

## **Race Against Time**

Watch the Following Link, take notes throughout and write a summary.

<http://kidsahead.com/subjects/12-space/articles/488>

Running time approx 30mins.

## **Race Against Time**

### **Chapter 1 - Apollo 8: Monday, December 23rd 1968**

Read Chapter 1 in your reciprocal reading group and discuss.

1. Make notes of the main points of the Chapter on your Notes Sheet.
2. What did Jim Lovell see as he looked out of the window of the spacecraft? Describe what it looked like.
3. How does he describe his view of Earth?
4. Who were the first humans to see the earth rise?
5. What did Jim tell himself?

\*Follow up Task

Research the people that were members of the space crew who went on the Apollo 13 space missions. Name them and print out their photographs and stick them into your jotters.

## **Race Against Time**

### **Chapter 2 - Apollo 13: Saturday, April 11th 1970 1:13pm Houston Time**

Read Chapter 2 in your reciprocal reading group and discuss.

1. Make notes of the main points of the Chapter on your Notes Sheet.
2. Write the definitions of *command module*, *launch pad* and *launch vehicle*.
3. Who was the commander of Apollo 13 and where would he be 3 days on ?
4. What were the names of the men beside him in the spacecraft?
5. How many times had Jim Lovell travelled to the moon?
6. How many minutes did it take for the spacecraft to burst out of the atmosphere?
7. What happened when the astronauts released their straps?
8. What speed did they fire the engines up to as they were heading for the moon?

#### **\*Follow Up Task**

Research what an astronaut does and write a description of their duties.

Find out what their spacecraft looks like and print out or draw pictures of it.

## **Race Against Time**

### **Chapter 3 - Saturday, April 11th 4:32pm**

Read Chapter 3 in your reciprocal reading group and discuss.

1. Make notes of the main points of the chapter on your notes sheet.
2. Who was the pilot of Odyssey?
3. What was the trickiest part of the mission?
4. Why did he fire the engines up?
5. What was Fred's job when they reached the moon?

## **Chapter 4 - Monday, April 13th 8.59 p.m.**

Read Chapter 4 in your reciprocal reading group and discuss.

1. Make notes of the main points of the chapter on your notes sheet.
2. How were people from Earth able to see the moon?
3. Note down some of the *special speech* used when the astronauts are talking to people in Mission Control.
4. What held oxygen for the crew to keep them alive?
5. What other jobs did the oxygen perform?
6. How were they alerted that they had a problem?
7. What did the astronauts think had hit them? Explain what it is and why it was so dangerous.

### **\*Follow Up Task**

The “astronauts” are going into space in thirty minutes. Think of and write down questions you could ask them about: how they feel?, how their families feel?, what will they miss?, etc..

Now put yourself in their position and answer these questions from what you think their point of view might have been.

## **Chapter 5 -Monday, April 13th 9:18pm**

Read Chapter 5 in your reciprocal reading group and discuss.

1. What did Gene Krantz hear the astronauts discuss that told them there were in serious danger?
2. How could Jim not get the spacecraft to fly straight? Why was this so dangerous for the crew?
3. What were Jim’s words he spoke to ground control?

### **\*Follow Up Task**

Imagine you are Jim and write down what he must be thinking at this time. Think of his duties as an astronaut and think of thoughts of his family and home.

## **Chapter 6 - Monday, April 13th 9:32 p.m**

Read Chapter 6 in your reciprocal reading group and discuss.

1. What did Jim think about how much oxygen they had left and was it enough for them to survive on till they reached home?
2. What were the astronauts going to use to get home with?
3. What would be the problem with this?
4. What did Mission Control ask the crew to do?
5. What was the oxygen that was leaking doing to Odyssey?
6. As the systems were being shut down what was happening to the inside of the spaceship?
7. Where did ground control ask the astronauts to go?
8. Why did Jack Swigert stay behind on Odyssey?

## **Chapter 7 - Monday, April 13th 10:47 p.m.**

Read Chapter 7 in your reciprocal reading group and discuss.

1. Who was starting up Aquarius(lunar module) ?
2. Why was Jim copying down lots of numbers and double checking them with ground control?
3. Why was there so much concern about what the astronauts were doing?

\*Follow Up Task

Research what the Lunar Module Aquarius looked like and draw a picture of it.

## **Chapter 8 - Tuesday, April 14th 12:02 am.**

Read Chapter 8 in your reciprocal reading group and discuss.

1. What would pull them close to Earth and why wasn't any good to them?
2. What would they see as they passed Earth?
3. What would help them change their course?
4. Why couldn't they see the stars?
5. How much time did ground control give them to burn(fire up) their engines?
6. Who was the main pilot who worked on Aquarius?
7. Was the 'burn' successful?
8. What did ground control say to the astronauts?
9. What were the problems with them travelling in Aquarius?

### **\*Follow Up Task**

Discuss with a partner how you think the astronauts may be feeling at this point. Record the main points of your discussion in a mind map or draw the astronauts and place describing words(adjectives) of how they feel.

## **Chapter 9 - Tuesday, April 14th 5:17a.m.**

Read Chapter 9 in your reciprocal reading group and discuss.

1. How many hours had the crew been working for?
2. What was the temperature like in Odyssey?
3. What allowed the crew to finally see the stars?
4. Describe what view the crew got of the moon?
5. What did Houston tell the crew to get ready for ?
6. How many hours later did they go for a 'burn' again?
7. Was the second 'burn' successful?
8. Why had they to turn off most of the spacecraft's power?

## **Chapter 10 - Monday, April 15th 3:00a.m.**

Read Chapter 10 in your reciprocal reading group and discuss.

1. Why did the moon look further away now?
2. Why were the CO<sub>2</sub> levels important?
3. Explain the system Aquarius had for taking the carbon dioxide out of the air?
4. What was the problem with the filters in Aquarius?
5. What was the scientist called Ed Smylie working on?
6. What was the temperature in Odyssey now?
7. What did the crew use to help them make the new canisters ?
8. What did Jack say when they finished making the new canisters?
9. Did the canisters work? Explain.

## **Chapter 11 - Wednesday, April 15th 10:30p.m.**

Read Chapter 11 in your reciprocal reading group and discuss.

1. What was pulling the spacecraft along now? Explain what that is.
2. Why was the course the spacecraft on dangerous?
3. What were the astronauts told to do whilst they did a mid course 'burn'?
4. What would happen if they got it wrong?
5. Did it work?
6. If all went to plan when would they hopefully land in the Pacific Ocean?
7. What would need to be brought back to life to help get them to Earth?
8. What was Jim worried about?

### **\*Follow up Activity**

The space crew in this mission had really to work well as a team and help each other, using the best of their personal qualities and their skills that they each had.

Write about a time where you feel you have had to work well with others as a team.

## **Chapter 12 - Thursday, April 16th 6:30p.m.**

Read Chapter 12 in your reciprocal reading group and discuss.

1. What was wrong with Fred?
2. Why was there condensation in Odyssey?
3. How long did it take Jim to write down the instructions for firing up Odyssey?
4. When Jack was to press the switch SM JETT what would happen?
5. What would happen when Jack would press the switch LEM JETT?
6. What was he worried about and what did he do to help him stop worrying?
7. How many hours was it approximately till they entered the earth's atmosphere?
8. Why were they lucky to be alive?

## **Chapter 13 - Friday, April 17th 10:00a.m.**

Read Chapter 13 in your reciprocal reading group and discuss.

1. What words did Houston use to tell the crew to fire up Odyssey?
2. How many hours till they reached the Pacific Ocean?
3. How far had the Lunar Module carried them?
4. How did the astronauts feel as they were passing into the Earth's atmosphere? What did they see?
5. How long had they been up in Space?
6. Which astronaut was first to speak to Mission Control?
7. What was the reaction of the people in mission control when they knew the crew were safe?
8. What did Jim Lovell say to his crew?

\* Follow up Task

Complete a book review.

