

Name _____

Directions: Complete this scavenger hunt while exploring and investigating the Climate Change Exhibit at the Birch Aquarium. This will be collected at the end of the day by your chaperone and then given to Mr. Curtis. **This will be graded on accuracy and completion!**

- i. How much has the Global average temperature climbed in the past 100 years?
- ii. What is happening to the world's glaciers all over the world?
- iii. What do you notice has happened to the North Pole from 1979 to 2012?
- iv. In San Diego, each foot of sea level rise allows waves to reach how many feet further up the shore?
- v. At what rate are many species moving towards the poles?
 - i. Why do you think they are moving towards the poles?
- vi. What affect does less plankton in the ocean have on other animals?
- vii. How much has the sea level risen over the 20th Century?
- viii. Check out the Warmer World Map. What are some observations you can make from this map?
- ix. How much higher have annual average temperatures climbed in the last 50 years in Antartica?

- x. How much CO₂ keeps us in the comfort zone?
- xi. Describe the greenhouse effect.
- xii. According to the map, how much CO₂ (parts per million) were in our atmosphere:
 - i. 500,000 years ago?
 - ii. 1,000 years ago?
 - iii. Today?
- xiii. How much has the CO₂ level grown from 600,000 years until today?
- xiv. How much higher are CO₂ emissions expected to go by 2050 if emissions are not reduced?
- xv. How much further are they expected to go by 2050 if emissions are reduced?
- xvi. By what percent has CO₂ increased since the Industrial Revolution?
- xvii. Explain who Charles David Keeling is and what he does for a living.

xviii. What do experts believe is a safe amount of CO₂ to have in the atmosphere?

xix. Why have there been Ice Ages every 100,000 years?

xx. Why have the oceans acted like a break on global warming?

xxi. Are the oceans warming?

xxii. What does an Argo float do?

xxiii. What are Aerosols?

i. How do Aerosols relate to climate change?

xxiv. Compare the healthy coral reef to the bleached coral reef. What do you notice?

xxv. What causes reefs to get bleached?

xxvi. Why are the shells of many marine species affected by climate change?

xxvii. Check out **YOUR CHALLENGE**. Which options would you choose?

xxviii. Check out **VISUALIZE THE FUTURE**. What are some new technologies and ways we can reduce carbon pollution?

xxix. What are some ways you can reduce your carbon footprint?

xxx. Which light bulb requires less energy to light?

xxxi. How much CO₂ are you emitting in YOUR LIFESTYLE by using some of your appliances? (SPIN THE WHEEL AND SEE!)