animal use for defense?

Summary:

Students fill in T chart of materials a magnet can and can not attract. Then students write a one sentence summary of their findings.

Letter:

The president wants to visit your city in either July or January. Which month do you think would be a better time for a visit? Write a letter to the president explaining what the weather will be like in both of those months, and persuade him to come in the month of your choice. Don't forget to tell him what clothes to pack for his trip.

Song:

A farmyard kitten has become separated from his mother. He asks a chicken, a pig, and a horse if they are his mother. Write a song that starts "You're a kitten not a chicken and let me tell you why. A Chicken has.... You're a kitten not a pig and let me tell you why. A pig has...."]

Brochure:

You've been hired to write a visitor's guide for your favorite environment (ocean, desert, tundra, forest, grasslands, or wetlands). Create a brochure informing visitors about the types of plants, mammals, reptiles, and insects they can expect to meet when they visit this environment. Inform them also of any precautions they should take to protect themselves or the species in that environment from harm.