



**Curriculum Links**  
**The Sharing Circle, Season 14, Episode 10:**  
**Take Flight**

**Suggested Grade Levels:**

All Grades  
Grades 4 & 5            Social Studies  
Grade 6                 Science (Flight)  
Grades 7 – 12         Guidance

**Curriculum Themes:**

- Career Development
- Inuit
- Role Models - Women, Inuit and West Coast
- Science - Flight

**Summary of Episode:**

For many northern First Nation communities, the plane is more than an optional means of transportation. It is a vital lifeline. Yet a very small percentage of North American pilots are Aboriginal. Today, with some reserves taking control by owning and operating their own airlines, this is starting to change. We meet three Aboriginal pilots in various stages of expertise. Juupi Tuunik from Nunavik is beginning primary training. Melissa Haney, a young part Inuit woman, is early in her professional career as a twin otter first officer with Air Inuit. Finally, Wallace Watts has achieved his ultimate goal of becoming a United Airlines 747 captain.

### **Vocabulary:**

- Aboriginal Pilots
- Accomplishment
- Achieve
- Air Inuit
- Air Traffic Controller
- Airplane
- Astronaut
- Aviation College
- Captain
- Captain 744
- Challenges
- Co-Pilot
- Coordination
- Manuvers
- DC 9
- DC 10
- Destination
- English language
- Environmental affects
- Female Pilot
- First Officer
- Flight Attendant
- Flight School
- Fun
- Highest Mountain
- Hudson's Bay
- Inuit Pilots
- Innuksuac
- Instrument reading
- Inuit
- Inuktitut
- Jet
- Juupi Tuunik
- Landing
- Melissa Hainey
- Montreal
- Navigation
- Never give up
- Northern flights
- Northern Quebec
- Nunavik
- Primary Flight Training
- Radio communication
- Responsibility
- Saluit
- Screening process
- 747
- Set high goals
- Study
- Take off
- Transport Canada
- Twin Otter
- Vancouver Island
- Veteran Pilot
- Wallace Watts
- Walk around
- Weather affects
- Weight

### **Suggested Activities:**

- Many Aboriginal Groups across Canada had a keen understanding of their environment. Discuss how planes move through the air. Compare this with animals and plants in the environment. Discuss the importance of those animals and plants with Aboriginal groups. Discuss how these animals move through the air, water or ground. Read legends related to birds i.e.: Eagle, Raven, Owl etc.
- Look at historical Aboriginal technology. What flew through the air? Make some of these objects using common materials. You may want to consider such things as bow and arrow, spears, balls, etc. There is one activity where you use a balloon and put cardboard quivers or "feather" pieces on it to distribute weight so that the balloon does not fly erratically. The person who's balloon flies the straightest and farthest wins. You attach the cardboard pieces with tape and straws.
- Study hot and cold air. The iglu was a form of technology that considered the movement of these forces. Learn about how Inuit kept warm by keeping their beds at a higher level than the door.
- Learn about the West Coast and Inuit groups mentioned in the video

### **Suggested Activities (Continued):**

- Discuss role models and career development. What are some dreams students have and how can they achieve them?
- Research the history of women as pilots. Why are some careers difficult for women to enter?
- Study the different types of planes and schools available for pilots in Canada. What opportunities are available for Aboriginal youth?
- What are the pros and cons of planes. What are some of the dangers involved. Look at major events that occurred with planes.
- How have planes changed our views and how we interact? Our global community is much more accessible. This brings many positive and negative events. Discuss some of these.
- Go to a museum that discusses airplanes and aviation
- Look at Aboriginal people who were involved in the war. How many knew how to fly planes?
- Discuss how planes may affect the environment and animals. There are many values that each Aboriginal group has in place. Is there anyway to keep the convenience of planes but be cognisant of how planes affect animals and the environment.
- Write a story from a bird's point of view when you realize these big planes are in your territory.
- Study angles associated with bow and arrows. What happens if you shoot the arrow straight? Toward the ground? Toward the sky? make diagrams to show the angle and how well the arrow flew.

**Additional Resources (online):**

- Aviation  
<http://www.aviation.technomuses.ca/>
- Civil Aviation  
<http://www.tc.gc.ca/CivilAviation/general/Flttrain/menu.htm>
- Iglus  
[http://iglu-dorf.com/Faq\\_en.html](http://iglu-dorf.com/Faq_en.html)
- Native Access  
<http://www.nativeaccess.com/modules/index.html>
- Western Canada Aviation Museum  
<http://www.wcam.mb.ca/>

## **Bow And Arrow-Flight Experiment**

The bow and arrow was used widely on Turtle Island for thousands of years. In order for the arrow to fly straight, the people had to have a good understanding of flight, thrust, balance, weight and direction.

Let's try an experiment to see what we can learn about flying objects.

### **Materials:**

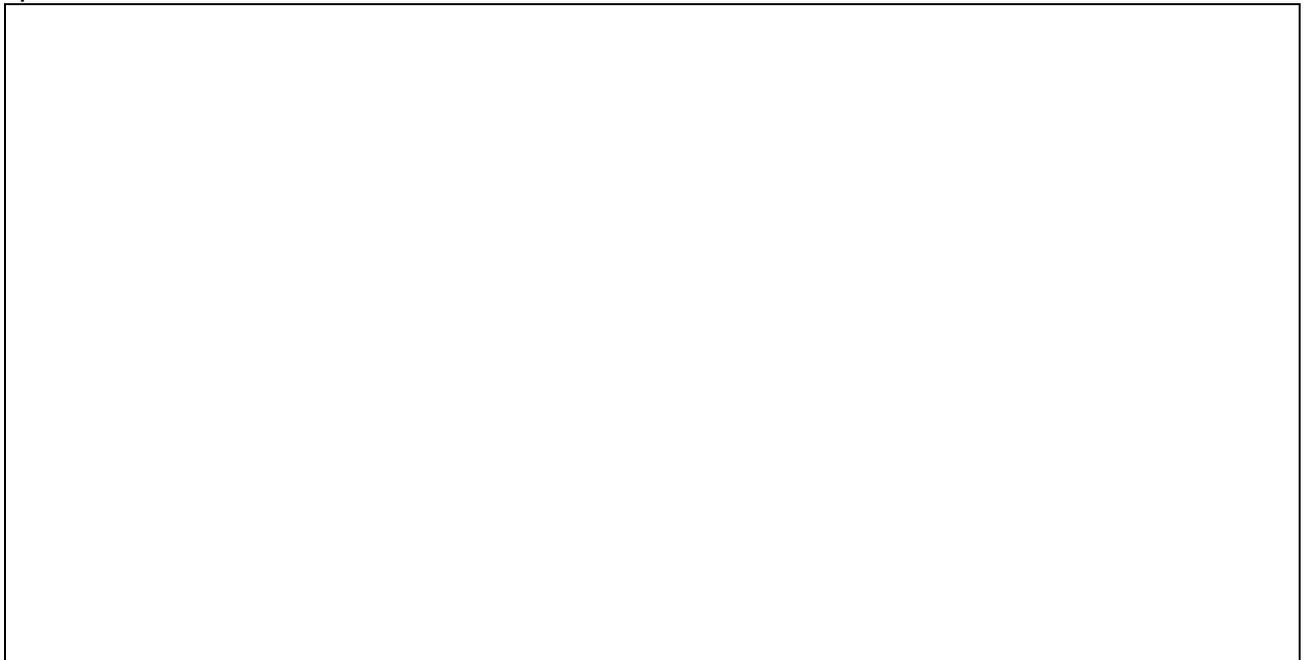
- Balloon
- Tape
- Scissors
- Cardboard (cereal box)
- Straws

### **Goal:**

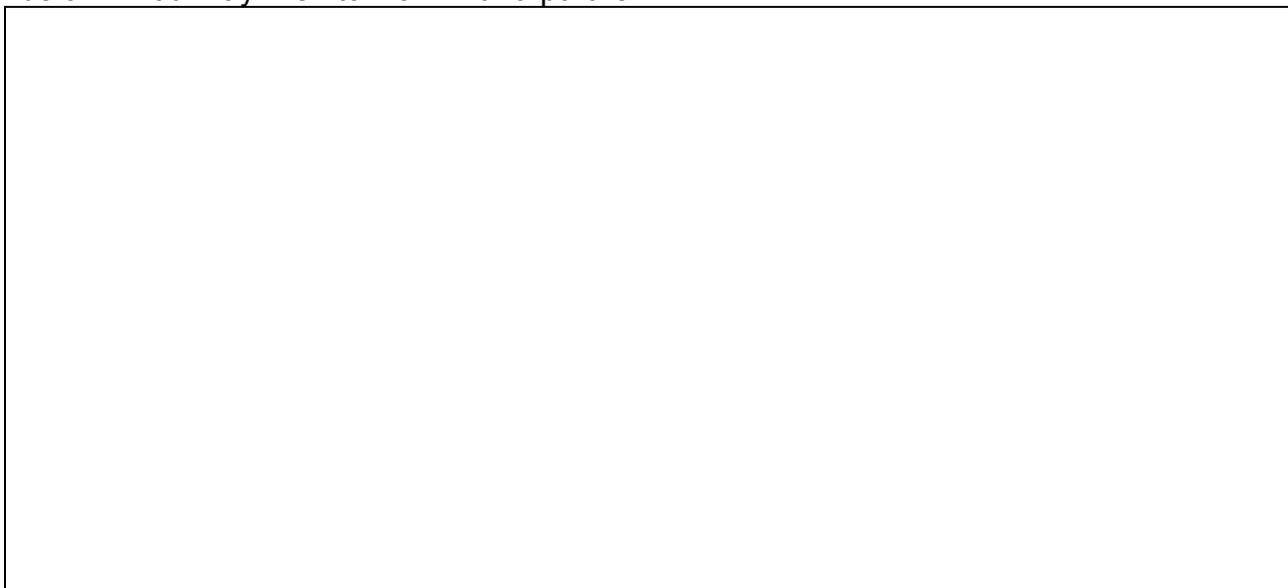
The goal is to see who's design will fly the straightest and farthest. Why do you think some designs are more successful than others?

### **Your design:**

Blow up your balloon and let it go. What happens? How would you describe it's flight pattern?

A large empty rectangular box with a thin black border, intended for students to draw or write their experimental design and observations.

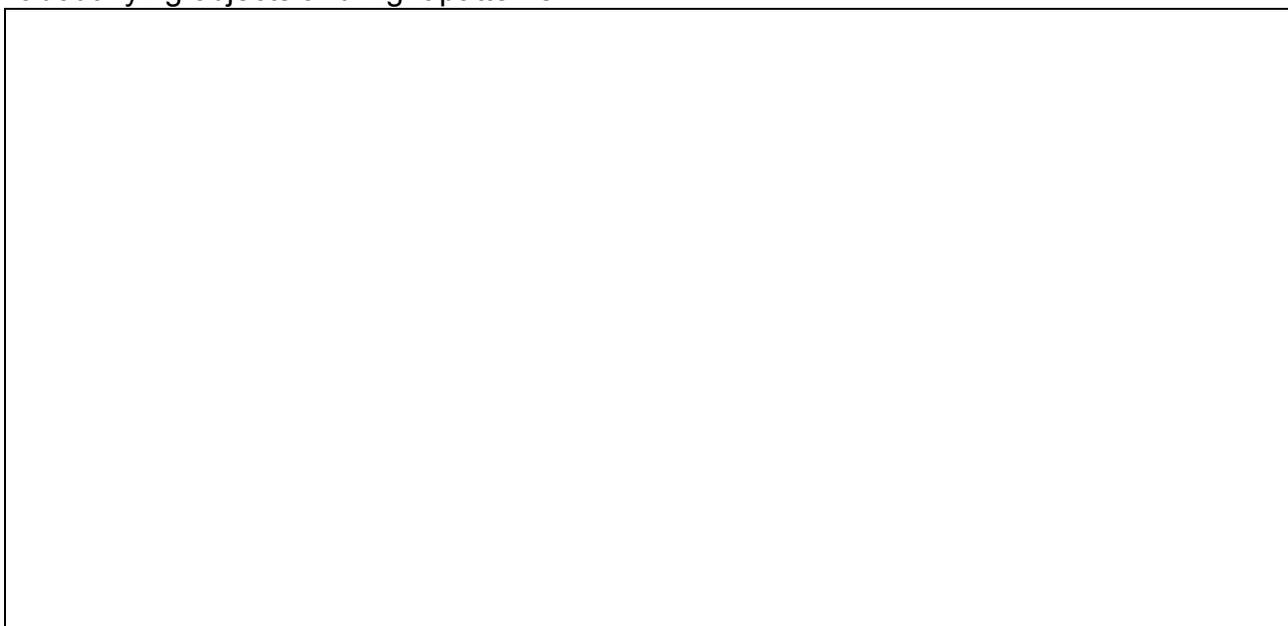
Use the materials given. You will blow up your balloon and tie it (not too tight) and then put the straws and cardboard on it to help guide the flight of the balloon. You hope to place the straws and cardboard on it so that the weight and airflow becomes more balanced. This way, the balloon will fly in a straight line. Draw a picture of your design below. You may wish to work with a partner.



**Observations:**

Take turns letting go of your balloons. Use masking tape to mark where each group's balloon landed. Who's balloon flew the farthest? Draw a diagram of the balloon that flew the farthest and write comments about why that was the case.

You may wish to watch a video on the construction of bow and arrows to learn more about flying objects and flight patterns.



**Bow and Arrow**  
**Angles**

If you were to hold the arrow at a right angle what would that look like? How successful do you think the shot would be at hitting a target 10 feet away?

If you were to hold the arrow at an acute angle what would that look like? How successful do you think the shot would be at hitting a target 10 feet away?

If you were to hold the arrow at an obtuse angle what would that look like? How successful do you think the shot would be at hitting a target 10 feet away?

Conclusion:

## **Role Models and Career Choices**

Pick your favourite role model from the show. Give some background information about the person and tell why you picked this person. What qualities do they have that you see in yourself? What qualities helped them to achieve their goal?

What types of activities are you good at? What do you enjoy to do? Some people are good at sports, music, being in nature, helping people, babysitting, writing, reading, talking, technology, art etc. Write about what your strengths are.

What types of jobs would require your set of skills at? Brainstorm a list of occupations that relate to your strengths and then research how to achieve that occupation. Do you require further education after high school? What kind? What kind of courses are you required to complete in high school in order to be accepted into further education? What other considerations do you have to remember? Do you have to move? Do you have supports? Are you a parent? Good luck and I hope you find success in your journey!

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