

Goosebumps and Butterflies

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Noun frequency level: 8–9
Year 4



Overview

Through personal recount, the author describes the way she feels in her body when she is nervous, then gives an explanation of why we have these feelings. She gives specific technical information to explain the common metaphors of butterflies and goosebumps. The article includes a cartoon-style labelled diagram that shows what happens in the body at such times.

There are opportunities in this text for students to learn important facts about the human survival mechanism as well as learning that it's OK to feel anxious.

Texts related by theme “Why Do I Blush?” SJ 4.1.06 (for shared reading) | “Of Elbows and Eels” *Connected* 2 2004 (for shared reading)

Text characteristics from the year 4 reading standard

some abstract ideas that are clearly supported by concrete examples in the text or easily linked to the students' prior knowledge

a straightforward text structure, such as a structure that follows a recognisable and clear text form

some places where information and ideas are implicit and where students need to make inferences based on information that is easy to find because it is nearby in the text and there is little or no competing information

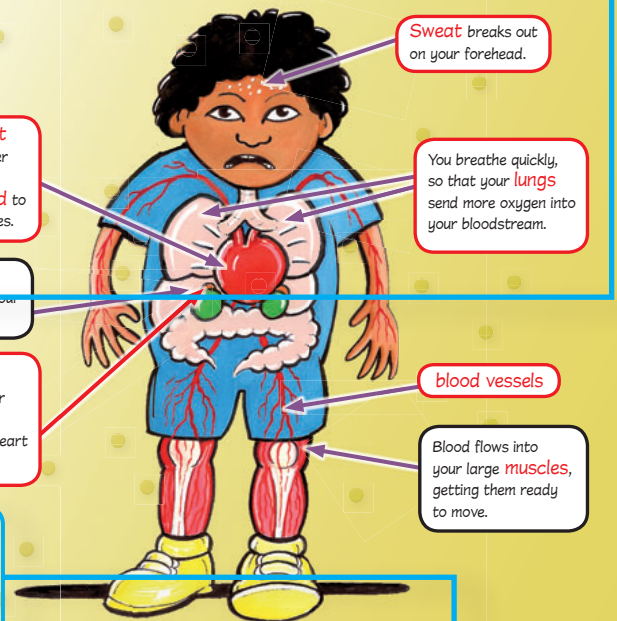
Fight or Flight

Our teacher reckons that feeling nervous can actually be helpful because it means that your body is telling you it's ready for a challenge. Back in the days when people lived in caves, they had to be ready at any moment for an attack by wild beasts. Their bodies developed a “fight or flight” reaction, getting ready either to run away or to defend themselves.

These days, most of us don't have to prepare for attacks by wild animals. But when you're feeling nervous, your body tries to help you by releasing **adrenalin** into your **bloodstream**. This makes your heart beat faster so that it can pump more blood to your muscles. You breathe more quickly, allowing more **oxygen** into your bloodstream. You're more alert and aware of what's happening around you.

***Adrenalin** is a hormone. Hormones are substances in the blood that send messages to particular parts of our bodies.

What Happens When You Feel Nervous?



12

13

some compound and complex sentences, which may consist of two or three clauses

some words and phrases that are ambiguous or unfamiliar to the students, the meaning of which is supported by the context or clarified by photographs, illustrations, diagrams, and/or written explanations

other visual language features that support the ideas and information, for example, text boxes or maps

Reading standard: by the end of year 4

Possible curriculum contexts

SCIENCE (Living World)

LEVEL 2 – Life processes: Recognise that all living things have certain requirements so they can stay alive.

ENGLISH (Reading)

LEVEL 2 – Ideas: Show some understanding of ideas within, across, and beyond texts.

ENGLISH (Writing)

LEVEL 2 – Language features: Use language features appropriately, showing some understanding of their effects.

Possible reading purposes

- To find out what goosebumps and butterflies are and why we have them
- To explore goosebumps and butterflies and consider how they might have helped humans to survive.

See [Instructional focus – Reading](#) for illustrations of some of these reading purposes.

Possible writing purposes

- To describe another animal reflex, how it works, and how it helps the animal to stay alive
- To compare the reflexes of humans with those of another animal
- To write a speech for the class to explain how goosebumps or butterflies work.

See [Instructional focus – Writing](#) for illustrations of some of these writing purposes.

Text and language challenges

VOCABULARY:

- Possible unfamiliar words and concepts, including “turned up”, “nervous”, “the shakes”, “hardly”, “reckons”, “actually”, “challenge”, “reaction”, “defend”, “releasing”, “adrenalin”, “bloodstream”, “oxygen”, “butterflies”, “calm”, “kidneys”, “blood vessels”, “hormone”, “substances”, “particular”, “goosebumps”, “upright”, “relax”
- The use of colloquialisms, including “turned up”, “got the shakes”, “reckons”, “Back in the days when”
- The use of figurative language, including “fight or flight”, “butterflies”, “goosebumps”, “hair stood on end”.

Possible supporting strategies

Identify the specialised vocabulary your students will need support with. Use strategies to preview the vocabulary before reading, such as having the students describe feeling nervous or frightened.

Make a diagram of the body and label it using some of the key vocabulary.

Make and display a word chart of the technical terms used in the text, adding explanations and diagrams before or after reading.

Before reading, you could explore nervousness. Create a table with columns for physical feelings, emotional feelings, situations that make us feel nervous, and what we can do about it. Students who know other languages could work together to explore some of the ideas in their language and then find words in English too. As they read, the students could compare their lists with the information and vocabulary in the text.

The English Language Learning Progressions: Introduction, pages 39–46, has useful information about learning vocabulary.

SPECIFIC KNOWLEDGE REQUIRED:

- Experience of feeling anxious, nervous, or frightened
- Experience of having “butterflies” or “goosebumps”
- Knowledge of how our bodies work
- Knowledge of human and animals’ survival mechanisms.

Possible supporting strategies

Provide opportunities for students to explore some of the necessary background information, for example, by sharing their experiences.

Build background knowledge of the ways in which the “fight or flight” response supported survival.

Discuss examples of animals using the “fight or flight” response.

Review the relevant parts of the body and how they work.

TEXT FEATURES AND STRUCTURE:

- An explanation within a personal recount
- The use of section headings
- A labelled diagram
- A text box that explains a technical word
- The photo of goosebumps on skin
- The use of recounts (narrator and teacher)
- Told in the first person
- Directly addresses the reader
- The use of questions
- The use of pronouns
- Mostly complex sentences.

Possible supporting strategies

Review what students know about the ways in which natural phenomena can be described, including through explanations.

Discuss the ways in which authors use personal recounts and questions to help the reader understand a complex concept.

Highlight examples of pronoun use and support the students to identify what each example is referring to.

Instructional focus – Reading

Science (Living World, level 2, life processes – Recognise that all living things have certain requirements so they can stay alive.)

Text excerpts from “Goosebumps and Butterflies”

When I had to meet my new teacher, I got the shakes and I felt sick. My mouth went so dry I could hardly say hello to her.

But when you're feeling nervous, your body tries to help you by releasing adrenalin into your bloodstream. This makes your heart beat faster so that it can pump more blood to your muscles. You breathe more quickly, allowing more oxygen into your bloodstream. You're more alert and aware of what's happening around you.

These feelings are caused by the oxygen-filled blood flowing away from your skin and stomach into the large muscles you'd need for running away from that charging lion.

So next time you feel nervous about something, remember that even teachers feel nervous sometimes. Remember that your body is trying to look after you. Relax and breathe slowly and deeply.

And you might try eating a banana!

Students (what they might do)

Students **make connections** between the text and feelings they may have had themselves. They can **visualise** the feelings and physical reactions to understand why the narrator had trouble speaking.

Students **locate and evaluate** information from the text and the labelled diagram to understand the process described. They use this information to **infer** that the “fight or flight” reaction is due to the release of adrenalin.

Students **ask and answer questions** to infer that oxygen helps you to be more alert and that this can help you survive.

Students **connect** the idea of “that charging lion” with the idea in the previous section to **infer** that the reaction is the same one that helped keep people safe from wild animal attacks.

Students **make connections** between the ideas at the start of the article and the information they have read in the article. With support, they **integrate** information to understand and **evaluate** the key ideas: that anyone can feel nervous and that feeling nervous can trigger a physical response that might help us survive. Students **ask questions** as they wonder why relaxing and breathing slowly can help when they feel nervous.

Teacher (possible deliberate acts of teaching)

MODEL your thinking for the students.

- I've felt like this when I've been nervous about being late for a plane. So when I read “I got the shakes” I know it literally means “I was shaking”.
- Asking questions as we read can help us to find information. So my question is: Why do our bodies react like this when we're nervous or anxious?

ASK QUESTIONS to help the students clarify their understanding of the explanation.

- Why does your body try to help you? What would happen if it didn't do this?
- Where does adrenalin come from? Where does it go?
- Which parts of your body are involved? How does each part help get you ready to fight or run?

PROMPT the students to make links between the diagram and the text to help them follow the series of relationships in the complex sentences. You could construct a simple cause-and-effect flow chart as a group, using the phrases from the text (for example, when you're feeling nervous – body releases adrenalin into your bloodstream – heart beats faster – pumps more blood to your muscles). Students could use the diagram and the flow chart to help them summarise the key ideas.

MODEL

- I'm wondering why the author mentions a charging lion. I know that oxygen-filled blood flows away from the skin and stomach of a person who feels in danger ... so I think she's reminding us of the fight or flight reflex – which people certainly would have needed in ancient times.

ASK QUESTIONS to support students to bring new ideas together and relate them to their own experience.

- What is the author's purpose for this last section?
- What new information have you learned from this article?
- What connections can you make with similar ideas you've read or heard about?

DIRECT

- I'm wondering why relaxing and breathing slowly help when you feel nervous? I wonder if slowing down your breathing can slow the flight or fight reflex? Go back to page 12 to see if you can find why this happens.

GIVE FEEDBACK

- By slowing down your reading, you were able to find several big ideas to understand about goosebumps and butterflies. That's a useful strategy for reading non-fiction.
- You've put together the information in the diagram with the explanation in the text. That's an excellent strategy to use for reading a complicated text like this.

METACOGNITION

ASK QUESTIONS to make the students' strategies explicit for them.

- What does the teacher mean when she says feeling nervous can be helpful? How did you work that out? What strategies did you use?
- What words do you use in your language to describe feeling nervous?
- Which reading strategies were most useful to you? Share an example with a partner.
- Can you find a place in the article where visualising (making a picture in your mind) helped you to understand something? Explain this to a partner.

Reading standard: by the end of year 4

The Literacy Learning Progressions

Assessment Resource Banks

Instructional focus – Writing

Science (Living World, level 2, life processes – Recognise that all living things have certain requirements so they can stay alive.)

Text excerpts from “Goosebumps and Butterflies”

Do you ever have school dreams? Sometimes I dream that I’ve arrived at school but I can’t find the classroom.

But when you’re feeling nervous, your body tries to help you by releasing adrenalin into your bloodstream. This makes your heart beat faster so that it can pump more blood to your muscles. You breathe more quickly, allowing more oxygen into your bloodstream. You’re more alert and aware of what’s happening around you.

Adrenalin is a hormone. Hormones are substances in the blood that send messages to particular parts of our bodies.

Examples of text characteristics (what they might do)

TEXT STRUCTURE

Introduction

The introduction to an article sets the scene for the information to come. The use of the question to the reader, the first-person perspective, and the personal information all help to establish a connection with the reader.

USING DETAILS

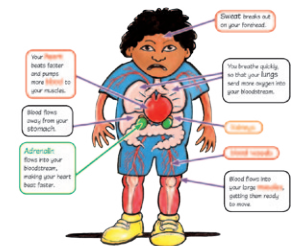
Adding details that support a key idea gives writing authenticity and authority. Details help the reader to better understand the process being explained.

USING VOCABULARY

Technical words sometimes need to be defined or explained. Adding a glossary, a text box, or a definition in the text are all ways of helping the reader to understand technical words that are important to the key ideas and the author’s purpose.

LABELLED DIAGRAMS

Diagrams visually represent information in the text to help the reader to understand it. The labels need to be clear and succinct and to use terms that are also found in the running text.



Teacher (possible deliberate acts of teaching)

ASK QUESTIONS to help students think about the features they will use in their writing.

- Who is your audience?
- How will you get your audience interested right from the start?
- What sorts of language features are appropriate to use?
- What is your topic?

MODEL the way that details help the reader to understand a text.

- If I only read the first sentence, I’d know the “big idea” but I don’t think I’d really understand what it meant. The details that follow help me to understand exactly what it means to have adrenalin in my bloodstream.

ASK QUESTIONS to support students to add relevant detail to their writing.

- What’s the key idea you want your readers to understand?
- What kinds of details will make that idea clearer?

Look at examples of how sentences using “if”, “when”, “because”, “so that”, and/or pronouns and adjectives such as “this”, “that”, and “these” can be useful in adding detail and making connections.

Choose only one or two sentence types to look at, depending on the abilities of your students. Some students may need sentence starters and/or frames to begin with.

TELL the students that writers usually need to help their readers when they use technical vocabulary.

- When you need to use specialist or technical words, think about whether your readers will know the words. There are several ways you can help your readers to understand these words, for example, by adding a definition in a glossary or in a text box.

ASK QUESTIONS to support students to select and use technical words.

- Will your readers know the technical words you’ve used? If not, how will you help them to understand them?

ASK QUESTIONS to support the students to use labelled diagrams.

- Are there some parts of your writing that could use a diagram to help the reader? What are the most important things to show?
- Will you need arrows or labels? If so, what will they show?
- Ask your partner to check the diagram against the text and give you feedback.

GIVE FEEDBACK to affirm students’ writing decisions and guide their learning.

- You’ve added some really interesting details now. They help me to understand how ...
- I noticed that you checked your word choices with Jack. That was a good idea. You’ve used technical words very well, and adding a glossary will really help some readers.

METACOGNITION

ASK QUESTIONS to encourage the students to think more deeply about their writing.

- How did thinking about your audience help you make choices about the text features you’ve used?
- How did you decide which details were important and which were interesting but not so important? How did this help you decide which ones to include and which ones to leave out?
- Why did you choose to make a diagram for this idea? How will it help the reader to understand your idea?