



**Lesson 5: Researching and Redesigning**



Let's watch the  
**Invention**  
**Process** in  
action.

Invention Process = Design Process

# WHAT NEW QUESTIONS DO WE HAVE?

- **Who** is the invention for?
- **How** are they affected by the problem?
- **How** does the solution help?
- **Does** this solution idea **already exist**?

# HOW CAN WE LEARN MORE?

- What **resources** can we use?
- **Who** might be able to help us?

# RESEARCH

Gathering facts and information to help us better understand.

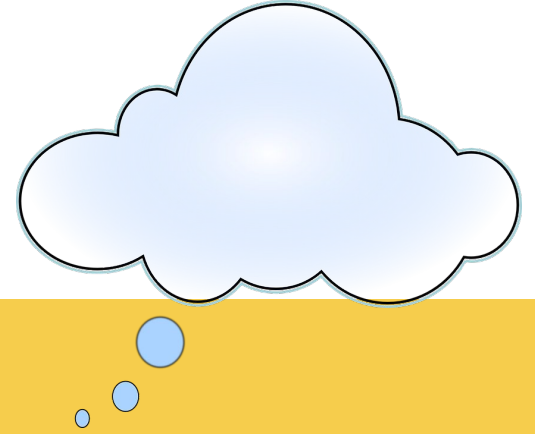


# HOW DO WE RESEARCH?

## Look it up!

- Use **keyword searches**
- Use **internet sites**
  - **US Patent and Trade Office (USPTO)**
  - **Amazon**
  - **Target**

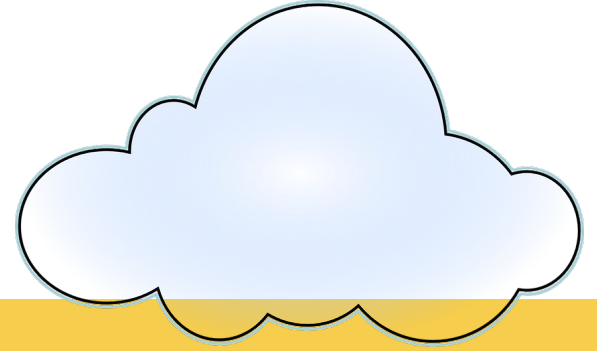
# LET'S TRY IT



**KEY WORDS:** “Improved Umbrellas”



# LET'S TRY IT

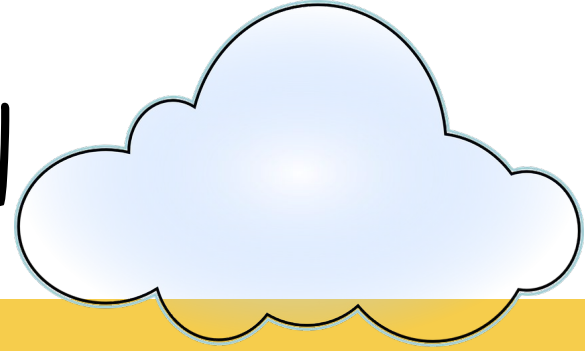


What are my **keywords**?  
“Umbrellas for Animals”

Add more keywords for more detailed information.



# LET'S TRY IT AGAIN



Be more specific:

“Umbrellas for **Squirrels**”

Add more keywords for more detailed information.

# RESEARCH SITES

**US Patent and Trade Office:** [www.uspto.org](http://www.uspto.org)

**Amazon:** [www.amazon.com](http://www.amazon.com)

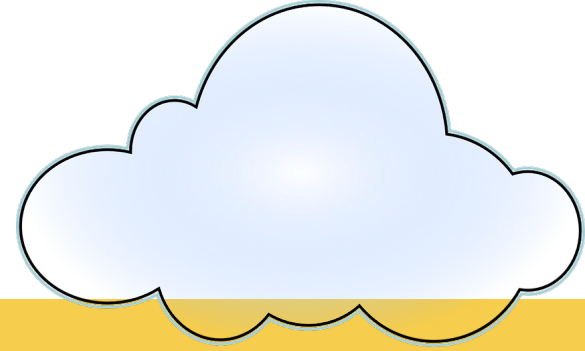
**Target:** [www.target.com](http://www.target.com)

# FEEDBACK

**Feedback=** Giving someone information about their behavior, actions or performance.



# CONSTRUCTIVE FEEDBACK



- **PLUSES**= good things, things you like about the idea
- **POTENTIALS**= new ideas to improve
- **CONCERNS**= questions or challenges you see in the idea.

# GALLERY WALK



- **Why did you choose these ideas?**
- **What do you like best about them?**
- **Do you think one idea is better than the other?**

# PARTNER SHARE

Share your ideas with a partner. Be sure each partner has time to speak.



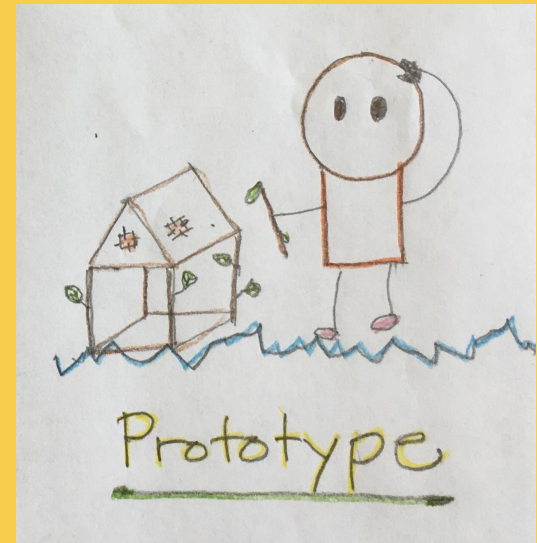
# HELPFUL QUESTIONS TO ASK?



- **Do you think my idea solves the problem?**
- **Is it something I can build?**
- **Is it useful?**
- **What ideas do you have to make it better?**

# TIME TO REFINE THE DESIGN

Draw a design for your solution including the new improvements you wish to add. This will be your **prototype**!



Inventive Thinking