

NAME: \_\_\_\_\_



# Activity One



## The Next Step into the Universe

### Writing a Short Essay

Based on what you have learned from the reading passages, you will write a persuasive essay that will offer your opinion as to where the scientific community should look next in the universe. Should resources be spent to investigate and explore other galaxies, black holes, nebulae or quasars?

#### STEP ONE

Decide where you think scientists should go next in the universe, and list three reasons why. Then, think about how you will start your essay. How will you convince readers to want to read more?

#### STEP TWO

Write the rough draft of your essay. Re-read it to yourself at least twice to find any errors you might have made, and to make sure you said all of the things you wanted to. Check your work to make sure there is good flow between ideas. Did you use linking words? Did you save your best reason for last? Don't forget the concluding paragraph.

#### STEP THREE

Write your good draft. Give your essay a strong title.



# Activity Two



## Count the Stars

### Creating a Star-Counter

You will be creating a tool that you can use to count the stars you can see in the sky on a clear night.

- YOU WILL NEED:**
- An 8-inch square of construction paper
  - A piece of string (about 16 inches long)
  - Tape
  - Pencil
  - Scrap paper for calculations

### STEP ONE

Cut out the middle of the square, leaving a one-inch border all the way around.

### STEP TWO

Tape a piece of string from one corner of the paper to the end of your shoulder.

### STEP THREE

Look at the stars through your frame. It divides the sky into forty sections. Hold the frame steady and count the stars you see in the frame. Repeat this five times in different parts of the sky.

### STEP FOUR

Write the number of stars you saw. Divide it by five, and then multiply by forty. This will give you an idea of approximately how many stars you can see in the night sky.

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# Activity Three



## Black Hole Next Door?

### Writing a News Report

You will write either a news article or a news broadcast that informs the public of the discovery of a black hole that is hovering at the edge of our solar system. Your report should include what risk this poses to humans on Earth and to space travelers. As always, a good news piece will include interviews with witnesses and/or experts.

#### STEP ONE

Review your reading passages about Black Holes. Think about the possible difficulties that a nearby black hole might pose to Earthlings. Use the 5 W's: Who? What? Where? When? and Why?

#### STEP TWO

Create a character to interview for the background science knowledge or an eye-witness account. What information will they contribute? What other details will you include?

#### STEP THREE

Write your article. Then, think of a good news heading that will get readers attention, and may get your piece selected as the headline news.

#### STEP FOUR

If you are creating a news broadcast, see if you can film your piece for presentation. If you are writing an article, look into publishing it using software.

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# Activity Four



## Black Hole Breakdown

### Design a Board Game

Based on your readings of black holes, you will design a board game where the players need to navigate through the universe on a mission to reach a destination of your choice, while avoiding the perilous pitfalls of black holes and other dangers.

#### STEP ONE

Some things to consider:

- What will the objective of your game be?
- What dangers will the players face along the way?
- How will the players move - Dice? Spinner? Cards?
- For which age group are you designing the game?
- Will the level of difficulty be appropriate for the age group for whom you are designing the game?
- Will there be trivia involved? How?
- What twists can you work in to keep the game interesting?
- What will the board game look like?
- What will you use to represent the players?
- How many players?
- What materials will you need to make your game?

#### STEP TWO

Create your game.

#### STEP THREE

Find some people to play your game.

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# Activity Five



## Lost in Space!

### Writing a Play

Based on what you have learned from the reading passages, you will write a play whose central character(s) become lost in space. You will use as much terminology from this book as you can to make your play sound more authentic.

#### STEP ONE

Write an outline of your play that tells who gets lost and how, and how they find their way home again... or do they?

#### STEP TWO

Write the play. Be sure to include as much action as you can. Fast dialog between characters can speed up the pace for action scenes. Remember, a narrator can be included to introduce new characters, give the details of the setting and scene changes.

#### STEP THREE

Talk to your teacher about how you might be able to present your play.

#### STEP FOUR

Cast your play. If you plan to put this on in front of the class, choose classmates who you think would suit the roles you have written. Or, you could cast Hollywood stars in the roles of the planets.

#### STEP FIVE

It's show time!

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# Activity Six



## Soar Like A Star!

### Make a Travel Pamphlet

Based on what you have learned from the reading passages, you will make a travel pamphlet to advertise a trip to the star called Alpha Centauri.

#### **Questions to Consider in Planning your Pamphlet:**

- 1) What is it?
- 2) Where is it?
- 3) How far away is it?
- 4) How will you get there? Research a shuttle.
- 5) Can you calculate the travel time?
- 6) What would it look like?
- 7) Why might people want to visit this star? (Perhaps you could be creative here, and create a special reason why people would want to go to this star.)
- 8) What is your tour company called?
- 9) How much will the trip cost?

Remember, when people pick up and read your pamphlet, they should be convinced to take your trip. Whether you create the folded pamphlet by hand, or using software, it should be creative and attractive.