Moon Report

Before we began our 5-paragraph report on the moon, the students learned to write a single paragraph using the 4-square.

One student's example:

Detail: There is no air to breathe, so there is no life.	Detail: Lots of meteorites are able to crash into it and cause craters.
Detail: There is no sound, so you can't talk or hear on the moon without a spacesuit.	Concluding Sentence: As you can see, it is not safe to live on the moon because it has no atmosphere.

Main idea: The moon has no atmosphere.

Her paragrah:

The moon has no atmosphere. There is no air to breathe, so there is no life. Lots of meteorites are able to crash into it and cause craters. There is no sound, so you can't talk or hear on the moon without a spacesuit. As you can see, it is not safe to live on the moon because it has no atmosphere.

Once we were done studying the moon, we created a 4-Square that had a bigger Main Idea, so that the details would be big enough to become little main ideas of their own paragraphs. Instead of a detail just being one sentence, it becomes one paragraph! In order for us to write a whole paragraph about one detail, that detail needs to be more like a "category of information" – something that can have its own supporting details and examples.

Detail: The moon has no atmosphere.	Detail: The moon has 1/6 the gravity of Earth.
Main idea: Earth's moon is very important.	
Detail: The moon revolves around Earth.	Concluding Sentence: As you can see, Earth's moon has no atmosphere, has little gravity, and revolves around Earth.

We could use this 4-Square to write just one paragraph:

Earth's moon is very important. The moon has no atmosphere. The moon has 1/6 the gravity of Earth. The moon revolves around Earth. As you can see, Earth's moon has no atmosphere, has little gravity, and revolves around Earth.

This paragraph is rather boring. We give three important pieces of information about the moon, but we don't explain any of them. We don't elaborate. But, if we let each detail become the main idea of its own paragraph, we can give more information and make the report more interesting! On the next page is the 4-Square template that each student used for writing their five-paragraph report on the moon. We wrote the introductory and concluding paragraphs together.

4-Square

Name: _____

Paragraph 1 (Introduction)

Earth's moon is very important.

Paragraph 2

To begin with,
To start with,

No atmosphere

- _____
- _____
- _____

Paragraph 3

In addition,

One-sixth the gravity of Earth

- _____
- _____
- _____

Paragraph 4

Also,

Revolves around Earth

- _____
- _____
- _____

(Conclusion) Paragraph 5

Hence,
As you can see,
In conclusion,

The moon has no atmosphere, has little gravity, and revolves around Earth.

4-Square

Name: _____

Paragraph 1 (Introduction)

Earth's moon is very important.

Paragraph 2

No atmosphere

Possible details:

- very hot (220°F) on one side and very cold (-279°F) on other side
- no plants or animals can live (too hot, too cold, no water, no air to breathe)
- no weather or water
- no sound
- meteorites can crash into moon and cause craters
- dark sky
- no oxygen to breathe

Paragraph 3

One-sixth the gravity of Earth

Possible details:

- causes high tide on Earth
- bounce when walking on moon because less gravity to pull you down
- jump six times higher on the moon than on Earth
- Things weigh six times less on the moon than on Earth
  - Examples (baseballs go 6x farther, 200 lb spacesuit only weighs 33 lbs, jump 54 in. on moon if 9 in. on Earth)

Paragraph 4

Revolves around Earth

Possible details:

- four phases of moon
- same side of moon always faces Earth, never see the "dark side" of the moon
- only rotates one time in the amount of time it takes the moon to revolve once around the Earth – about 29? days

(Conclusion) Paragraph 5

The moon has no atmosphere,

has little gravity, and revolves

around Earth.

EARTH atmosphere	MOON no atmosphere
1. hear sound	1. no sound
2. sky blue	2. dark sky (black)
3. not too hot not too cold	3. too hot (220°F) too cold (-279°F)
4. plants and animals live	4. nothing living
5. air to breathe	5. no air to breathe
6. protects us from meteorites	6. meteorites cause craters
7. weather, water	7. no weather or water

We generated this T-chart as a class after reading pages 12 - 13 in our text. Students used this T-chart to help them fill in the first square for the Moon Report.

The K-W-L Chart that we created in the fall of 2003

(K and W columns completed before our study of the moon; L column completed afterward)

Moon

Note: The orange color is used to show what we marked on the chart AFTER finishing our unit on the moon)

Know	Want	Learn
• ~~white~~ (grey) • reflects sun's rays (doesn't have it's own light) • ~~moving away from the Earth~~ • always in sky 24-7 • craters on it (look like a face) • smaller than sun • moon stays with Earth when Earth moves around sun	• how it was created • how it was created • Any other flags on it? • What crater looks like • If it looks same on each side • How did moon get put in sky? • Is it a planet or not?	• Moon revolves around Earth in its own orbit • Meteorites crash into the moon and make craters • NOT a planet • Astronauts went on the moon • Four phases • Same side of moon always faces Earth • Takes 27 days for moon to revolve

continued...

Know	Want	Learn
• American flag on it • ~~A planet~~ • Moon created when planet crashed into Earth and pieces went out into space and formed moon • ~~Closest planet to Earth~~ • ~~900 craters~~	Just a "theory" – not a fact	around Earth • Dust and rocks covering it • Moon controls high tide of ocean • No life • 1/6 gravity of Earth (things float) • No air/no oxygen • People used to think dark spots were seas • No atmosphere • No plants/animals • Boil/freeze without suit • 220°F or - 279°F (very hot, very cold) • no sound

Student Exemplar

Name:

(1) Earth's moon is very important.

(2) To begin with,
- no atmosphere
- √2 • no air
- √3 • no weather
- √4 • too hot too cold

(3) In addition,
- √1 one-sixth the gravity of Earth
- √2 • causes high tides
- √3 • hard to walk
- √4 • weigh less

(4) √1 Also,
- revolves around Earth
- √2 • moon has 4 phases
- √3 • 29 day to revolve around Earth
- √4 • never see the dark side of the moon

(5) Hence, the moon has no atmosphere, has little gravity, and revolves around Earth.

Student #4

Science

1/14/05

The Moon

Earth's moon is very important. To begin with, the moon has no atmosphere. There is no water because there is no weather. It is too hot on one side of the moon and too cold on the other side.

In addition, the moon has one-sixth the gravity of Earth. The gravity of the moon causes high tides on Earth. It's hard to walk on the moon because there is less gravity to pull your feet down. Things weigh six times less than on Earth. Also, the moon revolves around Earth. The moon has four phases. The moon takes 29 days to revolve around Earth. We never see the dark side of the moon.

Hence, the moon has no atmosphere, has little gravity, and revolves around Earth.

Science

Student Exemplar
Jan. 20, 2004

The Moon

Earth's moon is very important.

To begin with, the moon has no atmosphere. There is no air on the moon. There is no water because there is no weather. It's too hot on one side of the moon and too cold on the other side.

In addition, the moon has one-sixth the gravity of Earth. The gravity of the moon causes high tides on Earth. It's hard to walk on the moon because there is less gravity to pull your feet down. Things weigh six times less than on Earth.

Also, the moon revolves around Earth. The moon has four phases. The moon takes 29 days to revolve around Earth. We never see the dark side of the moon.

Hence, the moon has no atmosphere, has little gravity, and revolves around Earth.