



# Instructor Packet

*Everything you need to make the most of your Dream Flight Adventures mission*



## Introduction

Dream Flight Adventures is an interactive learning experience teaches **teamwork, critical thinking, and problem solving** by blending **science, technology, and engineering** with **social studies, humanities, and the arts**. In other words, it's a **real-life "Magic School Bus."** It's part simulator, part game, and part theater—and it creates an out-of-this-world experience!

The Dream Flight Adventures experience centers around an educational adventure that takes place in one of our full immersion simulators. Groups of students enter the simulator, work together to operate it, and go on incredible adventures. They travel to outer space, under the sea, back in time, through the body—anywhere their imaginations take them!

Students become the captain and crew of these simulators and must **work together** to complete their missions, and their success or failure can depend on the action of a single person. Our missions are **completely flexible and open-ended**. Students must **think creatively**, and each action can change the outcome of the mission.

Dream Flight Adventures builds upon the 20+ years of experience of the Christa McAuliffe Space Education Center, which has enriched the lives of over 300,000 children. Our missions are designed around **Common Core and state standards** by professional educators and are brimming with educational content. And the kids love them! They're often described as "better than Disneyland."

Our adventures use science fiction and fantasy contexts to expose students to **standards-based curriculum**, thought-provoking **social and ethical issues**, and crucial **21st Century skills**. These unique adventures create a strong emotional experience. This helps imbue the concepts deeply in our students' memory, so the lessons they learn remain with them for their lifetimes.

## How To Use This Packet

Whether you're a frequent visitor or taking your class to Dream Flight Adventures for the first time, this packet contains all the information you'll need to make the most out of a Dream Flight Adventures mission. It includes background information about the simulator and mission, instructions to prepare your students, and a variety of lesson plans and curriculum-based activities that supplement the mission. We want your experience with Dream Flight Adventure to be unforgettable from beginning to end.



## Preparation Guide & Checklist

This packet is loaded with all sorts of materials to help you integrate your Dream Flight Adventures mission seamlessly into your existing lesson plans. That said, this packet can be a little daunting at times. Please take advantage of the following checklist to make sure you and your students are fully prepared for an unforgettable experience.

### Getting Started

- ☐ Review the available missions at [www.dreamflightadventures.com/missions](http://www.dreamflightadventures.com/missions) and select one that matches your curriculum or seems interesting to your students.

Each mission has multiple curriculum touch-points. If you need help deciding which one is best for your students, please contact us via [www.dreamflightadventures.com/contact](http://www.dreamflightadventures.com/contact). We're eager to help!

- ☐ Schedule your adventure by contacting us at [www.dreamflightadventures.com/contact](http://www.dreamflightadventures.com/contact).

### Preparing for the Adventure

- ☐ Start by reviewing the **Simulator Overview** section of this packet, which describes the simulator experience and curriculum.
- ☐ Pay particular attention to the *Student Stations* section, which describes the various roles your students will have during the adventure.

You may consider assigning these roles to your students in advance. The *Student Stations* section includes several pointers about what type of student is most appropriate for each role. For an even richer experience, allow your students to complete the *Infinity Knights Job Application* project in the **Lesson Plans & Curriculum-based Activities** section.

- ☐ Review the *Mission Introduction* for your mission with your students. This introduction is included in the **Mission Materials** section of this packet.

The *Pre-Mission Diary* project, included in the **Lesson Plans & Curriculum-based Activities** section of this packet, provides a great way for students to reflect on their upcoming adventure.



## The “Big Day”

- ☐ Arrive on time to maximize your students’ time inside their simulator adventure.
- ☐ Watch the adventure unfold. While your students are engulfed in their fully immersive adventure, you are welcome to join the Dream Flight Adventures staff behind the scenes to watch your students in action.

## Aftermath

- ☐ Hold a class discussion with your students. Review how the mission relates to material you’ve covered in your curriculum.

The *Mission Debrief Class Discussion Guide*, included in the **Lesson Plans & Curriculum-based Activities** section of this packet, contains several thought-provoking and mission-specific questions to help spur discussion.

- ☐ Allow your students to reflect on the adventure, record their experiences, and share what they have learned.

The *Multimedia Mission Memoir* project, included in the **Lesson Plans & Curriculum-based Activities** section of this packet, helps students think through their mission’s underlying concepts through the creative use of multimedia.

- ☐ Look ahead. Each of our missions blends a wide variety of topics. While you may have already addressed some of these topics in your lessons, others might still be down the road. Review the mission’s curriculum topics and prepare to reflect back on the mission in future lessons. The curriculum topics associated with the mission are listed in the *Mission Overview*, found in the **Mission Materials** section of this packet.



# Simulator Overview

*A quick look at the where the magic happens*



## Full Immersion Simulators

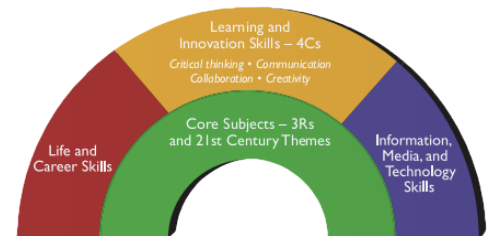
Dream Flight Adventure simulators are **immersive interactive environments** that throw students into the middle of epic stories. These stories are standards-based and built around core curriculum topics in science, social studies, technology, history, literature, and the arts.

Students become **active participants** in these stories, not passive observers. They must **learn how to operate the technology controls**, and then they must **apply that knowledge** in pursuit of their mission.

By virtue of the simulator's design, each mission—regardless of content—teaches over **forty 21st century skills**, which are organized below according to the [Framework for 21st Century Learning](#).

### Life and Career Skills

- Leadership & responsibility
- Productivity & accountability
- Cross-cultural interaction
- Initiative & self-direction
- Flexibility & adaptability
- High-stakes decision making
- Giving & following directions
- Planning
- Cost/benefit analysis
- Scarce resources & tradeoffs
- Prioritization
- Law enforcement
- Medicine
- Forensics
- Emergency response



### Learning and Innovation Skills

- Critical thinking
- Problem solving
- Creativity and innovation
- Teamwork & collaboration
- Written communication
- Verbal communication
- Situational analysis
- Interpersonal relations

### Information, Media, & Technology Skills

- Computers
- Music & sound
- Information literacy
- Cybersecurity
- Cryptology
- Acceleration
- Waveforms
- Additive color mixing

### Core Subjects and 21st Century Themes

- Anatomy
- Immune systems
- Genetics & mutation
- Drama
- Acoustics
- Vital signs
- Navigation
- Atmospheric conditions
- Summarization

Each mission also includes its own unique curriculum aligned to Common Core and state standards. These missions all includes several relevant **STEM topics**; topics from **history, literature, and the humanities**; and thought-provoking **social or ethical issues**.





## Student Stations

During a Dream Flight Adventure mission, groups of students must work together as a team to accomplish a challenging objective. Each student is assigned a station and has individual responsibility for his or her role, which contains several important tasks. Our simulators support groups of 4-16 students at a time. The stations are:

### Captain

The Captain is responsible for making all command decisions and ensuring that the mission is completed successfully. The Captain also serves as the official representative of the Infinity Knights.

***Embedded Concepts:***

Leadership, verbal communication, high-stakes decision making, group cohesion and morale

***Selection Suggestions:***

The Captain should be a student who can speak clearly and think on his or her feet. Level-headed students with strong leadership skills tend to make good Captains.

### First Officer

The First Officer is responsible for ensuring that the captain's orders are carried out. The First Officer will assume command in the event that the Captain is disabled.

***Embedded Concepts:***

Situational analysis, teamwork, leadership, summarization, oral communication, multitasking

***Selection Suggestions:***

The First Officer should be a student who interacts easily with his or her peers, follows directions, and exhibits strong leadership abilities. Students who pay close attention to detail tend to make good First Officers.



## Second Officer

The First Officer is responsible for ensuring that the captain's orders are carried out. The First Officer will assume command in the event that the Captain is disabled.

### ***Embedded Concepts:***

Situational analysis, teamwork, leadership, summarization, oral communication, multitasking

### ***Selection Suggestions:***

The Second Officer should be a student who interacts easily with his or her peers, follows directions, and exhibits strong leadership abilities. Students who pay close attention to detail tend to make good Second Officers.

## Pilot & Navigator (1 or 2 students, depending on the simulator)

The Pilot and Navigator are responsible for navigating the ship. This involves understanding the current location, charting a course to the destination, and steering the ship.

### ***Embedded Concepts:***

Cartography, 2D representations of 3D space, compass directions, velocity and inertia, acoustics

### ***Selection Suggestions:***

The Pilot should be a student with strong spatial perception skills and the ability to multitask well. Students who play video games in their spare time and have a good sense of direction tend to make effective Pilots. However, hyperactive students are **discouraged** from being Pilots.

## Biologist

The Biologist is responsible for mutating and controlling the onboard Chimera, a genetically modifiable creature that can be adapted to the needs of the mission.

### ***Embedded Concepts:***

Genetics, mutation, tradeoff of scarce resources, zoology, addition and subtraction

### ***Selection Suggestions:***

The Biologist should have a relatively strong number sense. Students with a love for plants or animals tend to make good Biologists.





## Physicist

The Physicist is responsible for operating the ship's Versabeam, an energy beam with several different abilities. The physicist is also in charge of strategically allocating the ship's power supply.

### ***Embedded Concepts:***

Planning, tradeoff of scarce resources, effects of radiation, multitasking

### ***Selection Suggestions:***

The Physicist should be a student with quick reaction skills and a strong understanding of cause-and-effect relationships. Students who are interested in science tend to make good Physicists.

## Engineer (2x)

The Engineers are responsible for making sure that all ship systems function properly. This involves repairing damaged systems and creating ammunition for the ship's weapons and Versabeam.

### ***Embedded Concepts:***

Following instructions, pattern recognition, additive color mixing, planning, multitasking

### ***Selection Suggestions:***

The Engineers should be strong readers who are good at following directions. Students with good attention to detail and interest in mechanical processes tend to make good Engineers.

## Hacker

The Hacker is responsible for hacking into enemy computers. The Hacker is also in charge of strategically allocating the ship's computer capacity.

### ***Embedded Concepts:***

Technology literacy, computer engineering, artificial intelligence, tradeoff of scarce resources

### ***Selection Suggestions:***

The Hacker should be a student who is patient and pays close attention to detail. Students interested with computers and gaming tend to make good Hackers.



## Gunner

The Gunner is responsible for using the ship's weapon systems to protect the crew from threats. The Gunner is also in charge of transforming the ship into different forms, depending on the needs of the mission.

### **Embedded Concepts:**

Planning, tradeoff of scarce resources, timing, cause and effect

### **Selection Suggestions:**

The Gunner should be a student with quick reaction skills and a strong understanding of cause-and-effect relationships. Level-headed students tend to make good Gunners. Hyperactive or aggressive students are **discouraged** from being the Gunner.

## Security Chief

The Security Chief is responsible for ship wide safety and security. This involves controlling the ship's shield, stealth, and cybersecurity systems.

### **Embedded Concepts:**

Planning, strategic thinking, tradeoff of scarce resources, IT security, leadership

### **Selection Suggestions:**

The Security Chief should be a student who is a good team player with leadership skills. Students who are self-starters and pay close attention to detail tend to make good Security Chiefs.

## Security Guard (2x)

The Security Guards are responsible for maintaining order and safety within the ship. They defend the ship from invaders, investigate shipboard disturbances, and respond to security alerts.

### **Embedded Concepts:**

Investigative inquiry, reporting, law enforcement, teamwork, forensics

### **Selection Suggestions:**

The Security Guards should be students who are good at following directions and have strong writing skills. Outgoing students tend to make good Security Guards.



## Doctor

The Doctor is responsible for the well-being of the crew. This involves everything from maintaining crew morale to performing emergency medical operations.

### ***Embedded Concepts:***

Human anatomy, medicine, toxins, healthcare, blood cells

### ***Selection Suggestions:***

The Doctor should be a student who is comfortable multitasking and pays close attention to detail. Students with interest in biology tend to make good Doctors.

## Communications

The Communications Officer is responsible for incoming and outgoing communications, both written and verbal. This also includes decrypting encoded messages.

### ***Embedded Concepts:***

Written communication, waveform amplitude and frequency, encryption

### ***Selection Suggestions:***

The Communications officer should be a student with excellent reading and writing skills. Students with good spatial perception and a passion for reading tend to make good Communications officers.

## Deck Chief

The Deck Chief is also responsible for monitoring internal and external sensors and performing detailed scans of the objects the ship encounters.

### ***Embedded Concepts:***

Forensics, 2D representations of 3D space, pressure, atmospheric conditions

### ***Selection Suggestions:***

The Deck Chief should be a student who is comfortable multitasking and pays close attention to detail. Students with strong reading and writing skills tend to make good Deck Chiefs.



# Mission Materials

*Details about your specific mission*

# COUNTDOWN

*The Race to Save the World*



WORLD GEOGRAPHY – CONTINENTS AND THEIR DISTINGUISHING FEATURES –  
PHYSICAL MAPS – CULTURES AND LANGUAGES – INTERPRETATION OF TEXTS –  
PHASES OF THE MOON – EARTH'S ROTATION – ELAPSED TIME





# COUNTDOWN

## Mission Overview

Earth is in danger! A race of sentient robots known as the Alloys move from planet to planet consuming metallic minerals from planetary crusts, mantles, and cores. After they deplete all the useful resources on one world they move on to the next. This devastates the worlds they invade, but to make matters worse the Alloys have constructed a terrible weapon called the “Sunlight Inhibitor Device.”

The Sunlight Inhibitor Device generates massive clouds of particles that float into the atmosphere and block out all sunlight. The particles remain in the atmosphere for months, during which time all the plant and animal life on the planet below withers and dies. Once the planet has been purged of living things, the Alloys move in and begin extracting the metallic minerals from the planet.

An Alloy scout has recently arrived on Earth and deployed the Sunlight Inhibitor Device in an unknown location, and a full invasion fleet is close behind. The Alloys have given mankind 24 hours to surrender before they activate the device and destroy all life on earth. The world’s leaders have called upon the Infinity Knights—the renowned protectors of peace and justice throughout the universe—to locate the Sunlight Inhibitor Device and disarm it before it’s too late! The countdown for Earth has begun!

## Standards-Based Curriculum

World Geography

Physical Maps

Cultures & Languages

Interpretation of Texts

Phases of the Moon

Earth’s Rotation

Continents & their distinguishing features

Elapsed Time

## Higher Order Thinking

How do authors’ tones, perspectives, and biases affect their writings?

What are the costs of industrialization?

What does artificial intelligence teach us about life?

What is the connection between plants, animals, their environments, and the sun?

How does one determine the survival of two species vying for the same scarce resources?





DREAM FLIGHT  
ADVENTURES

*Inspiring the world to think and dream*

# COUNTDOWN

## Mission Introduction

Earth is in danger! A race of sentient robots known as the Alloys move from planet to planet consuming metallic minerals from planetary crusts, mantles, and cores. After they deplete all the useful resources on one world they move on to the next. This devastates the worlds they invade, but the Alloys have no remorse. In fact, they have no emotion of any kind. They are driven purely by cold-hearted self interest. They have no respect for living things and typically destroy all life on the planets they invade.

The Alloys have constructed a terrible weapon called the “Sunlight Inhibitor Device.” It generates massive clouds of particles that float into the atmosphere and block out all sunlight. The particles remain in the atmosphere for months, during which time all the plant and animal life on the planet below withers and dies. Once the planet has been purged of living things, the Alloys move in and begin extracting the metallic minerals from the planet.

The Alloys have done this for centuries, but now they are headed for Earth! An Alloy scout has recently arrived on Earth and deployed the Sunlight Inhibitor Device in an unknown location, and the full invasion fleet is close behind. The Alloy scout was detected entering Earth’s atmosphere by a scientist at the Dominion Observatory in Canada. The world’s leaders have called upon the Infinity Knights—the renowned protectors of peace and justice throughout the universe—to follow the clues around the world and locate the Sunlight Inhibitor Device.

But it’s not that simple—time is not on our side. The Alloys have given mankind 24 hours to surrender before they activate the device and destroy all life on earth. The Infinity Knights must locate and disarm the device before it’s too late. The countdown for Earth has begun!



# Lesson Plans & Curriculum-based Activities

*Helpful tools to extend the magic before and after the mission*



Name \_\_\_\_\_

## Infinity Knights Job Application

In the near future you will embark on an exciting Dream Flight Adventures mission. You and your peers will become members of the *Infinity Knights*, the protectors of peace and justice throughout the universe. Together, you will operate a fantastic ship to accomplish a challenging mission. It will not be easy, and you will need to work as a team to be successful.

It is a great honor to serve with the *Infinity Knights*, and every station on your ship is important. Review the ship's stations at [www.DreamFlightAdventures.com/simulators/](http://www.DreamFlightAdventures.com/simulators/). Pay attention to how your crew must work together and think about the stations that interest you most.

Identify the three stations where you'd most like to serve. Write a persuasive essay describing why you'd be a good choice for these positions. Describe why you are interested in the roles and how you think you would do a good job. Share how these positions relate to past experiences you've had or goals you have for the future. Use the space below or separate sheets of paper to write your persuasive essay.

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Name \_\_\_\_\_

# Pre-Mission Diary

Read the *Mission Introduction* for your upcoming Dream Flight Adventures mission. Write a journal entry describing how you feel about the mission. What do you think it will be like? What will you do? What challenges will you face, and how do you plan on handling them? Use the space below or a separate sheet of paper if you need more room.

[illegible]



## Physical Features of the World

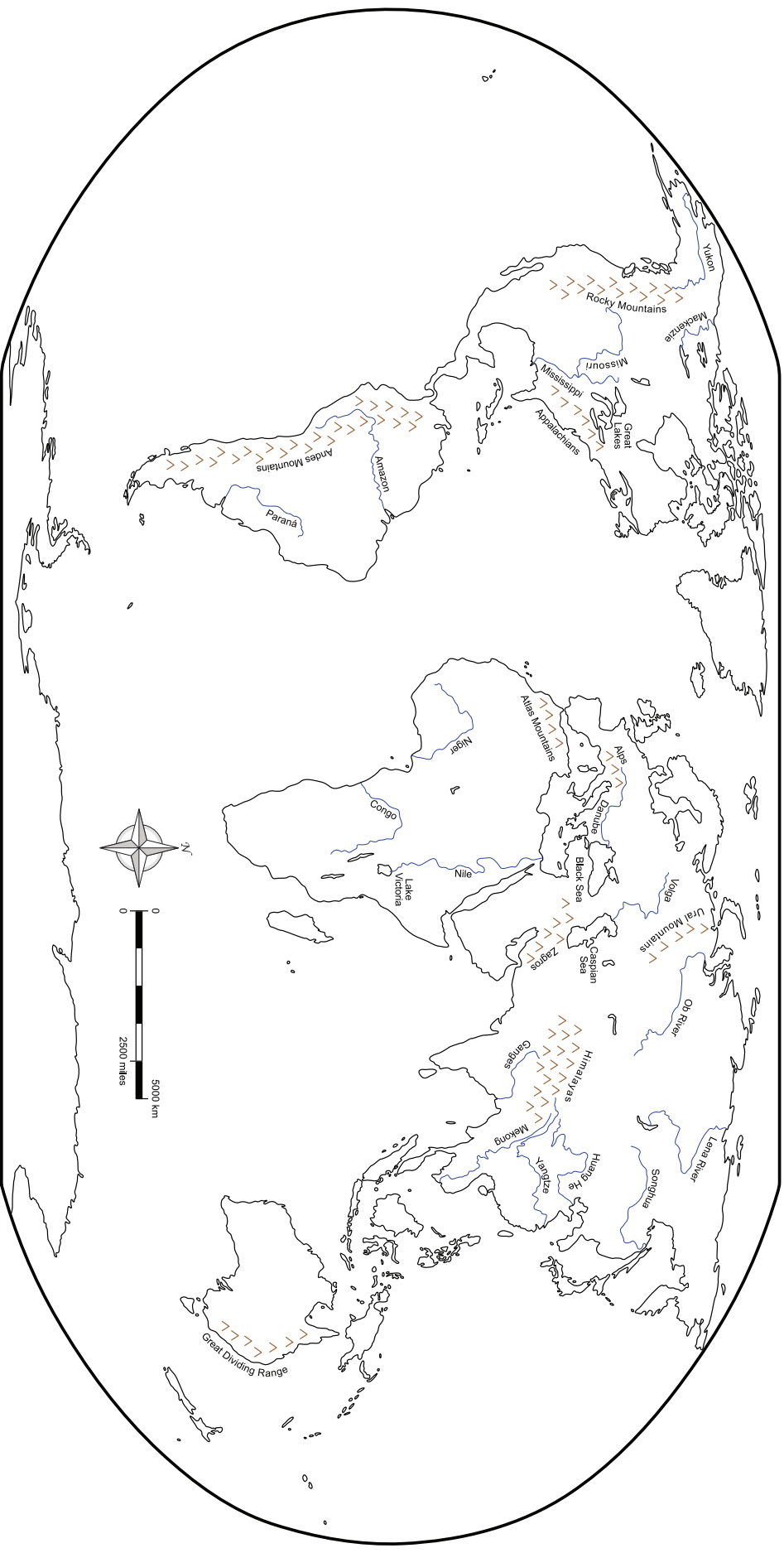
During the *Countdown* simulation, students will learn about prominent physical features of the world's continents. To build upon this learning, considering using the following pair of map worksheets, provided by our partners at [www.worksheetworks.com](http://www.worksheetworks.com).

# World - Robinson Projection

Physical Geography

Name: \_\_\_\_\_

Date: \_\_\_\_\_



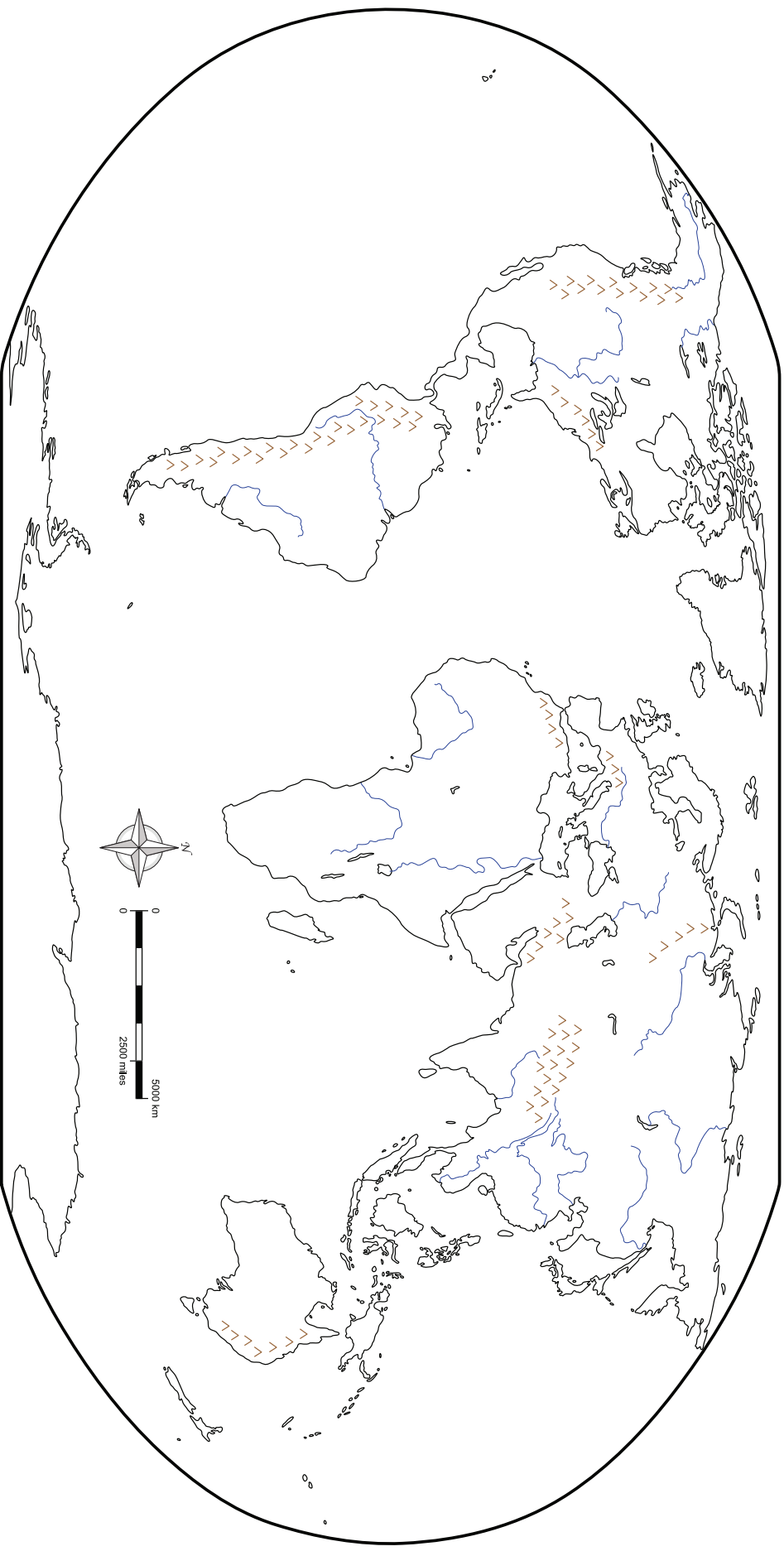


# World - Robinson Projection

Physical Geography

Name: \_\_\_\_\_

Date: \_\_\_\_\_





## Author's Point of View

During the *Countdown* simulation, students will interpret texts written by a variety of different authors. To build upon this learning, considering using the following narrative point of view worksheet, provided by our partners at [www.ereadingworksheets.com](http://www.ereadingworksheets.com).

Name: \_\_\_\_\_

## Identifying Narrative Perspective in the Works of Roald Dahl

**Directions:** Loved children's author Roald Dahl writes texts from a variety of perspectives. Read the following passages, determine the narrator's perspective, and explain your answer.

**Narrative Perspective (point of view):** first-person, second-person, or third-person

### 1. James and the Giant Peach by Roald Dahl

Until he was four years old, James Henry Trotter had had a happy life. He lived peacefully with his mother and father in a beautiful house beside the sea. There were always plenty of other children for him to play with, and there was a sandy beach for him to run about on.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

### 2. The Witches by Roald Dahl

I looked round and I saw a hideous painted and powdered witch's face staring down at me, and the face opened its mouth and yelled triumphantly, "It's here! It's behind the screen! Come and get it!" The witch reached out a gloved hand and grabbed me by the hair but I twisted free and jumped away.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

### 3. Charlie and the Great Glass Elevator by Roald Dahl

When Mr. Wonka had finished reading the recipe, he carefully folded the paper and put it back into his pocket. "A very, very complicated mixture," he said. "So can you wonder it took me so long to get it just right?" He held the bottle up high and gave it a little shake and the pills rattled loudly inside it, like glass beads.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

### 4. Television by Roald Dahl

Go throw your TV set away, / And in its place you can install / A lovely bookshelf on the wall. Then fill the shelves with lots of books, / Ignoring all the dirty looks, The screams and yells, the bites and kicks, / And children hitting you with sticks-

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

5. Esio Trot by Roald Dahl

Some years ago, when my own children were small, we usually kept a tortoise or two in the garden. In those days, a pet tortoise was a common sight crawling about on the family lawn or in the backyard.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

6. George's Marvelous Medicine by Roald Dahl

George turned off the heat under the stewing pot. He must leave plenty of time for it to cool down. When all the steam and froth had gone away, he peered into the giant pot to see what color the great medicine now was. It was a deep and brilliant blue.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

7. The Twits by Roald Dahl

As soon as Mrs. Twit sat down, Mr. Twit pointed at her and shouted, "There you are! You're sitting in your old chair and you've shrunk so much your feet aren't even touching the ground!" Mrs. Twit looked down at her feet and by golly the man was right. Her feet were not touching the ground.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

8. The Magic Finger by Roald Dahl

The farm next to ours is owned by Mr. and Mrs. Gregg. The Greggs have two children, both of them boys. Their names are Philip and William. Sometimes I go over to their farm to play with them. I am a girl and I am eight years old. Philip is also eight years old. Last week something very funny happened. I am going to tell you about it as best as I can.

Narrator's Perspective: \_\_\_\_\_

Explain how you know:

9. *Attention Please! Attention Please!* by Roald Dahl

Attention please! Attention please! / Don't dare to talk! Don't dare to sneeze!  
Don't doze or daydream! Stay awake! / Your health your very life's at stake!

Narrator's Perspective: \_\_\_\_\_

Explain how you know:



## Mission Debrief Class Discussion Guide

Your students will encounter a wide variety of educational topics in their Dream Flight Adventures mission. After the mission is complete, use this guide to lead your students in a class discussion to explore these topics in more depth.

Consider dividing your students into small groups to discuss each question and then share their group's opinion with the entire class. Be sure to let every student's voice be heard. Dream Flight Adventure missions are multi-faceted, and each student is exposed to a slightly different part of the story. Let every student share their thoughts and experiences so the entire group can benefit.

Suggested thought-provoking questions for *Countdown* are:

How do authors' tones, perspectives, and biases affect their writings?

What are the costs of industrialization?

What does artificial intelligence teach us about life?

What is the connection between plants, animals, their environments, and the sun?

How does one determine the survival of two species vying for the same scarce resources?

After learning about and visiting the various continents, where would you most like to live, and why?

If you could do the mission again, what would you do differently?

How do you relate to the characters, events, or issues that you encountered during the mission?

What parts of the mission were the most challenging?

What new things did you learn during the experience?



Name \_\_\_\_\_

## Multimedia Mission Memoir

Reflect on your recent Dream Flight Adventures mission and prepare a multimedia project that tells about your experience.

Be creative and draw upon any type of multimedia to create your project. Possible examples include posters, collages, short stories, PowerPoint presentations, dioramas, plays, podcasts, animations, videos, music, or comic books.

In your project, be sure to address the following questions:

What happened during your mission? Summarize the events.

What was your responsibility?

What did you do in your mission? What were the results?

If you could do the mission over again, what would you do differently?

How do you relate to the characters, events, or issues that you encountered during the mission?

What parts of the mission were the most challenging?

What parts of the mission were the most exciting?

What new things did you learn during the experience?

Did the mission change the way you think about anything? If so, what, and how has your perspective changed?

Be prepared to share your project with your peers and to describe why you chose the form of multimedia you did.





# Enrichment Materials

*Resources for deeper inquiry and advanced students*



The following third-party resources are recommended as enrichment materials for gifted or advanced students.

## World Geography

### Videos

World Geography: Physical Geography

<http://www.youtube.com/watch?v=qWkQnXOSMq0>

North American Physical Geography Par 1 and Part 2:

Part 1: <http://www.youtube.com/watch?v=YefdnEAMaZc>

Part 2: <http://www.youtube.com/watch?v=WA8CglppUIE>

The Geography of Australia

<http://www.youtube.com/watch?v=eVStrCuv38A>

The Bedrock Beneath: NASA Ice Bridge Map of Antarctica

<http://www.youtube.com/watch?v=SQDAuEOj0b0>

Europe Physical Geography Par 1 and Part 2

Part 1: <http://www.youtube.com/watch?v=7adv4hf7IeA>

Part2: <http://www.youtube.com/watch?v=HUQD0SUIvYQ>

Latin America Physical Geography

<http://www.youtube.com/watch?v=XUHkSTThfQo>

Geography of Latin America Overview

<http://www.youtube.com/watch?v=doqlR4eqNtM>

World Geography- The Geography of Asia and the Pacific

<http://www.youtube.com/watch?v=x-LFOkGfyZM>

Geography of Africa

<http://www.youtube.com/watch?v=BPjQGYaBDtg>



Africa Physical Geography

<http://www.youtube.com/watch?v=YfaiHJ5JsRI>

## Websites

Geography Education: Physical Geography. This is fantastic resource for the basics as well as interesting facts. It includes many of visuals, including videos.

<http://geographyeducation.org/thematic/09-physical-geography/>

Fact Monster: Compilation of multiple sites on the topic of World Geography.

<http://www.factmonster.com/ipka/A0770414.html>

National Geographic: Geography

[http://education.nationalgeographic.com/education/encyclopedia/geography/?ar\\_a=1](http://education.nationalgeographic.com/education/encyclopedia/geography/?ar_a=1)

Sheppard Software: Geography Games for learning and assessing.

<http://www.sheppardsoftware.com/Geography.htm>

Digital Dialects: Physical Geography Game: Mountains, Rivers and Deserts

[http://www.digitaldialects.com/geography/physical\\_geography.htm](http://www.digitaldialects.com/geography/physical_geography.htm)

## Additional Instructor Resources

Discovery Education: U.S. Geography:

West: [www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-west.cfm](http://www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-west.cfm)

Northeast: [www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-northeast.cfm](http://www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-northeast.cfm)

Midwest: [www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-midwest.cfm](http://www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-midwest.cfm)

South: <http://www.discoveryeducation.com/teachers/free-lesson-plans/us-geography-the-south.cfm>



Discovery Education: Geography of South America

<http://www.discoveryeducation.com/teachers/free-lesson-plans/geography-of-south-america.cfm>

The New York Times: All Over the Map: 10 Ways to Teach about Geography

[http://learning.blogs.nytimes.com/2012/12/04/all-over-the-map-10-ways-to-teach-about-geography/?\\_php=true&\\_type=blogs&\\_r=0](http://learning.blogs.nytimes.com/2012/12/04/all-over-the-map-10-ways-to-teach-about-geography/?_php=true&_type=blogs&_r=0)

Mr. Donn: Geography Lessons

<http://www.mrdonn.org/ourlessons-geography.html>

Eds Resources: World Geography Lesson Plans and Resources. A compilation of different sites that have lesson plans for World Geography.

<http://www.eds-resources.com/edgeography.htm>

## Projects

Discovery Education: Exploring the World's Geography: Make your own physical features globe.

<http://www.discoveryeducation.com/teachers/free-lesson-plans/exploring-the-worlds-geography.cfm>

## Physical Maps

### Videos

Geography Tutor: Map Skills

<http://www.youtube.com/watch?v=68Njs99jTBk>



## Websites

About.com: World Atlas: Maps and Geography of the World.

<http://geography.about.com/library/maps/blindex.htm>

National Geographic: Maps

<http://maps.nationalgeographic.com/maps>

Geology.com: World Political/Physical Maps and Satellite Images

<http://geology.com/world/>

## Additional Instructor Resources

National Geographic: Where in the World?

[http://education.nationalgeographic.com/archive/xpeditions/lessons/01/g35/gpafrica2.html?ar\\_a=1](http://education.nationalgeographic.com/archive/xpeditions/lessons/01/g35/gpafrica2.html?ar_a=1)

National Geographic: More Physical Geography and Borders

[http://education.nationalgeographic.com/education/lesson/more-physical-geography-and-borders/?ar\\_a=1](http://education.nationalgeographic.com/education/lesson/more-physical-geography-and-borders/?ar_a=1)

Jefferson County Schools: Social Studies Online: Geography

<http://classroom.jc-schools.net/SS-units/geog.htm>

## Projects

University of South Florida: More Physical Mapping Activity and Poster Project

[http://education.nationalgeographic.com/education/lesson/more-physical-geography-and-borders/?ar\\_a=1](http://education.nationalgeographic.com/education/lesson/more-physical-geography-and-borders/?ar_a=1)



## Interpretation of Texts

### Videos

eHow: How Do I Teach My Students About Styles of Writing?

[http://www.ehow.com/video\\_4983874\\_i-teach-students-styles-writing.html](http://www.ehow.com/video_4983874_i-teach-students-styles-writing.html)

### Websites

PBS: The American Novel: Mark Twain

<http://www.pbs.org/wnet/americannovel/timeline/twain.html>

The European Graduate School: Jorge Luis Borges Biography

<http://www.egs.edu/library/jorge-luis-borges/biography/>

Tara-Tolstoy: All About Leo Tolstoy and His Writing Style

Biography: <http://tara-tolstoy.tripod.com/id14.html>

Writing Style: <http://tara-tolstoy.tripod.com/id11.html>

University of North Carolina: Chinua Achebe's Biography and Style

<http://www.unc.edu/~hhalpin/ThingsFallApart/achebebio.html>

Wikipedia: Andrew Barton "Banjo" Paterson

[http://en.wikipedia.org/wiki/Banjo\\_Paterson](http://en.wikipedia.org/wiki/Banjo_Paterson)

National Center for Biotechnology Information: Roald Amundsen - a study of personality

<http://www.ncbi.nlm.nih.gov/pubmed/9019883>

PBS: Alone on the Ice: Roald Amundsen

<http://www.pbs.org/wgbh/amex/ice/peopleevents/pandeAMEX87.html>





## **Additional Instructor Resources**

Learn NC: Lesson Plans for Teaching Style

<http://www.learnnc.org/lp/pages/2744?ref=search>

Bright Hub Education: Lesson Plan: Analyzing and Author's Style in Literature

<http://www.brighthouseeducation.com/middle-school-english-lessons/26713-analyzing-author-style-in-literature/>

Read Write Think . org: Style: Defining and Exploring an Author's Stylistic Choices

<http://www.readwritethink.org/classroom-resources/lesson-plans/style-defining-exploring-author-209.html>

## **Phases of the Moon**

### **Videos**

NOAO (National Optical Astronomy Observatory): Phases of the Moon

[http://www.noao.edu/education/phases/phases\\_demo.html](http://www.noao.edu/education/phases/phases_demo.html)

e-Learning for Kids: Lunar Cycle

<http://www.e-learningforkids.org/science/lesson/lunar-cycle/>

Bill Nye the Science Guys: Moon Phases

<http://www.youtube.com/watch?v=LaqrQyTm9B4>

### **Websites**

NASA: What are the phases of the Moon?

<http://starchild.gsfc.nasa.gov/docs/StarChild/questions/question3.html>

Moon Connection: Understanding the Moon Phases

[http://www.moonconnection.com/moon\\_phases.phtml](http://www.moonconnection.com/moon_phases.phtml)



Star Date: Moon Phases Calendar

<http://stardate.org/nightsky/moon>

Universe Today: What are the Phases of the Moon?

<http://www.universetoday.com/20289/phases-of-the-moon/>

Science Net Links: Lunar Cycles Challenge Game

[http://sciencenetlinks.com/interactives/moon/moon\\_challenge/moon\\_challenge.html](http://sciencenetlinks.com/interactives/moon/moon_challenge/moon_challenge.html)

### **Additional Instructor Resources**

Planetarium Web: Observing the Moon

[https://planetariumweb.madison.k12.wi.us/files/planetarium/observing\\_the\\_moon.pdf](https://planetariumweb.madison.k12.wi.us/files/planetarium/observing_the_moon.pdf)

Teacher Vision: The Moon's Phases Lesson Plan

[https://www.teachervision.com/tv/printables/TCR/1557345872\\_39-40.pdf](https://www.teachervision.com/tv/printables/TCR/1557345872_39-40.pdf)

BrainPOP Education: Moon Phases Lesson Ideas

<http://www.brainpop.com/science/space/moonphases/preview.weml>

### **Projects**

The Franklin Institute: The Moon Box

<http://www.fi.edu/pieces/schutte/MoonBox.html>

## **Earth's Rotation**

### **Videos**

Mr. Derek Owens Physical Science Class: Rotation and Revolution of the Earth

<http://www.youtube.com/watch?v=op6vsLNf3WY>



Mr. Derek Owens Physical Science Class: The Earth, Moon and Sun System

<http://www.youtube.com/watch?v=FjCKwkJfg6Y>

## Websites

Kids Geo: The Revolution of the Earth Around Our Sun

<http://www.kidsgeo.com/geography-for-kids/0019-the-revolution-of-the-earth.php>

Scholastic: Study Jams: Day on Earth

<http://studyjams.scholastic.com/studyjams/jams/science/solar-system/day-on-earth.htm>

Utah Science: Rotate v.s. Revolution

<http://utahscience.oremjr.alpine.k12.ut.us/sciber06/6th/moon/html/rotate.htm>

Class Zone: Model of Earth's Yearly Revolution around the Sun

[http://www.classzone.com/books/earth\\_science/terc/content/visualizations/es0408/es0408page01.cfm?chapter\\_no=visualization](http://www.classzone.com/books/earth_science/terc/content/visualizations/es0408/es0408page01.cfm?chapter_no=visualization)

## Additional Instructor Resources

CPalms: How do Earth's Rotation and Revolution Work?

<http://www.cpalms.org/Public/PreviewResource/Preview/46329>

Ohio.gov: Lesson Plan: Earth's Revolution and Rotation

<http://dnet01.ode.state.oh.us/ims.itemdetails/lessondetail.aspx?id=0907f84c805324a5>

NASA: Sun Earth Day Lesson Plans

<http://sunearthday.nasa.gov/2006/educators/index.php>

King George County Schools: As the World Turns, Rotates, and Revolves Lesson Plan

[http://www.kgcs.k12.va.us/instruction/SS%20Science%203\\_PDFs/As%20the%20World%20Turns,%20Rotates,%20and%20Revolves.pdf](http://www.kgcs.k12.va.us/instruction/SS%20Science%203_PDFs/As%20the%20World%20Turns,%20Rotates,%20and%20Revolves.pdf)



## Elapsed Time

### Websites

BrainPop: Elapsed Time

<http://www.brainpop.com/math/dataanalysis/elapsedtime/preview.weml>

Study Zone: Elapsed Time Test Practice

<http://www.studyzone.org/testprep/math4/d/elapsedtime4p.cfm>

Shodor: Elapsed Time Interactive Activity

<http://www.shodor.org/interactivate/activities/ElapsedTime/>

Sheppard Software: Math Man: Calculate Elapsed Time Game

[http://www.sheppardsoftware.com/mathgames/time/mathman\\_time\\_elapsed.htm](http://www.sheppardsoftware.com/mathgames/time/mathman_time_elapsed.htm)

Super Teacher Worksheets: Elapsed Time

<https://www.superteacherworksheets.com/elapsed-time.html>

### Additional Instructor Resources

Scholastic: Teaching Elapsed Time

<https://www.scholastic.com/teachers/top-teaching/2013/01/teaching-elapsed-time-strategies-work>

NSA.gov: Elapsed Time in the Real World

[http://www.nsa.gov/academia/files/collected\\_learning/elementary/geometry/elapsed\\_time.pdf](http://www.nsa.gov/academia/files/collected_learning/elementary/geometry/elapsed_time.pdf)

Johnny's Key: Elapsed Time Lesson Plan

<http://www.johnnyskey.com/lesson-plan.asp>

Franklin Institute: Telling Time: Elapsed Time

<http://www.fi.edu/time/Journey/JustInTime/lesson5.html>