

## TARGETED QUESTIONS

Develop robust classroom dialogues around what is seen and heard in the [video](#). Students are encouraged to activate their prior knowledge and apply it to the conversation. By prompting the use of higher-order thinking skills, students analyze and evaluate.

### VISUAL ARTS

#### Ask Students:

“What do you know about world history in the 1850s when this print was created? Can looking at *Awa Province: Naruto Whirlpools* tell us anything about the culture and history of Japan during this time?”

Linked to Standard: Grades 9-12. Foundations Visual Art. Connecting. 11. Relate artistic ideas and works to societal, cultural and historical contexts to deepen understanding. Identify the connections between historical and cultural contexts and define stylistic elements of artistic movements (e.g., how the impact of World War II influenced the western art world and shifted focus from Europe to New York City). (F.V.Co.11)

#### Ask students:

“Compare and contrast the print *Awa Province: Naruto Whirlpools* with imagery of the actual whirlpools. Which artistic elements make the artwork unique?”

Linked to Standard: Grades 9-12. Proficient Visual Arts. Responding. 8. Interpret intent and meaning in artistic work. Compare and contrast the artistic elements that make art unique (e.g., compare and contrast how contemporary installation art is different from contemporary realistic portraits). (P.V.R.08)



### SCIENCE

#### Ask Students:

“Think about Newton’s laws of motion. How might we figure out the velocity at which the whirlpools are moving, and how could this velocity be changed (either sped up or slowed down)?”

Linked to Standard: Grades 9-12. Physics. Motion and Stability: Forces and Interactions. HS-PS2-10(MA). Use free-body force diagrams, algebraic expressions, and Newton’s laws of motion to predict changes to velocity and acceleration for an object moving in one dimension in various situations.

### ENGLISH LANGUAGE ARTS

#### Ask Students:

“In the video we learn that the Naruto Whirlpools are a real natural phenomenon. If you wanted to conduct research to learn more about them, how does viewing artwork of the whirlpools aid in your research? In addition to artworks, which sources could you go to find more information to answer your research questions?”

Linked to Standard: Grades 11-12. Writing Standards for Literacy in the Content Areas [WCA]. Research to Build and Present Knowledge. 7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

### HISTORY & SOCIAL SCIENCE

#### Ask Students:

“We learn from the video that *Awa Province: Naruto Whirlpools* is just one artwork in a series capturing Japan’s famous natural landmarks in provinces. Think about the modernization and industrialization of Japan in the 1800s. What can this artwork tell us about Japanese people’s view of modernization and industrialization at this time?”

Linked to Standard: Grades 9-12. World History II. Topic 3. The global effects of 19th century imperialism [WHII.T3]. 3. Analyze the impact of Western imperialism in Asia, Africa, and Latin America. b. the rapid modernization and industrialization of Japan.

# RIGOROUS CHALLENGES

Encourage students to respond to the [video](#) in ways that are driven by the creative process. Students' final products will differ as they apply their own unique skills, knowledge, and interpretations to the challenge.

## VISUAL ARTS

### Challenge Students:

“Study Japanese Ukiyo-e prints and determine the characteristics of these artworks. Produce at least one print that reflects the characteristics that you identified.”

Linked to Standard: Grades 9-12. Foundations Visual Arts. Creating. 1. Generate and conceptualize artistic ideas and work. Create artistic ideas that reflect characteristics of different artistic movements from different cultures (e.g., study art by different individual 20th century Australian aboriginal artists and choose one as an inspiration for a composition. (F.V.Cr.01)

### Challenge Students:

“Complete a plan—including sketches—for a series of prints that illustrate at least three important natural landmarks in the USA. Consider how you will depict the characteristics of each landmark through intentional use of elements of art and principles of design.”

Linked to Standard: Grades 9-12. Proficient Visual Arts. Creating. 2. Organize and develop artistic ideas and work. Document a plan for an original large scale or multi-step art project (e.g., sketches for an art installation at a playground). (P.V.Cr.02)

## HISTORY & SOCIAL SCIENCE

### Challenge Students:

“Identify and analyze other artworks from the 1850s, especially those made in Europe. Find visual ways that Japanese art, like the print *Awa Province: Naruto Whirlpools*, impacted and influenced European art. Explain to the class where and how you have identified influence from Japanese art in the artworks you've selected.”

Linked to Standard: Grade 9-12. World History II. Topic 3. The global effects of 19th century imperialism [WHII.T3]. 4. Analyze the cultural impact of colonial encounters and trade on people in Western nations, drawing on examples such as:

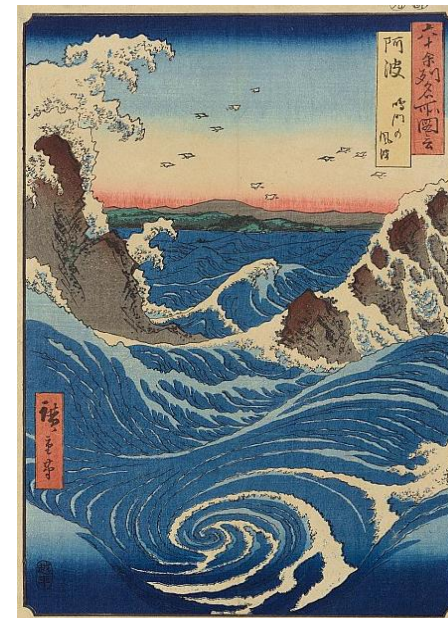
e. the influence of Japanese and African art on European art styles of impressionism and cubism.

## SCIENCE

### Challenge Students:

“The power of water in motion can be harnessed to produce electricity. Using your knowledge about converting one form of energy to another, design a device that could work in the *Naruto Whirlpools* to generate hydroelectric power. If an artist created an artwork after the device was installed, how would the artwork look different than the original print *Awa Province: Naruto Whirlpools*?”

Linked to Standard: Grade 9-12. Physics. Energy. HS-PS3-3. Design and evaluate a device that works within given constraints to convert one form of energy into another form of energy.



## ENGLISH LANGUAGE ARTS

### Challenge Students:

“Choose and research a famous natural landmark. Give an oral presentation to the class to persuade people to visit the site, but include opposing viewpoints showing why one might argue not to visit the landmark (for example, it is located in a dangerous part of the world, or it is expensive to travel to). In your presentation include supporting facts, details, and visual examples, like artworks.”

Linked to Standard: Grades 11-12. Speaking and Listening Standards [SL]. Presentation of Knowledge and Ideas. 4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, vocabulary, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.