Data Cube Questions

Keywords (add more words):
collect/collection data highest value instrument
lowest value measure

1. Examine - What are the data (information) about?
   a. The data (information) are about ___________________________.
      Example: air temperature, precipitation, plants, etc.
   b. By looking at the data I see ________________________________.

2. Search and Find - How were the data measured?
   a. The data were collected by _________________________________.
      Example: me, scientist, satellite, etc.
   b. The instrument used to measure this data was a/an _____________________.
      Example: thermometer, ruler, etc.

3. Analyze - What do the data show?
   a. The place on Earth where the data were collected is _____________________.
      Example: city, state, latitude/longitude, global, etc.
   b. I observe that the time when the data were collected is _________________.
      Example: month, year, day, etc.

4. Ask - Write your own questions using the data.
   a. Why ________________________________?
   b. How ________________________________?

5. Connect - How can we use this information to help us?
   a. These data help us understand _________________________________.
   b. These data can help scientists by _________________________________.

6. Assess - What does the information tell you? Calculate or estimate using the data.
   a. The highest value is _________. The lowest value is _____________.
   b. Graph the data (use graph paper or create your own graph to show your information).
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4. Ask- Write your own questions using the data.
   a. Why ________________________________________________?
   b. How ________________________________________________?

5. Connect- How can we use this information to help us?
   a. These data help us understand_______________________________.
   b. These data can help scientists by_______________________________.

6. Assess- What does the information tell you? Calculate or estimate using the data.
   a. The highest value is ___________. The lowest value is ___________.
   b. Graph the data (use graph paper or create your own graph to show your information).
Data Cube Questions

Keywords (add more words):
collect/collected  data  geographic area  highest value
lowest value  time range  unit

1. Examine- What are the data (information) about?
   a. The unit used for the data is ______________________ Example: °C, cm, kg, etc.
   b. The data represent (are about) ______________________ Example: temperature, distance, mass, etc.

2. Search and Find- How were the data measured?
   a. The data were collected every ______________________ Example: day, week, month, year, etc.
   b. The data were collected by ______________________ Example: me, scientist, satellite, etc.

3. Analyze- What does the information tell you? Calculate or estimate the numbers using the data.
   a. The highest value is ____________ and represents ____________.
   b. The lowest value is ____________ and represents ____________.
   c. The pattern/s I see ____________ in the data is/are ____________
      Example: the most, the least, etc.

4. Ask- Write your own questions using the data.
   a. Why does ______________________?
   b. How can ______________________?

5. Connect- How can we use this information to help us?
   a. These data help us understand ______________________.
   b. These data help explain why ______________________.
   c. These data can help scientists understand ______________________.

6. Assess- What do the data show?
   a. The geographic area of Earth where the data were collected is __________.
      Example: city, state, latitude/longitude, global, etc.
   b. The time range (when did it happen?) is from __________ to __________.
      Example: Monday, October, 12:00, etc.
   c. Graph the data. (Use graph paper or create your own graph to show your information.)
**Data Cube Questions**

Keywords (add more words):
- collect/collection
- data
- geographic area
- highest value
- lowest value
- time range
- unit

1. **Examine** - What are the data (information) about?
   - a. The **unit** used for the data is ___________________________.  
     Example: °C, cm, kg, etc.
   - b. The data represent (are about) ___________________________.  
     Example: temperature, distance, mass, etc.

2. **Search and Find** - How were the data measured?
   - a. The data were **collected** every ___________________________.  
     Example: day, week, month, year, etc.
   - b. The data were **collected** by ___________________________.  
     Example: me, scientist, satellite, etc.

3. **Analyze** - What does the information tell you? Calculate or estimate the numbers.
   - a. The **highest value** is _______________ and represents _______________.
   - b. The **lowest value** is _______________ and represents _______________.
   - c. The pattern/s I see _______________ in the data is/are _______________.  
     Example: the most, the least, etc.

4. **Ask** - Write your own questions using the data.
   - a. Why does _______________?  
   - b. How can _______________?

5. **Connect** - How can we use this information to help us?
   - a. These data help us understand _______________.  
   - b. These data help explain why _______________.  
   - c. These data can help scientists understand _______________.

6. **Assess** - What do the data show?
   - a. The **geographic area** of Earth where the data were **collected** is _______________.  
     Example: city, state, latitude/longitude, global, etc.
   - b. The **time range** (when did it happen?) is from _______________ to _______________.  
     Example: Monday, October, 12:00, etc.
   - c. Graph the data. (Use graph paper or create your own graph to show your information.)
1. Examine - What are the data about?
   a. The variable is __________________. It represents _____________________.
   b. The independent variable is__________________________________________________.
   c. The dependent variable is______________________________________________________.

2. Search and Find - How were the data measured?
   a. The __________________________instrument collected these data.
   b. The data are collected every __________________________ Example: day, week, month, quarter, year, etc.
   c. The unit used to describe the data is_______________________________ Example: °C, cm, kg, etc.

3. Analyze - What does the data show?
   a. The geographic area of Earth that is represented is______________________________.
   b. The time range is from________________________ to ____________________________.
   c. This variable belongs in the________________________sphere of the Earth System.
      Example: Hydrosphere, Atmosphere, etc.

4. Ask - Write your own questions using the data.
   a. How do..., Why..., What is... _________________________________.
   b. I would like to compare________________ with these data because________________.
   c. How do these data affect another sphere in the Earth System?

5. Connect - How can we use this information to help us?
   a. These data help us understand _________________________________.
   b. These data can explain the phenomenon of______ because_______________.

6. Assess - What does the information tell you? Calculate or estimate the numbers
   using the data.
   a. The range of the data is_______________________________________________.
   b. The data’s mean is equal to _______; median _______; mode _________.
   c. The measure of central tendency that best represents the data is the
      _______. This is because _________________________________.
   d. Graph the data (use graph paper or create your own graph to show your
      information).
1. **Examine** - What are the data about?
   a. The variable is __________________. It represents ____________________.
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2. **Search and Find** - How were the data measured?
   a. The ___________________________ instrument collected these data.
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   a. How do..., Why..., What is... _____________________________.
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6. **Assess** - What does the information tell you? Calculate or estimate the numbers using the data.
   a. The range of the data is _____________________________.
   b. The data’s mean is equal to ________; median __________; mode ________.
   c. The measure of central tendency that best represents the data is the ________ mean, median or mode. This is because _____________________________.
   d. Graph the data (use graph paper or create your own graph to show your information).
Data Cube Questions

1. **Examine**- What are the data about?
   a. What does the variable represent?
   b. What is the range of the data?
   c. In which sphere of the Earth System does this variable belong?

2. **Search and Find**- How were the data measured?
   a. What instrument/s collected these data?
   b. How frequently were the data collected?
   c. What unit describes the data?

3. **Analyze**- What does the data show?
   a. What geographic area on Earth do the data represent?
   b. What time range do these data represent?
   c. What area and time data would you like to collect to help you analyze these data?

4. **Ask**- Write your own questions using the data.
   a. Identify a question related to these data that you could research.
   b. Identify another scientific variable that you could evaluate with these data.
   c. How do you think this area compares to other geographic provinces in your region? (i.e., coastal plain, highlands, etc.)

5. **Connect**- How can we use this information to help us?
   a. What kinds of research questions could we use these data for?
   b. Describe how you may use these data to explain a naturally occurring event.
   c. How is technology connected to these data?

6. **Assess**- What information do you see on the graph?
   a. Are there any outliers? If so, what are they?
   b. Do the outliers meet your expectations? Why/Why not?
   c. Graph the data (use graph paper or create your own graph to show your information).
Data Cube Questions

1. Examine - What are the data about?
   a. What does the variable represent?
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