

Worksheet

1

# What kinds of creatures live in the sea?

## Task 1

How can you classify the following creatures?

① Salmon



② Eel



③ Squid



④ Tuna



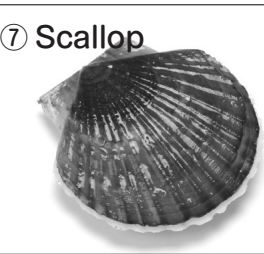
⑤ Crab



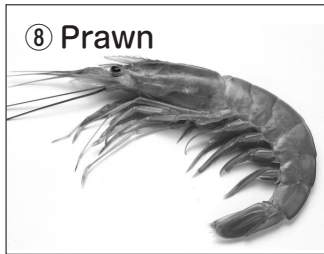
⑥ Whale



⑦ Scallop



⑧ Prawn



⑨ Octopus



⑩ Dolphin



## Task 2

What other creatures belong to the classifications you made in Task 1?

## Task 3

Write down your thoughts to the Research Question.



# How does the sea sustain our eating habits?

## Task 1

List sea products that you eat regularly. Where and how many of them are they caught?

## Task 2

How are the food products you listed in Task 1 transported from the sea to your dining table?

## Task 3

Write down your thoughts to the Research Question.

-----

-----

-----

-----

-----

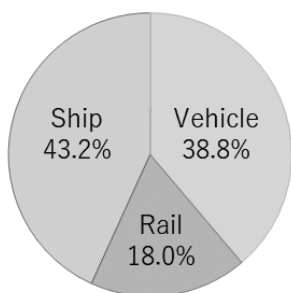


# Why is transportation by ship so important for Japan?

## Task 1

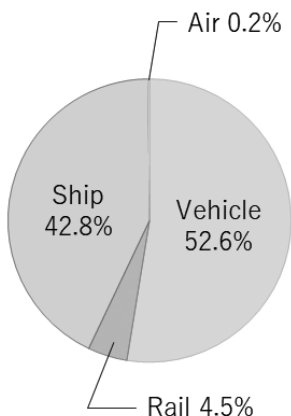
The following charts show transportation used in Japan in different eras. What do you learn from this?

FY 1970



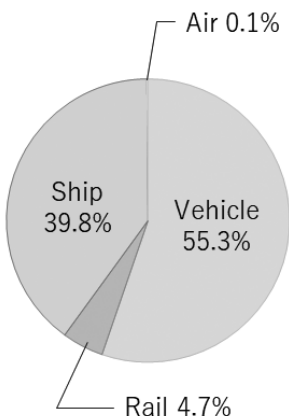
Total: 350,264 ton-km

FY 1995



Total: 557,356 ton-km

FY 2020



Total: 385,111 ton-km

Source: "Changes in Freight Tonne Kilometers by Transportation Means" from MLIT Traffic-Related Statistics

## Task 2

What are the advantages of transportation by ship?

## Task 3

Write down your thoughts to the Research Question.



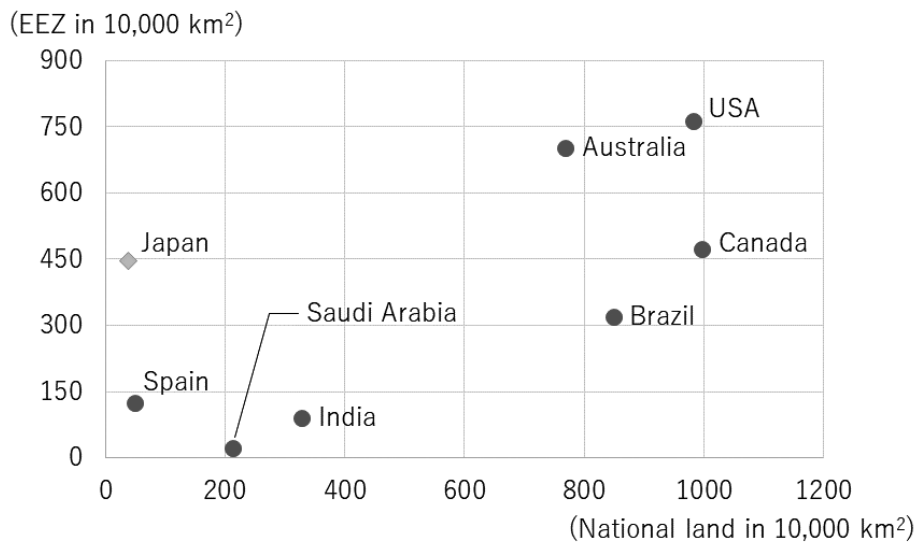
Worksheet 4

# What are the possibilities from ocean resources?

## Task 1

What do you learn from the following chart?

Gross areas of national land and exclusive economic zones (EEZ)



Source: Territorial waters data of Japan Coast Guard ([https://www1.kaiho.mlit.go.jp/ryokai/ryokai\\_setsuzoku.html](https://www1.kaiho.mlit.go.jp/ryokai/ryokai_setsuzoku.html)) for Japan's EEZ area and "Limits in the Seas - Theoretical Area Allocations of Seabed to Coastal States, No.46 (1972)" published by the US Department of State for EEZ areas of the other countries

## Task 2

What kinds of ocean resources are there?

## Task 3

Write down your thoughts to the Research Question.

**Worksheet 5**

# What is causing the number of sea creatures to decrease?

## Task 1

What do you learn from the following pictures?



## Task 2

Study negative changes for sea creatures and the causes of change.

## Task 3

Write down your thoughts to the Research Question.



# How are global environmental issues and the ocean related?

## Task 1

How do global environmental issues affect the ocean and living things in the ocean?

## Task 2

What functions of the ocean work against global warming?

## Task 3

Write down your thoughts to the Research Question.

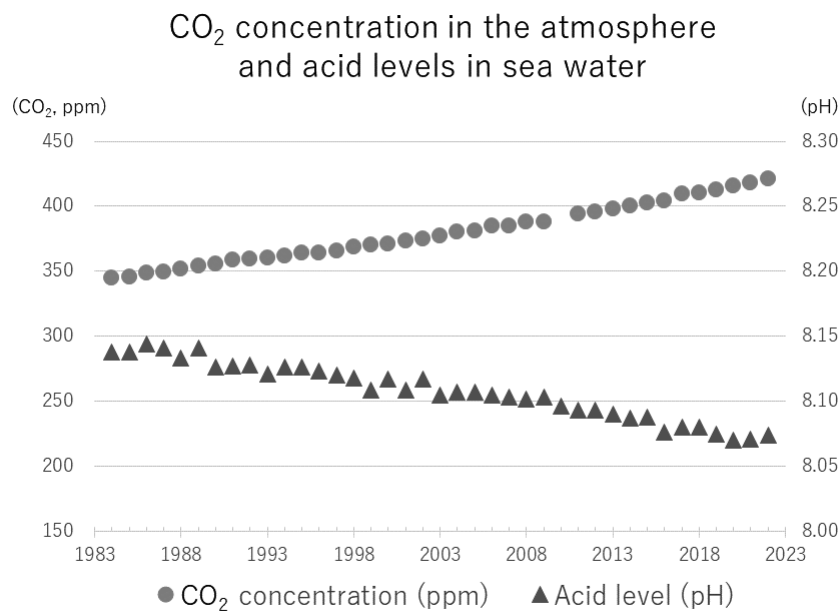


Worksheet 7

# What changes occur in the ocean when the carbon dioxide level in the atmosphere rises?

## Task 1

What do you learn from the following chart?



## Task 2

What changes occur in sea creatures when the acid level of sea waters changes?

## Task 3

Write down your thoughts to the Research Question.

Worksheet **8**

# What can we do to conserve the ocean's diversity?

**Task 1**

Thinking about what you have learned so far, what can you do or would you like to do to protect the ocean's diversity?

**see also**

- **Efforts of JAMSTEC toward SDGs**  
<https://www.jamstec.go.jp/sdgs/j/>



- **UN Decade of Ocean Science for Sustainable Development**  
[https://www.jamstec.go.jp/rigc/j/pdf/JAMSTEC\\_SDGs\\_Pamphlet\\_Web.pdf](https://www.jamstec.go.jp/rigc/j/pdf/JAMSTEC_SDGs_Pamphlet_Web.pdf)



- **"Marine Debris AI" to detect debris from coastal photos**  
<https://www.jamstec.go.jp/j/pr/topics/20220600/>



- **What are ocean-friendly materials?**  
<https://www.jamstec.go.jp/j/pr/topics/20220608/>



- **Deep-sea VR - Landing on the sea bed (special edition)**  
<https://www.youtube.com/watch?v=uEr30Viwis8>



Grade:

Class:

No.:

Name:

**Review**

# Review Sheet 1

Write about what you have learned, any questions that remain unresolved, and your thoughts.

Date:

-----

-----

-----

-----

-----

-----

Date:

-----

-----

-----

-----

-----

-----

Date:

-----

-----

-----

-----

-----

-----



Grade:

Class:

No.:

Name:

Review

# Review Sheet 2

Write about what you have learned, any questions that remain unresolved, and your thoughts.

Date:

Handwriting practice lines for the first review section, consisting of five horizontal dashed lines.

Date:

Handwriting practice lines for the second review section, consisting of five horizontal dashed lines.

Date:

Handwriting practice lines for the third review section, consisting of five horizontal dashed lines.



Grade:

Class:

No.:

Name:

Supplement

# Connecting with Things around You 1

How does what you have learned/will learn from this text relate to things around you and your life? Write down your thoughts.

Date:

Date:

Date:



Grade:

Class:

No.:

Name:

**Supplement**

## Connecting with Things around You 2

How does what you have learned/will learn from this text relate to things around you and your life? Write down your thoughts.

Date:

---

---

---

---

---

---

Date:

---

---

---

---

---

---

Date:

---

---

---

---

---

---



Grade:

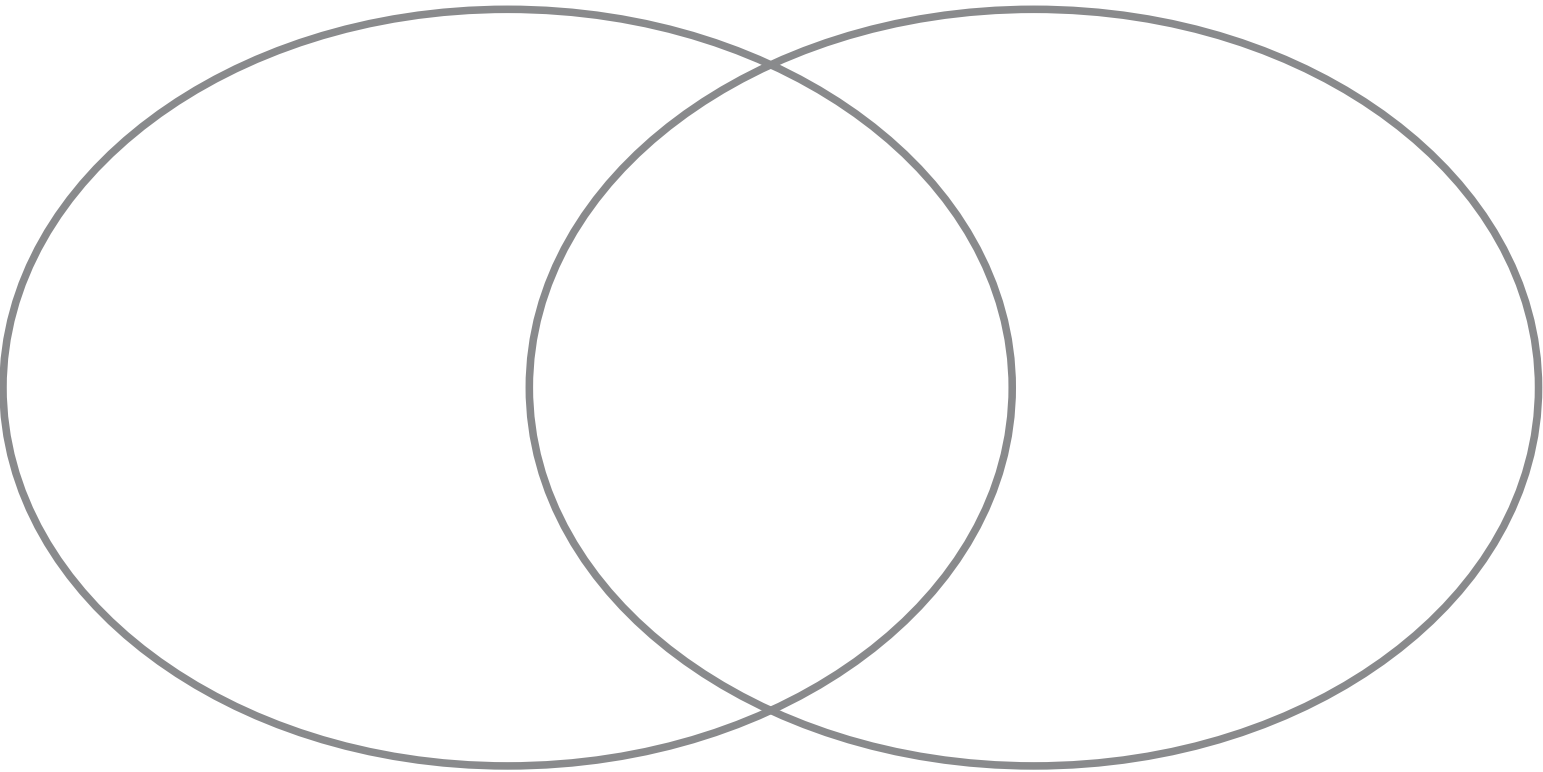
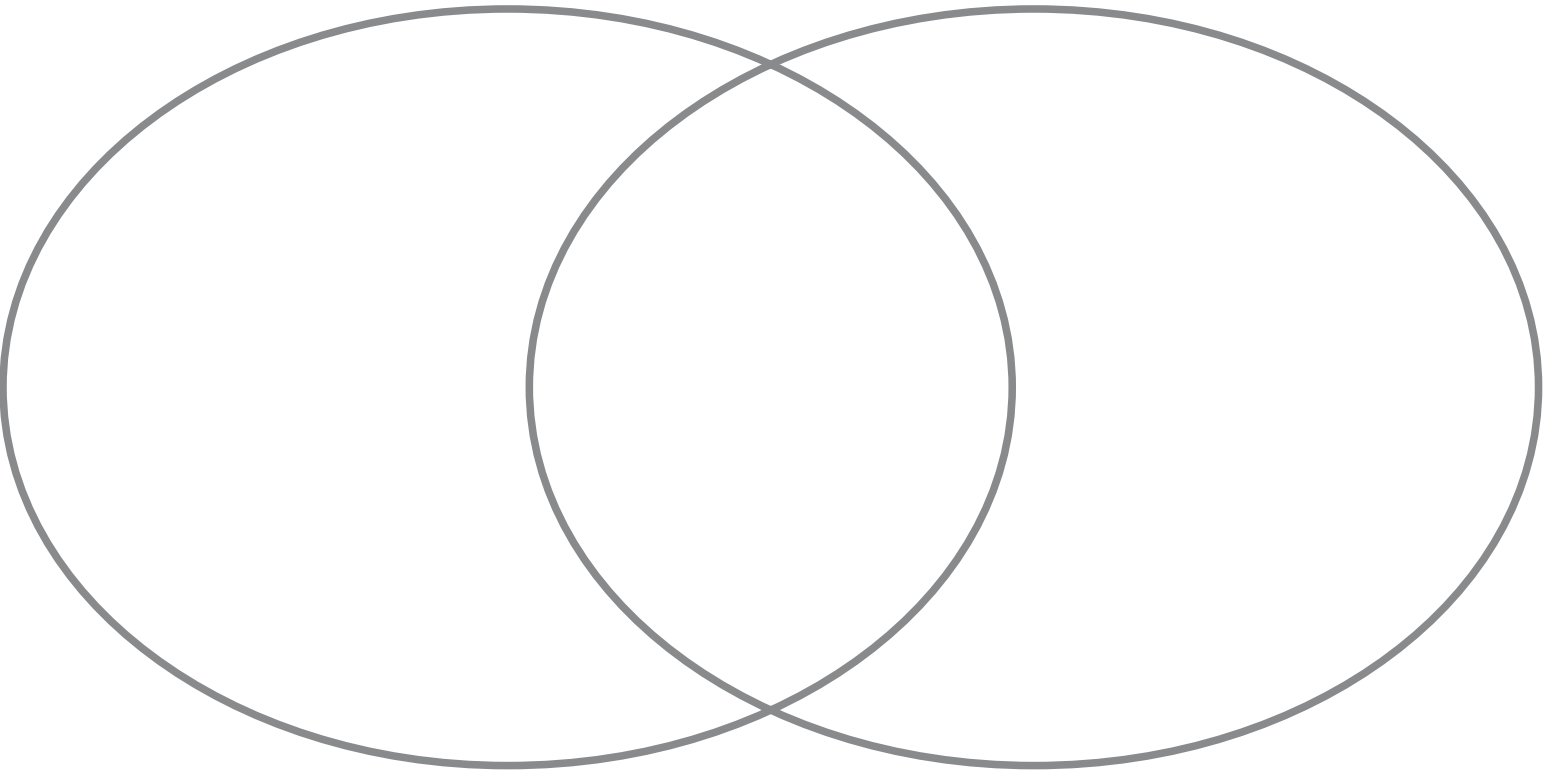
Class:

No.:

Name:

Thinking Tool

# Venn Diagram





Grade:

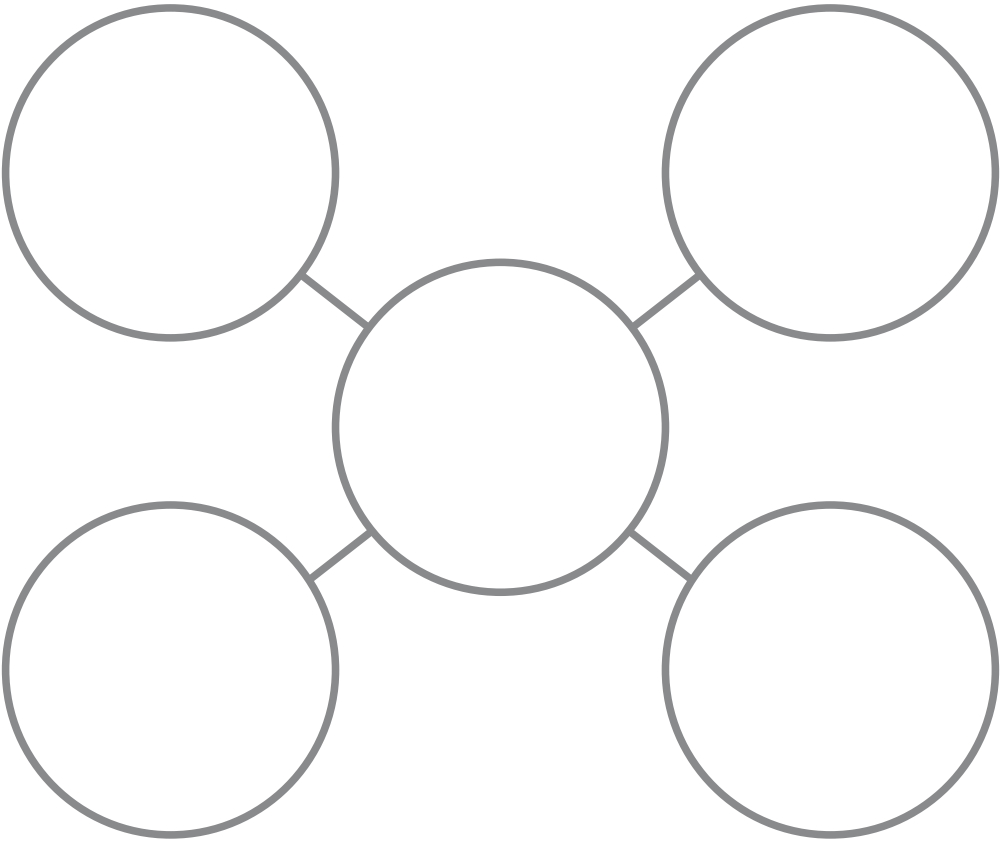
Class:

No.:

Name:

Thinking Tool

# Image Map





Grade:

Class:

No.:

Name:

Thinking Tool

# Bear Hand Chart

A large, empty Bear Hand Chart template. It features a central vertical line that divides the chart into two columns. On each side of the central line, there are four horizontal lines of varying lengths, creating a series of rectangular boxes for writing. The lines are drawn in a light gray color.

A second, identical large, empty Bear Hand Chart template, positioned below the first one. It also features a central vertical line and four horizontal lines on each side, forming rectangular boxes for writing.



Grade:

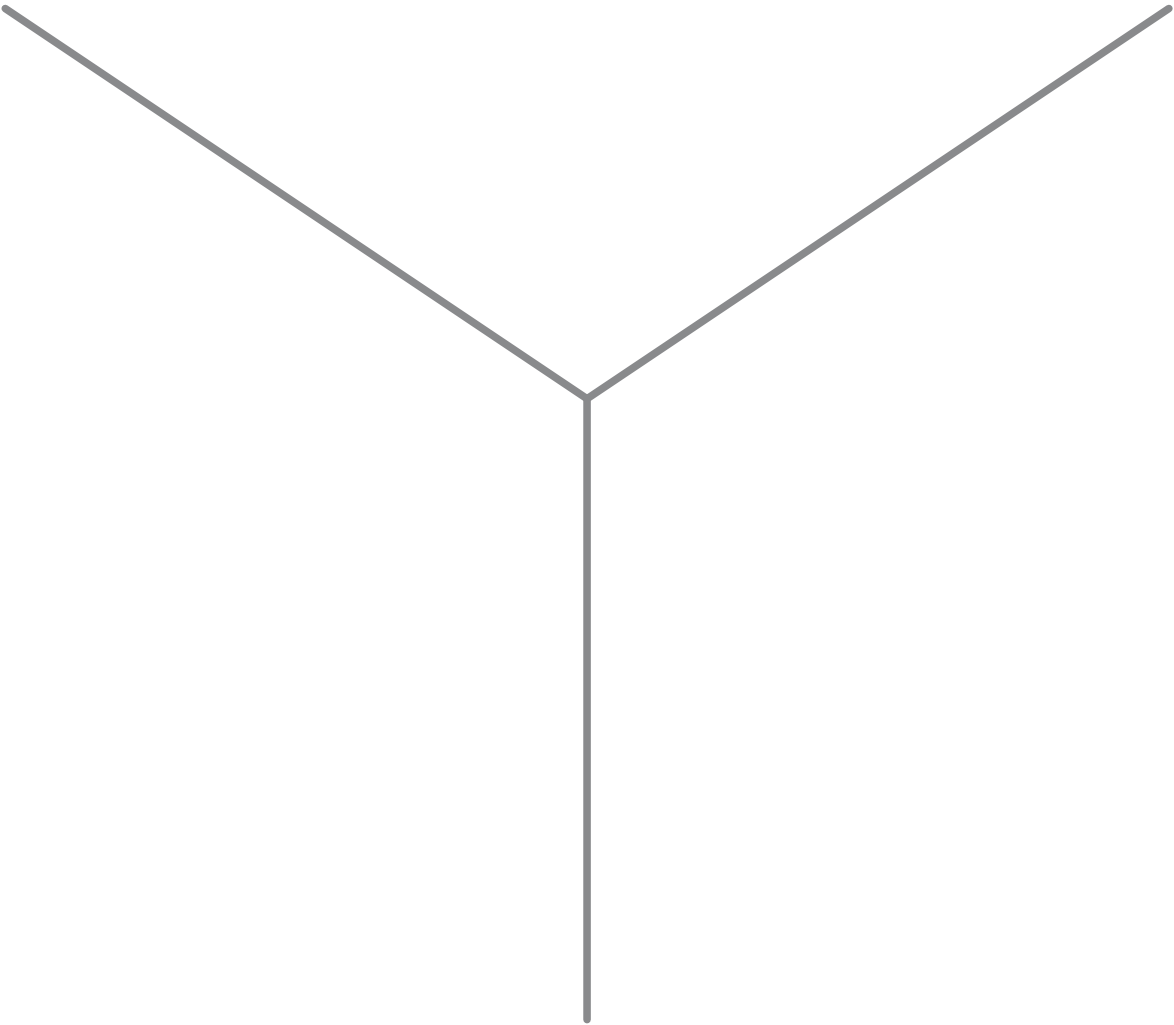
Class:

No.:

Name:

Thinking Tool

# Y Chart





Grade:

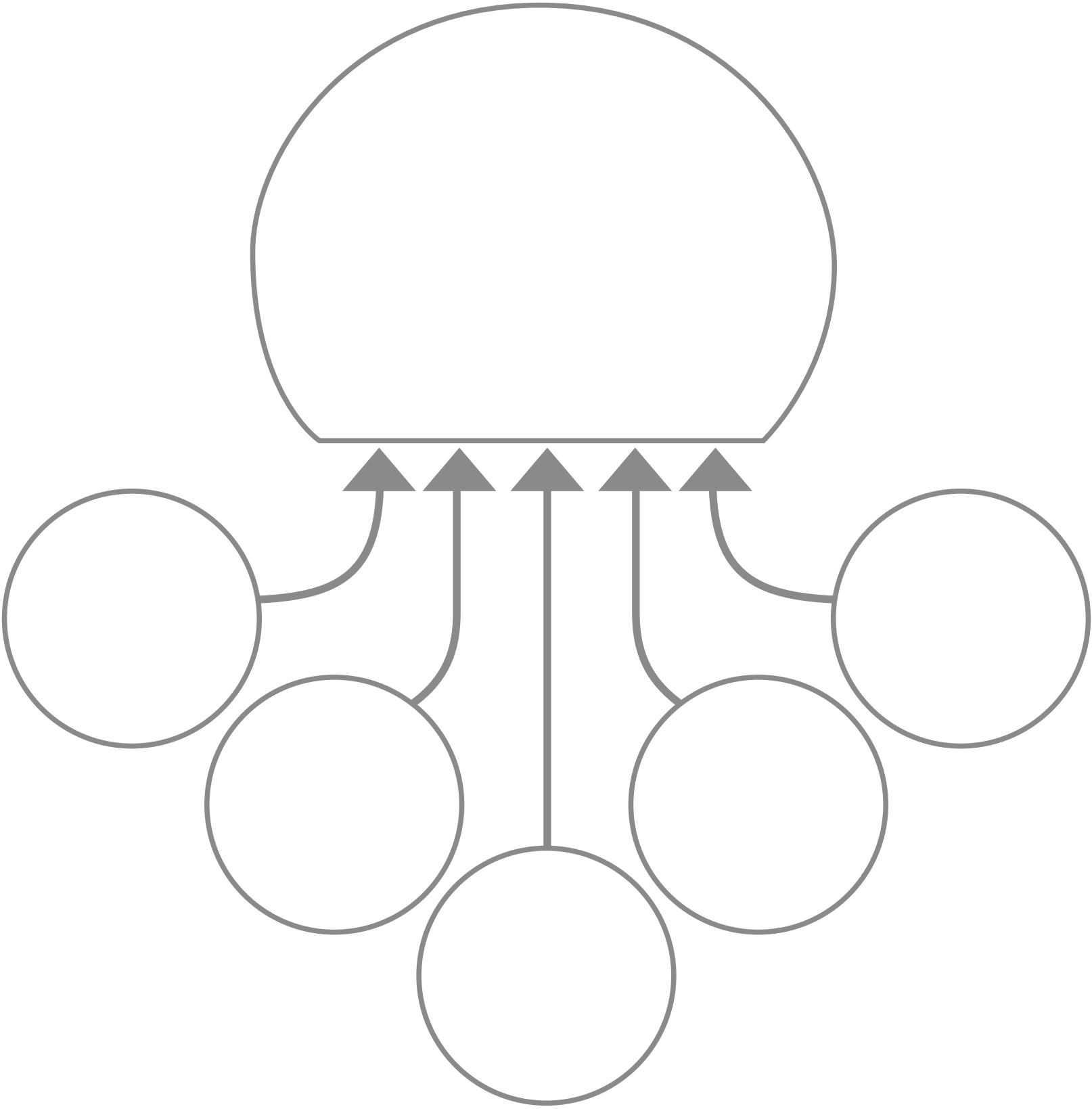
Class:

No.:

Name:

Thinking Tool

# Jellyfish Chart





Grade:

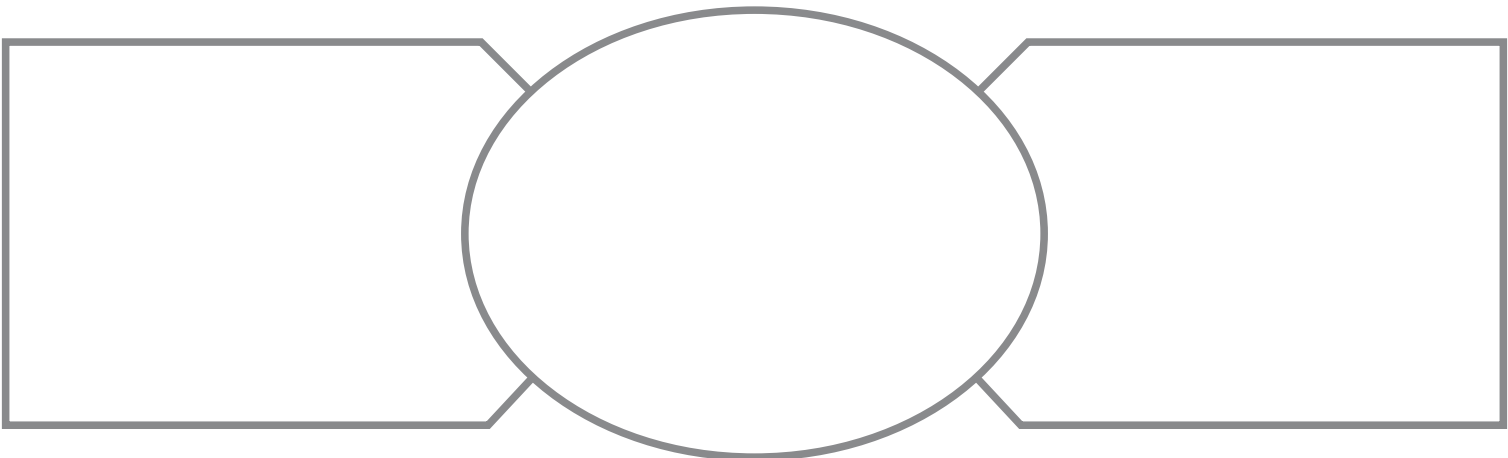
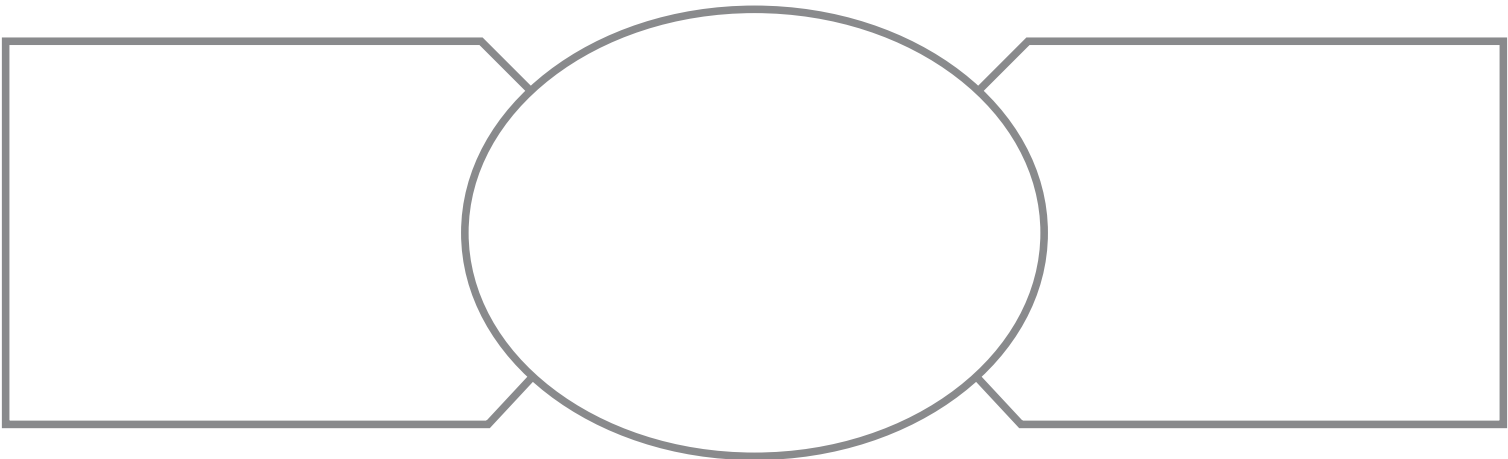
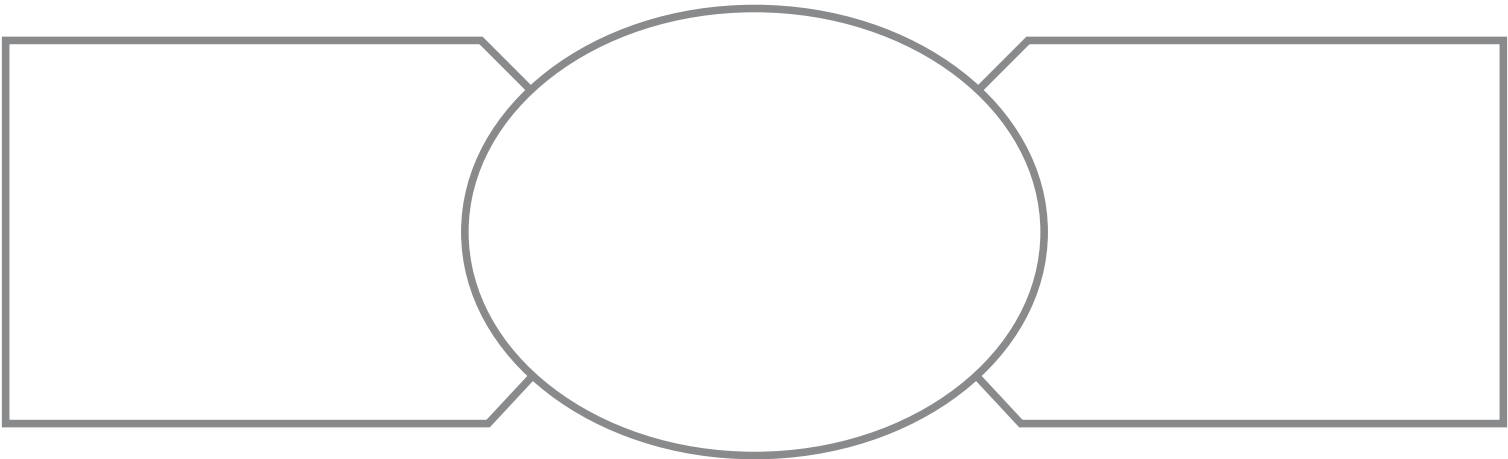
Class:

No.:

Name:

Thinking Tool

# Candy Chart





Grade:

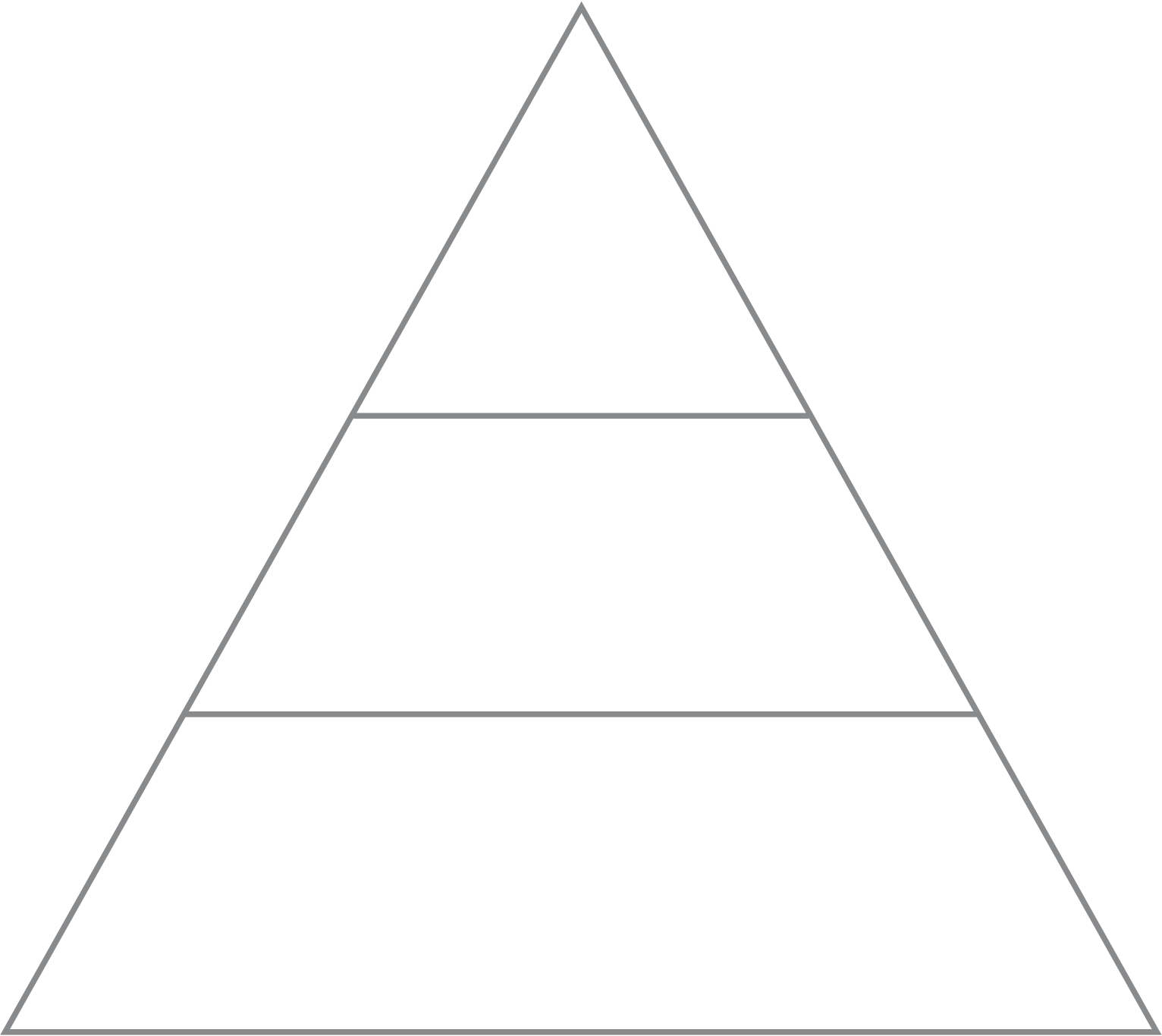
Class:

No.:

Name:

Thinking Tool

# Pyramid Chart





Grade:

Class:

No.:

Name:

Thinking Tool

# Onion Chart

