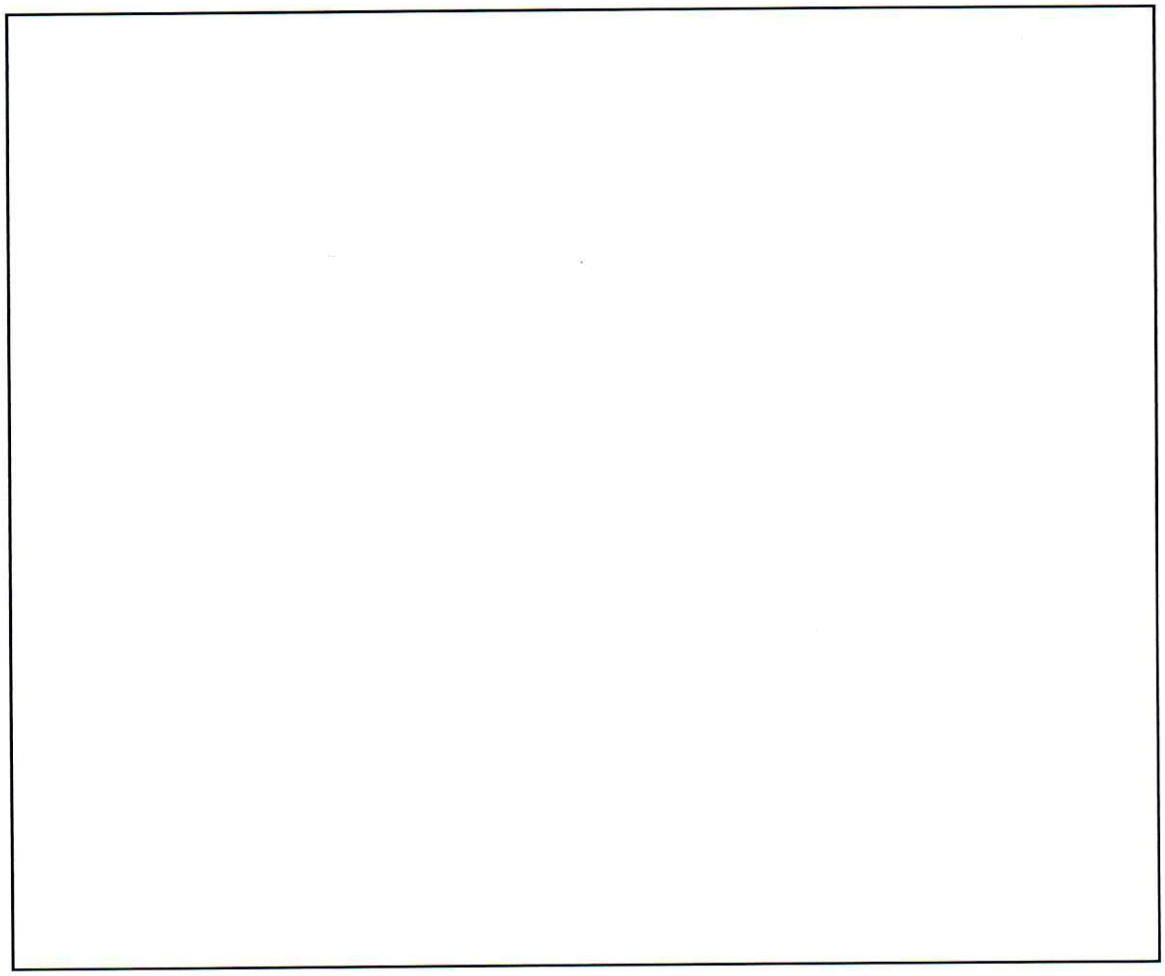
My Science Portfolio



Name .....

School Year .....

Name

STUDENT HANDOUT 2

Table of Contents

Name _____

STUDENT HANDOUT 3

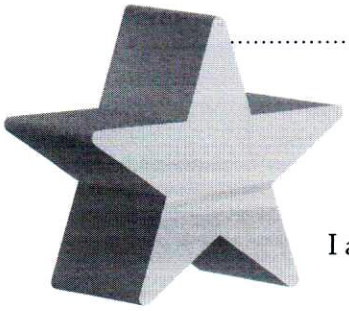
Getting to Know Me

Directions: Put a check mark on the lines that contain topics in which you are interested in learning more about. Then, circle your top three interests.

_____ Electricity
_____ Sound
_____ Light
_____ Rocks
_____ Weather and Clouds
_____ The Future
_____ Chemistry
_____ Computers
_____ Robots
_____ Motion and Force
_____ Technology
_____ The Human Body
_____ Health
_____ Mammals
_____ Insects
_____ Reptiles
_____ Birds
_____ Fish and Sea Creatures
_____ Microscopes
_____ Plants, Gardening
_____ Fungi (Mushrooms)
_____ Water (Oceans, Rivers, Ponds)
_____ Recycling
_____ Food
_____ The Earth
_____ Space
_____ Wind and Air
_____ Transportation
_____ Building Things
_____ Magnets
_____ Global Warming
_____ Ecosystems
_____ Fuel
_____ Other:_____

Name

STUDENT HANDOUT 4



Science Topics Are Real (STAR) Day Planning Sheet

I am in a group with the following people:

It's fun to be the teacher! You get to select a science topic and help the class to learn about it. In this activity, you will plan a STAR Day that will help you and your class discover more about your topic.

Directions: Complete the following items below.

1. With your group, write down three of your interests in science:
   a.
   b.
   c.

2. Talk about these interests with your group and your teacher. Pick **one** interest that you would like present on a STAR Day. Write it here:

3. Now that you know your STAR topic, think of a name for your group (it should be something about your topic), and write it here:

   _____

4. Now think of ways that you could help your class to learn more about your STAR topic. Discuss the ideas below with your group and write down your thoughts about what you could do.
   a. Special speaker:

   b. Activity:

   c. Game:

   d. Demonstration:

d. Demonstration

- What is the name of your demonstration?

- What will you need to do the demonstration?

- Who will bring which materials?

- How will you do the demonstration?

- How will the demonstration help the class to learn about your topic?

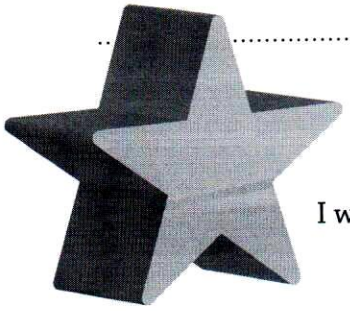
Turn this sheet in to your teacher. Don't forget to put your name and the names of all group members at the top.

Approved by: _____ Date of Group's STAR Day: _____

Name .....

Name of My STAR Group .....

STUDENT HANDOUT 5



Tell Me More!

I would like to learn more about the following science topic:

Why I want to learn more about this topic:

I think it would be fun to do the following things to learn more about this topic:

Note. Adapted from Renzulli and Reis (1997).

Name

STUDENT HANDOUT 6

Sign Me Up!

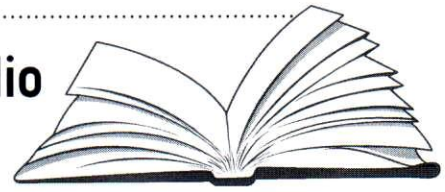
Directions: Write down STAR topics that interested you. After you have listed all topics, rate the three topics that interest you the most. Rate your most interesting topic 1, your next most interesting 2, and your third most interesting 3. Circle the topic that you would like to choose for your GEM project.

Topic	**Rating (1, 2, 3)**

Name .....

STUDENT HANDOUT 7

Introduction to My Portfolio



Directions: Complete the items below.

1. What is the GEM topic you'll be working on?

2. Why are you interested in this topic?

3. Can you think of some **issues or problems** that are related to your GEM topic? It may help to think of how the issue is connected to your community. List some ideas for problems related to your GEM topic below.
   a.

   b.

   c.

   d.

   e.

   f.

   g.

   h.

   i.

4. Discuss these ideas with your teacher. With your group, select **one** that your group wishes to explore.

5. Write your GEM-related issue below as a research question. For example, if one of your GEM-related issues is health of animals, you may wish to understand whether dogs in your community are healthy. You could write the question as, "Are dogs in our town healthy? Why or why not?"

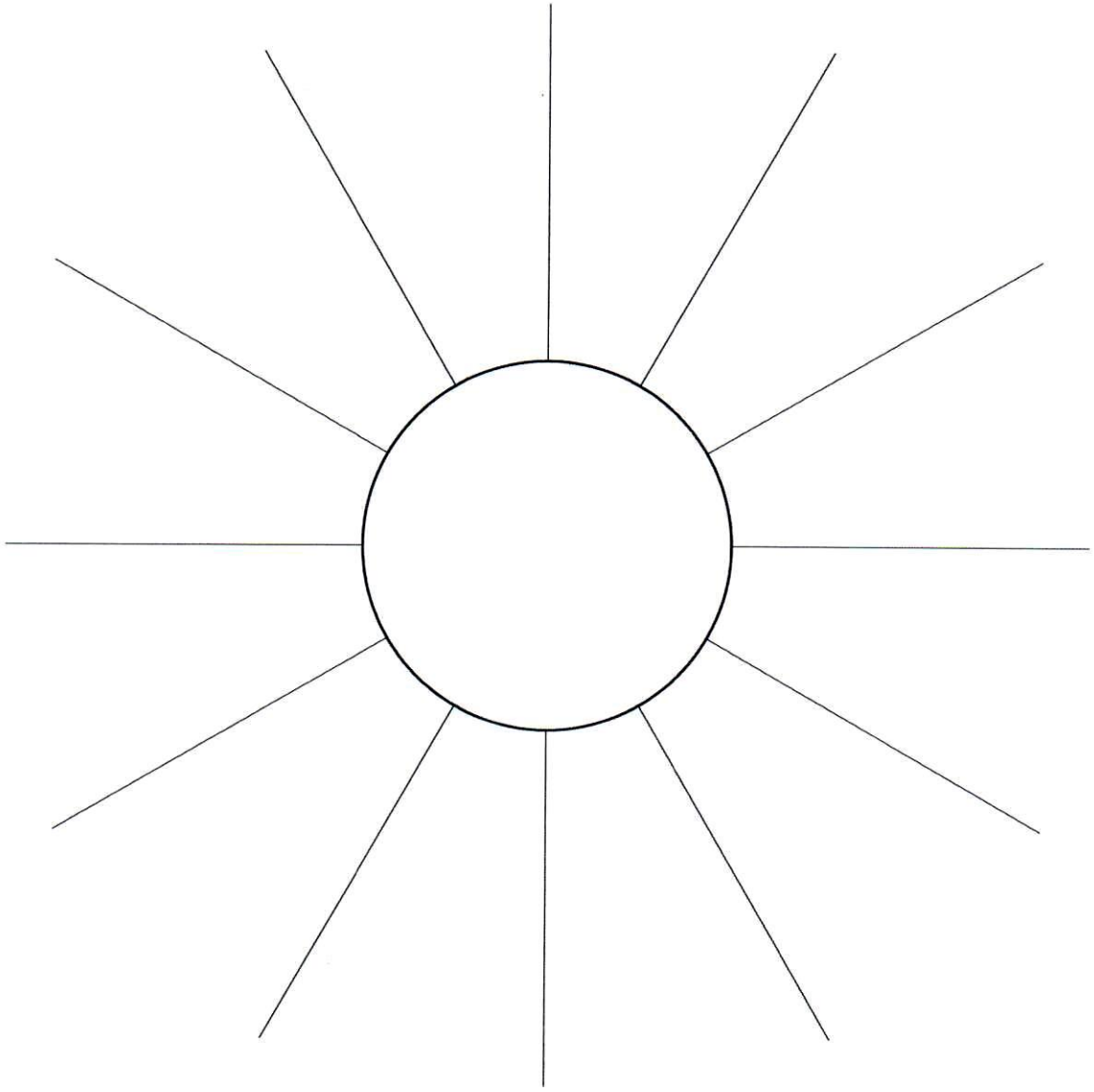
   My GEM research question:

Name

STUDENT HANDOUT 8A

Web of Facts

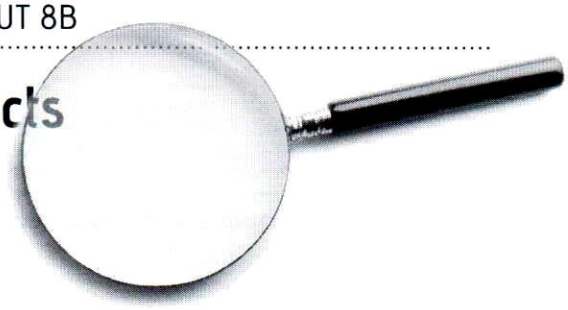
Directions: In the middle of the circle, write your GEM project topic or research question. On the lines that go out from the circle, write facts that you learn. Try to write one fact on each line.



Name

STUDENT HANDOUT 8B

Just the Facts



Directions: Complete the items below.

Write your GEM research question below.

What do you want to know about your question or topic?

Now, record facts on the lines below that may help you to answer your research question. Also record your sources and where you found them (for example, website, documentary, book, field trip).

Fact	**Source**

Name

STUDENT HANDOUT 9

Student Investigation Plan

Directions: Complete the items below.

Investigation question:

What is known:

Hypothesis:

Procedure:

Dependent variable:

Independent variable(s):

Controlled variables:

Data table:

Conclusion:

What I learned from this investigation:

What I would do differently next time:

Note. Adapted from Renzulli et al. (2008).

Name .....

STUDENT HANDOUT 10

Scintillating Science Safaris!

Directions: A Science Safari is a field trip that you would like to take with your class to learn more about your GEM topic. A Science Safari should be to a place that is close by, not far away. You should be able to get there, see the place, and return in one day. With your group, brainstorm possible Science Safari locations below. When you have finished brainstorming, put a star (*) beside your top three favorites. Then, write a sentence or two describing why you think each would be a good Science Safari and how it would help you to learn about your topic.

Idea	Top 3 (Star)	Why?
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Name _____

STUDENT HANDOUT 11

Science Safari to _____

Directions: Think about the Science Safari you took. Then, complete the items below.

1. What did you like about this trip?

2. What did you dislike about this trip?

3. Would you recommend this trip to another student? Why or why not?

4. How could this trip be improved?

Name

STUDENT HANDOUT 12

Student Debate Facts

Directions: Write your debate facts below.

Name:

Fact:

Source:

Information About Source:

Rating of Source:

_____ (1) Not reliable _____ (2) Somewhat reliable _____(3) Very reliable

Name:

Fact:

Source:

Information About Source:

Rating of Source:

_____ (1) Not reliable _____ (2) Somewhat reliable _____(3) Very reliable

Name

STUDENT HANDOUT 13

A Great Debate

Directions: Use the table below to organize and record your ideas for how your team will present your side of the debate.

Debate Question:

Team Name:

Team Position: ____ Pro (For) ____ Con (Against)

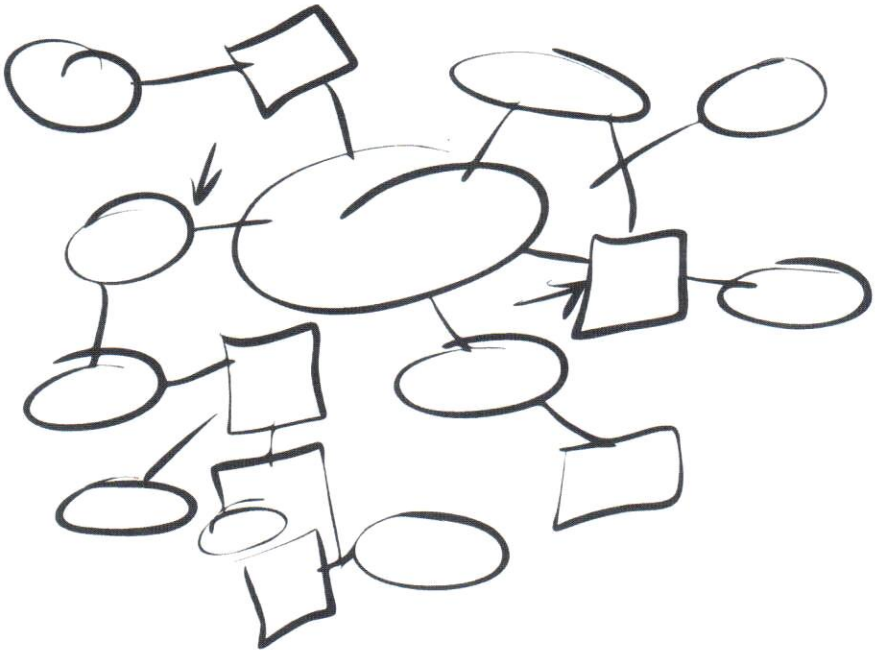
Fact Number	Fact (Write in Complete Sentence)	Rating of Fact (1, 2, or 3)	Source	Presenter
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Name _____

STUDENT HANDOUT 14

Rules of the Road

Brainstorming



1. Come up with as many ideas as possible.
2. Accept all ideas.
3. Write down all ideas.
4. Be respectful.

You will judge the ideas later. For now, come up with as many ideas as possible.

I agree to these rules.

Signed: _____ Date: _____

Name

STUDENT HANDOUT 18

Attributes in Action!

Directions: Use the following lines to plan your attribute listing.

Attribute	Facts	Ideas	Can This Be Done?

Name

STUDENT HANDOUT 19

You Be the Judge

Directions: Write your best three ideas below. Then, write down the pros and cons of each idea. Remember that "pro" means something that's good about it and "con" means something that's not good.

Idea	Pro	Con

Name

Who's Doing What?

Directions:

1. Write the steps required to complete your action plan below.
2. Decide who will complete each step. It's okay if two students work on a task together.
3. Schedule a date by which you will finish each task.
4. Identify what you will need and how you will get each item.
5. Check the task off when you finish it.

Step	Who's Doing It	Due By	What You Will Need	How Will You Get What You Need?	Completed
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Notes:

Name

STUDENT HANDOUT 22

Let Me Know

Directions: Your teacher will use this handout to understand how your group is working together on your project. Please answer the questions below.

1. How well would you say that your group is working together? (check one)

   ____ Very well ____ Okay ____ Not well at all

2. Why did you mark the answer that you gave in #1?

3. Please tell me what your group does well.

4. Tell me how your group could improve.

5. Is there anything you need from me, the teacher, to help you do better?

Name .....

STUDENT HANDOUT 23

Who Wants to Know?

Now that you have finished your project, you need to identify your authentic audience. An authentic audience will probably be someone other than the students in your classroom. It will consist of people who care about your project and the results and who can use the information. Remember that an authentic audience could be people who work for places such as the following:

- Businesses
- Charitable groups
- Event organizers
- Hospitals
- Museums
- Parks
- School boards
- Local government

Directions: Use the following questions to help you identify an authentic audience.

1. Write your research question here:

2. In a few sentences, describe what you found.

3. Who cares about the problem that you investigated?

4. Who has something to lose if the problem is not solved?

5. Who might be able to use the information?

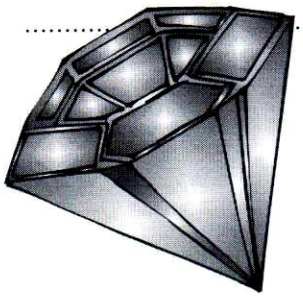
6. How could they use it?

7. Once you have identified an authentic audience, write it below.

My authentic audience is:

Name _____

STUDENT HANDOUT 24



Uncovered GEMS

Please join us to learn about the results of an important investigation that we conducted on an uncovered GEM (Great and Engaging Matters) topic.

We studied _____

_____.

We found that _____

_____

_____

_____.

We hope that you will come and consider how you might use this important information.

Date: _____

Time: _____

Place: _____

Sincerely,

The _____ Grade Class of _____

Name .....

STUDENT HANDOUT 25

Planning Our Presentation

Directions: Use the following questions to plan your presentation.

1. Problem: What was your GEM problem or question?

2. Background: What interested you in this topic?

3. Method: What types of activities did you do to investigate this topic?

4. Results: What did you discover?

5. Recommendations: What have you tried to do about the problem? What else would you suggest should be done about the problem?

We will present our findings in the following ways:

Name .....

STUDENT HANDOUT 26

Thinking It Over

Directions: Think about and discuss all of the steps you have taken to complete your GEM project. You have explored, learned, investigated, debated, solved, presented, and so much more! After you have reflected on all that you have done, answer the following questions.

1. What was your favorite activity? Why?

2. What did you learn from your GEM project?

3. What did you do best? Why?

4. If you could change something about your GEM project, what would you change? Why?