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2



Before Reading During Reading After Reading



- Teach the pronunciation and meaning of critical, unknown vocabulary words
- Review, teach or activate any necessary background knowledge
- Preview the text

3



- "direct vocabulary instruction has an impressive track record of improving students' background knowledge and comprehension of academic content" Marzano, 2001, p. 69
- .97 effect size for direct teaching of vocabulary related to content Stahl & Fairbanks, 1986

5

Before Reading - Vocabulary

- Limit number of words given in depth instruction to 4 to 5 words (Robb, 2003)
- Select words that are unknown
- Select words that are critical to passage understanding
- Select words that students are likely to use in the future (Stahl, 1986)
 - General academic vocabulary found used in many domains
 - Domain-specific vocabulary that provides background knowledge

6

Selection Vocabulary

- General academic vocabulary Words used in many domains. (suitcase words)
 Examples: contrast, analyze, observe, evidence, theory
- Application of general academic vocabulary differs across domains (Hyland & Tse, 2007; Fisher & Blachowicz, 2013)

Math – *Analyze* givens, constraints, and relationships in problem

Science – Analyze and interpret data

English – Analyze how author develops character

Selection of Vocabulary

 Domain-specific vocabulary that provides background knowledge

Examples: tariff, acute angle, foreshadowing

 When possible, teach clusters of words that are meaningfully related.

Math: angles, acute, right, obtuse, straight, reflex **Science**: cell, nucleus, mitochondrion, vacuole, cell

membrane, cell wall, chromosome

Social Studies: colony, ethnic group, migration, society, settlement, settler



Selection of Vocabulary

- Select difficult words that need interpretation.
 - Words not defined within the text
 - Words with abstract referent
 - Words with an unknown concept

Select a limited number of words.

* Select words that are unknown.

Summary

- Select words critical to passage understanding.
- * Select words that can be used in the **future**.

Selection of Vocabulary -

Select difficult words that need interpretation.

10

Selection - Vocabulary

Text: American Journey Chapter 11, Section 1					
Publisher: G	Publisher: Glencoe Jacksonian Democracy				
favorite son	majority	plurality	mudslinging		
landslide	nominating convention	tariff	suffrage		
nullify	secede				

Selection - Vocabulary

Text: My World		Chapter 4, Section 3	
Publisher: Pearson		Central America and the	
	C	Caribbean Too	lay
* carnival	* Santeria	* diaspora	*microcredit
* ecotourism	indigenous	democracy	parliamentary system
dictatorship free-trade agreements			

11



Organize words for Instruction

- Order words in list to stress relationships between words.
- Group words into semantic clusters to create a scheme. (Marzano & Marzano, 1988; Wixson, 1986)

13



Before Reading - Vocabulary

Step 1. Introduce the word.

- a) Write the word on the board or overhead.
- Read the word and have the students repeat the word.
- c) Have students tap out the syllables in the word.
- Have students read the word by parts as you loop under the word.
- Have students repeat the pronunciation of the word.
 (If the word is difficult to pronounce or unfamiliar have the students repeat the word a number of times.)

Introduce the word with me

This word is **suffrage**. What word? suffrage Tap and say the parts of the word. suf frage Read the word by parts. suf frage What word? suffrage **Suffrage** is a noun.

14



Before Reading - Vocabulary

Step 2. Introduce meaning of word.

Option # 1. Present a student-friendly explanation.

- a) Tell students the explanation. OR
- b) Have them read the explanation with you.

Present the definition with me

When someone has **suffrage**, they have the right to vote in an election.



Before Reading - Vocabulary

Step 2. Introduce meaning of word.

Option # 2. Have students locate the definition in the glossary or text and break the definition into the critical attributes.

Glossary: Suffrage - the right to vote

suffrage

- the right
- to vote

15

Step 2. Introduce meaning of word.

Option # 3. Introduce the word using the meaningful parts in the word.

autobiography auto = self bio = life graph = letters, words, or pictures

hydroelectricity hydro = water

NOTE: 88% of key science words have Spanish cognates; 1/2 are high frequency words in Spanish

17

Common Latin and Greek Roots

graph	to write, to draw	Greek	autograph, biography, photograph, telegraph, lithograph
hydro	water	Greek	hydroplane, dehydrate, hydroelectric, hydrogen, hydrophone
ject	throw	Latin	reject, deject, project, inject, injection, projection
logos, logy	study	Greek	geology, astrology, biology, numerology, zoology, technology, psychology, anthropology, mythology
luna	moon	Latin	lunar, lunacy, lunatic, interlunar
meter	measure	Greek	meter, thermometer, diameter, geometry, optometry, barometer, centimeter, symmetry, voltammeter
mega	great, large, big	Greek	megaphone,megalith, megalomania, megatons, megalopolis
min	small, little	Latin	minimal, minimize, minimum, mini, miniature, minuscule, minute, minority
mit, mis	send	Latin	mission, transmit, transmission, remit, missile, submission, permit, emit, emissary
path	feeling, suffering	Greek	pathetic, pathology, apathy, antipathy, sympathy, telepathy, empathy, sociopath
ped	foot	Latin	pedestrian, pedal, peddle, peddler, pedicure, pedometer
philia	love, friendship	Greek	philosopher, Philadelphia, philanthropist, philharmonic₁∯hilip

Common Latin and Greek Roots

aqua	water	Greek	aquarium, aqueduct, aquaculture, aquamarine, aquaplane, aquatic
aud	hearing	Latin	audio, audition, audiovisual, auditorium, audiotape, inaudible
auto	self	Greek	autograph, autobiography, automobile, autocrat, autonomy
astro	star	Greek	astronomy, astrophysics, astrology, astronaut, astronomer, asterisk
biblio	book	Greek	Bible, bibliography, bibliophobia, bibliophile, biblioklept
bio	life	Greek	biography, biology,autobiography, bionic, biotic, antibiotic, biome, bioshere, biometrics
chrono	time	Greek	synchronize, chronology,chronic, chronicle, anachronism
corp	body	Latin	corpse, corporation, corps,incorporate, corporeal, corpulence
demo	the people	Greek	democracy, demography,epidemic, demotic, endemic, pandemic
dic, dict	speak, tell	Latin	dictate, dictation, diction, dictator, verdict, predict, contradict, benediction, jurisdiction, predict, indict, edict
dorm	sleep	Latin	dormant, dormitory, dormer, dormouse, dormition, dormitive
geo	earth	Greek	geology, geologist, geometry, geography, geographer, geopolitical, geothermal, geocentric

Common Latin and Greek Roots

phono	sound	Greek	phonograph, microphone, symphony, telephone, phonogram, megaphone, phony, euphony, xylophone, phony,
photo	light	Greek	photograph, photosynthesis, telephoto, photometer, photophilia
port	carry	Latin	port, transport, transportation, portable, portage, report
spect	see	Latin	respect, inspection, inspector, spectator, spectacles,prospect
scope	look at	Greek	microscope, telescope, periscope, kaleidoscope, episcopal
sol	sun	Latin	solar, solar system, solstice, solarium, parasol
struct	build, form	Latin	instruct, instruction, construction, reconstruction, destruct, destruction, infrastructure, construe, instrument, instrumental
tele	distant	Greek	telephone, television,telegraph, telephoto, telescope, telepathy, telethon, telegenic
terra	land	Latin	territory, terrestrial, terrace, terrarium, extraterrestrial, Mediterranean Sea, terra cotta, subterranean



Step 3. Illustrate the word with examples.

- a. Concrete examples
 - objects
 - acting out
- b. Visual examples
- c. Verbal examples

Before Reading - Vocabulary

Suffrage Examples

When the United States was founded only white men with property had <u>suffrage</u>.

At the time of the American Civil War, most white men had been granted <u>suffrage</u>.

21

22

Before Reading - Vocabulary

Suffrage Examples

In 1920, women were granted <u>suffrage</u>. The passage of the Nineteenth Amendment granted women the right to vote in all United States elections.



Before Reading - Vocabulary

Suffrage Examples

The Voting Rights Act of 1965 outlawed discriminatory voting practices that denied suffrage to many African Americans in the United States.





Step 4. Check students' understanding. Option #1. Ask deep processing questions.

Check students' understanding with me.

Why is suffrage a critical aspect of a democracy?

Begin by saying or writing:

Suffrage is a critical aspect of democracy for the following reasons. First,

25

Before Reading - Vocabulary

Step 4. Check students' understanding. Option #2. Have students discern between examples and non-examples.

Check students' understanding with me.

Tell me suffrage or not suffrage.

The right to run for elected office. **not suffrage** Why not? The right to vote. **suffrage** Why? The right to develop ads for a candidate. **not suffrage** Why not?

26

Before Reading - Vocabulary

Step 4. Check students' understanding.
Option #3. Have students generate their own examples.

Check students' understanding with me.

Make a list of ways that **suffrage** could be limited or compromised.

Before Reading - Vocabulary

suffrage noun suffragist noun



In 1917, all women in the United States did not have **suffrage**, the right to vote. **Suffragists** in New York City collected more than a million signatures of women demanding voting rights. They then paraded down Firth Avenue with the signature placards.

27



Vocabulary Routine

- 1. Introduce the word.
- 2. Introduce meaning of word.
- 3. Illustrate the word with examples (and non-examples).
- 4. Check understanding.



Background Knowledge - What

-what one already knows about a subject.
- ...all the knowledge learners have when entering a learning environment that is potentially relevant for acquiring new knowledge.

29

30

Background Knowledge - Why

 Background knowledge of text has a major impact on whether or not a reader can comprehend text.

Anderson & Pearson, 1984; Bransford, Stein, & Shelton, 1984; Wilson & Anderson, 1986

 Across grades and reading ability, prior knowledge of subject area and key vocabulary results in higher scores on reading comprehension measures.

Langer, 1984; Long, Winograd, & Bridget, 1989; Stevens, 1980



Background Knowledge - Why

- Average correlation between person's background knowledge of a given topic and extent to which a person learns new information is .66. Marzano. 2004
- Prior knowledge has a large influence on student performance, explaining 30 to 60% of variance in performance. Docy, Segers, & Buehl, 1999

31



Background Knowledge - Why?

Read this paragraph and explain it to your partner.

From a neuroanatomy text (found in *Background Knowledge* by Fisher and Frey)

Improved vascular definition in radiographs of the arterial phase or of the venous phase can be procured by a process of subtraction whereby positive and negative images of the overlying skull are imposed on one another.



Teach Background Knowledge

BIG IDEA

Even a thin slice of background knowledge is useful.

33





Teach Background Knowledge

Preparation

- 1. What is critical?
- 2. What information would ease acquisition of new knowledge?
- 3. What information would reduce cognitive overload?
- 4. What information will increase interest and motivation?



Chapter 11 The Jackson Era 1824-1845

Section 1

Jacksonian Democracy

Main Idea

The political system of the United States changed under Andrew Jackson.

As you read, ask yourself:

What changes in the political system of the United States occurred under Andrew Jackson?

Andrew Jackson

Background knowledge

President

- 7th President
- **1829 1837**

Early Life

- Parents emigrated from Ireland
- Father died before his birth
- Mother died when he was 14
- Two brothers also died



3

37

Andrew Jackson

Background knowledge

Career - Military

- At 13 joined Continental Army
- Major General of Tennessee Militia
- Led campaign against Creek Indians in Georgia
- In 1815 led military victory over British at the Battle of New Orleans

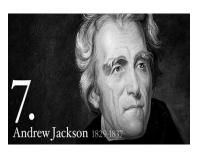


Andrew Jackson

Background knowledge

Career - Politician

- Lawyer
- US Representative
- US Senator
- Circuit Judge
- President



39



Andrew Jackson

Background knowledge

Personal Life

- Married Rachel Jackson
- Two adopted children
- Owned large cotton plantation with 150 slaves
- Killed man in pistol duel



41

Preview - Informational Passage

As the student previews, he/she discovers:

- the topics to be **covered**,
- the information that will be emphasized,
- how the material is organized.
- In addition, background knowledge is activated.

42



Preview - Informational Passage

Warm-Up

Before you read a chapter or a section of a chapter in your science, social studies, or health book, Warm-up. Get an idea of the chapter's content by previewing these parts.

BEGINNING

- Title
- Introduction

MIDDLE

- Headings
- Subheadings

END

- Summary
- Questions

Curriculum Associates, Skills for School Success



Jacksonian Democracy

The Election of 1824

Striking a Bargain
The Adams Presidency

The Election of 1828

Jackson Triumphs

Jackson as President

"Old Hickory" New Voters The Spoils System Electoral Changes

43



- Utilize passage reading procedures that provide adequate reading practice
- Ask appropriate questions during passage reading
- Have students generate questions
- Teach text structure strategies that can be applied to passage reading

Comprehension-Informational Text Reading

- Read (a paragraph or a number of related paragraphs)
- Stop
- Respond
 - answer teacher questions
 - generate questions/answer questions
 - verbally retell content ("Paragraph shrinking")
 - mark text /add notes in the margins
 - take notes
 - map/web content

During Passage Reading

Read Stop Respond

- -Teacher Asks Questions
- Students Answer Questions



Asking questions. A evidence-based, time honored procedure

The teacher asks questions to guide and monitor students' comprehension

(Ambruster, Lehr, & Osborn, 2001; National Reading Panel, 2000; McKeown, Beck, & Blake, 2009)

47

45



During Reading - Ask Questions

The Teacher-Generated Questions

- Divide the material into appropriate segments.
- Develop questions on the content, focusing on the most important understanding that students should construct.

OR

Curriculum Questions

Ask questions provided by the curriculum material.

49



Guidelines for Asking Questions

- Ask text-dependent questions
 - The student must read the text to respond to the question
- Creating better questions
- Ask higher order questions
 - Inferences, predictions, comparisons, summaries
- Scaffold higher order questions with foundation questions on key details
- Scaffold answers with sentence starters
- Use appropriate active participation procedures for asking questions

50



During Reading - Text-Dependent Questions

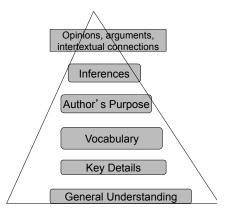
Ask questions that focus on information (evidence) provided in the text.

Students must answer the questions based on passage information NOT on previous experience or personal ideas.

Keep students cognitively in the text... don't draw them out of the text.

During Reading - ScaffoldingFisher & Frey, 2012

Scaffold higher order questions by first asking literal, foundation questions.



51



During Reading - Scaffold Higher Order Questions

Scaffolding Questions

How many political parties were there in 1824?

Four men in the party ran for president. Did Andrew Jackson get a majority of votes?

Which of the 4 candidates received the most votes?

Who did the House of Representatives select as president?

Who helped Adams to be elected as president?

What position in the government was Clay given?

Big Question to be asked:

Why were Adams and Clay accused of making a "corrupt bargain" (stealing the election)?

Sentence Starter: Adams and Clay were accused of making a corrupt bargain because..........



During Reading - Ask Questions

Procedure for asking students questions on text material.

Saying answer to partner (Partners First)

- 1. Ask a question
- 2. Give students thinking time or writing time
- 3. Provide a verbal or written sentence starter or paragraph frame
- 4. Have students share answers with their partners using the sentence starter
- Call on a student to give answer
- Engage students in a discussion

54



During Passage Reading

Read Stop Respond

- Students generate questions
- Students answer questions



During Reading - Students generate and answer questions

Student-Generated Questions based on Headings and Subheadings

- 1. Read the heading or subheading.
- 2. Generate one or two questions.
- 3. Read the section.
- 4. Answer the question.

55



Classifying Rocks

Question	Answer
How do you classify rocks?	Rocks are classified by mineral composition, color, and texture.
How are rocks classified?	



57

How Rocks Form

Question	Answer
Igneous rocks How do igneous rocks form?	
Sedimentary rocks How do sedimentary rocks form?	
Metamorphic rocks How do metamorphic rocks form?	

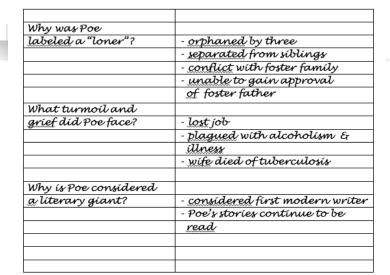
58

60



How Rocks Form

Question	Answer
Igneous rocks	Igneous rocks are formed when magma or lava cools.
Sedimentary rocks	
Metamorphic rocks	



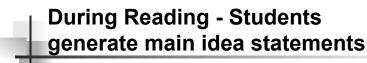


During Passage Reading

Read Stop Respond

- -Students create main idea statements
- -Students respond to teacher or partner questions

61



Paragraph Shrinking

- Name the who or what. (The main person, animal, or thing.)
- 2. Tell the most important thing about the who or what.
- 3. Say the main idea in 10 words or less.

(Optional: Record your main idea sentence.)

(From the PALS program by Fuchs, Mathes, and Fuchs)

62



9.1 Early Brain Development The Developing Child Application of Paragraph Shrinking

- A baby's brain develops rapidly in the first year of life.
- 2. When baby is given quality experiences, brain development accelerates.
- 3. Neural pathways form and control body functions and thinking.
- 4. The brain uses sensory input to build neural pathways.
- 5. Most actions of newborns are instinctive reflexes
- Baby gains many skills that result for development of brain.

During Passage Reading

Read Stop Respond

- Students "mark" the text
- Students write notes in the margins



- 1. Number the paragraphs
- 2. Circle the topic and/or key terms
- Underline the author's claims or other critical information



During Reading - Students write notes in the margins

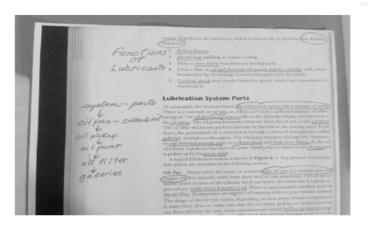
- Notes in the margin might include:
 - A drawing to illustrate a point
 - A summary of the content
 - Key vocabulary terms and definitions
 - Responses to interesting information, ideas, or claims

65

66



The Car Care Book, 4^{th} Edition by Ron Haefher Marking the Text



-

During Passage Reading

Read Stop Respond

- Students take notes
- Students map/web the content

During Reading - Students take two column notes

Antarctica	- far south continent
	- South Pole
	- Covered with ice
Weather	- Harsh
	- Below Freezing
	- Windy
Living Things	- Few
	Antarctica, the most southern continent, has very harsh weather and is covered in ice. Few living things survive on Antarctica.

Organs

Systems

69

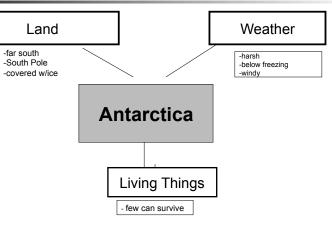


Interactive Science 8th Grade Cornell Notes Discovering Cells What are cells? · all living things are made of cells · cells are basic unit of structure and function Cells and structure · structure of living things determined by how cells are put together Cells and function · processes to live, grow, reproduce Summary All living things made of cells. Cells provide structure of organisms and cells carry out functions that allow organisms to live, grow, and reproduce.

> -far south -South Pole

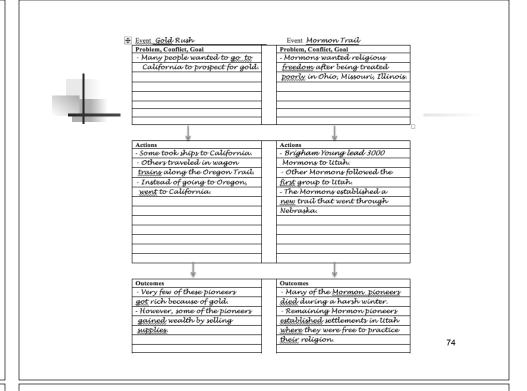
70





Event	Event
Problem, Conflict, Goal	Problem, Conflict, Goal
Actions	Actions
Outcomes	Outcomes

73





Read Think (and Mark) Paraphrase Visualize Represent Visually Create a number sentence / equation Solve Verify Explain/Justify

Preview - After Reading Strategies

- Have students complete or generate graphic organizers that summarize critical information
- Have students write in response to a passage:

76

- Summary
- Compare and Contrast
- Opinion



After Reading - Graphic Organizers

The teacher:

- Provides students with a graphic organizer that reflects the structure of the text material
 - Central Idea
 - Hierarchy
 - Compare/Contrast
 - Sequence of Events
 - Cause/Effect
 - Problem/Solution

77

After Reading - Graphic Organizers

- After completing the graphic organizer, students:
 - Teach the content on the graphic organizer to their partners
 - Use the graphic organizer as a support during class discussions
 - Write a summary of the content based on the graphic organizer

78

Write a Summary - Writing Frames

Antarctica is the The land is covered to the	e coldest continen ered with	t on the earth.
		The temperature
stays below		and the
	constantly blow.	Because of
these condition	ns, not many	things
are found on th	nis continent.	-

Write a Summary - Writing Frames

Summary of Informational Text Chapter: _____ Topic: _

- In this section of the chapter, a number of critical points were made about ...
- First, the authors pointed out that...
- This was important because...
- Next, the authors mentioned that...
- Furthermore, they indicated...
- This was critical because...
- Finally, the authors suggested that...



Write a Summary - writing Frames

Chapter: Drifting Continents Topic: Wegener's Theory

In this section of the chapter, a number of critical points were made about Alfred Wegener's theory of continental drift. First, the authors pointed out that Wegener believed that all the continents were once joined together in a single land mass that he called Pangaea that drifted apart forming the continents of today. This was important because it explained why the outline of the continents as they are today fit together. Next, the authors mentioned that Wegener argued that there were many pieces of evidence supporting his theory of continental drift. Furthermore, they indicated that Wegener used evidence of similar landforms and fossils on different continents to prove his theory. This was critical because this evidence could be validated by other scientists. Finally, the authors suggested that despite this evidence, other scientists did not accept Wegener's theory because he could not explain the force that pushes and pulls the continents.

81

Write a Summary - Writing Frames

Summary of Opinion Article

- Name of Article:...
 Author: ...
 Topic: ...
 In this article, ______. discusses...
 The author's primary claim is that
 First, she/he states....
- She/he then points out that ...
- In addition, _____, indicates that....
- Finally, she/he conclude.....

82

84

Write a Summary - Writing Frames

Summary of Opinion Article

- Name of Article:...
- Author: ...
- Topic: ...
- In this article, _____. discusses...
- The author's primary claim is that
- First, she/he states....
- She/he then points out that ...
- In addition, _____, indicates that....
- Finally, she/he conclude.....

Write a Summary - Writing Frames

Name of Article: The Writing Revolution

Magazine/Journal: the Atlantic (September, 2012)

Author: Peg Tyre
Topic: Writing Instruction

In this article, *Peg Tyre* discusses writing instruction in today's schools. The author's primary claim is that a return to traditional, explicit instruction on the fundamentals of writing could be the answer to poor writing exhibited in schools. First, she states that teachers at New Dorp High School determined that their students poor performance was due to the fact that they could not express their ideas on paper. She then points out that when New Dorp adopted intense, explicit instruction on the skills of analytic writing, test scores and graduation rates improved. In addition, Tyre indicates that thinking, speaking, and reading skills are strengthened through writing instruction. Finally, she concludes that a return to traditional writing instruction may be the key to improving the writing skills of failing students.



Write down the topic of the summary.

List - Make a list of important ideas.

Cross-out - Cross out any unnecessary or weak ideas.
 Connect ideas that could go in one sentence.

- Number the ideas in the order that they

will appear in the paragraph.

List - Make a list of important ideas.

Penquin's birth

- Male takes care of egg
- Female lays egg
- Female leaves
- Female spends winter at sea
- The water is very cold
- Male puts egg on his feet under belly
- Male stays on egg for two months
- Male doesn' t eat
- Egg hatches
- Male must care for baby

85

Cross-out - Cross out any unnecessary or weak ideas.

Connect ideas that could go in one sentence.

Penquin's birth

Number

Male takes care of egg

Female lays egg

<u> F</u>emale leaves

Female spends winter at sea

The water is very cold

Male puts egg on his feet under belly

Male stays on egg for two months

Male doesn' t eat

Egg hatches

_Male must care for baby



Number - Number the ideas in the order that they will appear in the paragraph.

Penquin's birth
3 Male takes care of egg
1 Female lays egg
2 Female leaves
Female spends winter at sea
The water is very cold
Male puts egg on his feet under belly
4 Male stays on egg for two months
5 Male doesn't eat
Egg hatches
6 Male must care for baby

87



Write a summary - Strategy

The birth process of penguins is fascinating and quite different from that of other animals. The female penguin lays an egg. However, the female penguin leaves soon after laying the egg and spends the winter in the sea. Meanwhile the male must take care of the egg. For two months, he places the egg on his feet under his belly. During this time, the male penguin doesn't eat. Even after the baby penguin hatches, the male penguin continues to take care of the infant penguin.

