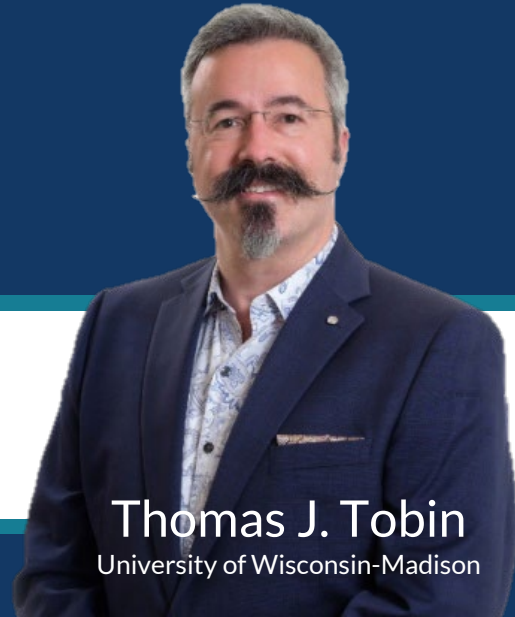




# What Universal Design for Learning Looks Like



Australian Disability  
Clearinghouse on  
Education and Training

ADCET Webinar Series  
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Thomas J. Tobin  
University of Wisconsin-Madison



Welcome to our webinar.



# Learning Objectives

- design materials & interactions to provide multiple learner pathways,
- engage with learners to help them sharpen their own learning skills, &
- ask learners to guide their own learning, with us as expert guides.



# Universal Design for Learning

- Multiple means of
- learner engagement
  - representing information
  - demonstrating skill

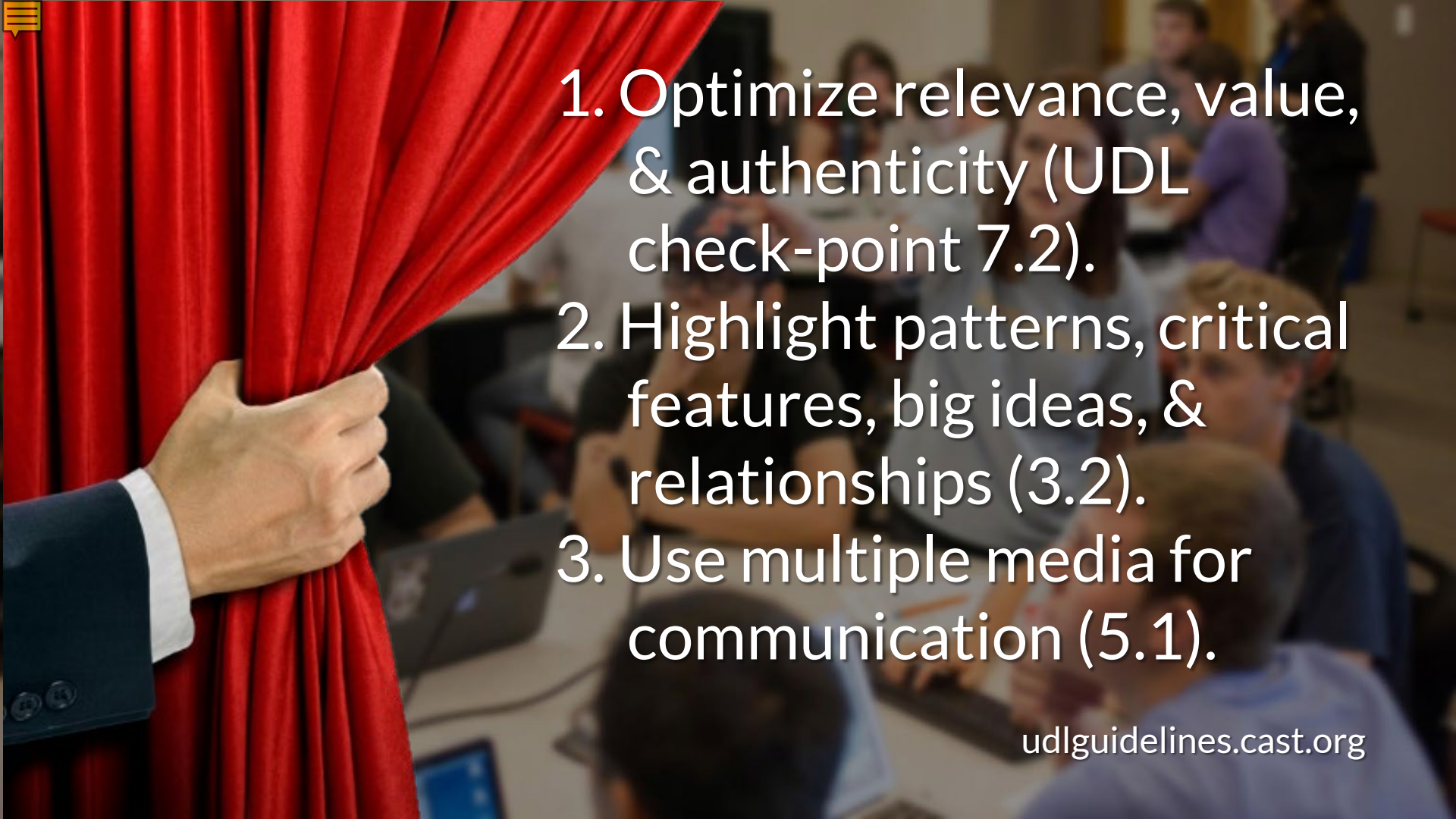
+1

So, what's your UDL?



# Universal Design for Learning

What patterns do we find among everyone's responses?

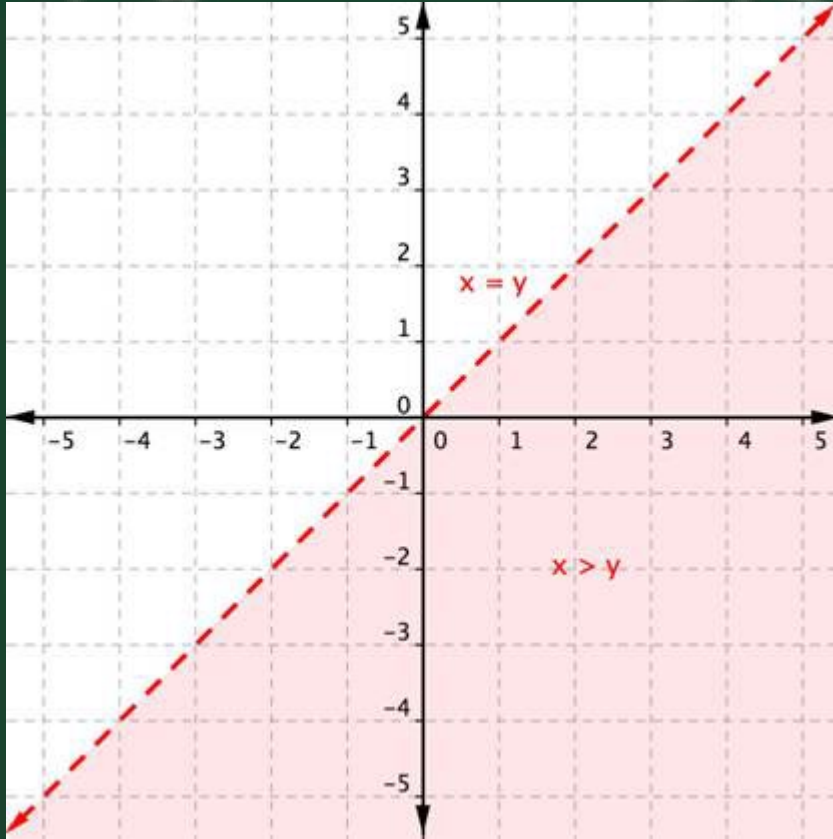
- 
- A hand in a dark suit jacket is pulling a vibrant red curtain to the left. Behind the curtain, a blurred classroom scene is visible, showing several students sitting at desks, some looking towards the camera and others looking away. The lighting is soft, and the overall atmosphere is that of a reveal or a transition from a hidden state to a visible one.
1. Optimize relevance, value, & authenticity (UDL check-point 7.2).
  2. Highlight patterns, critical features, big ideas, & relationships (3.2).
  3. Use multiple media for communication (5.1).

$y_2$   
 $y_1$   
 $0$   $x_1$   $x_2$   $x$   
 $A$   $B$   
 $y = a(x-b)^2 + c$   
 $V = \frac{4}{3}\pi r^3$   
 $SA = 4\pi r^2$   
 $AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$   
 $4^{\frac{3}{2}} = \sqrt[2]{4^3}$   
 $\log_c\left(\frac{a}{b}\right) = \log_c a - \log_c b$   
 $\pi \approx 3.14$   
 $\sin 30^\circ = \frac{1}{2}$   
 $\sin 45^\circ = \frac{1}{\sqrt{2}}$   
 $\sin 60^\circ = \frac{\sqrt{3}}{2}$   
 $SA = 2lw + 2lh + 2wh$   
 $\cos\left(\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2}$   
 $\left(\frac{a}{b}\right)^c = \frac{a^c}{b^c}$   
 $a^2 + b^2 = c^2$   
 $8^2 + 6^2 = c^2$   
 $64 + 36 = c^2$   
 $\frac{100}{\sqrt{100}} = \pm 10$   
 $a + b + c + d = 360^\circ$   
 $a + b + c = 180^\circ$   
 $8^2 + 6^2 = c^2$   
 $64 + 36 = c^2$   
 $\frac{100}{\sqrt{100}} = \pm 10$   
 $2x^2 + 3x + 4 = y$   
 $y = kx^2, k > 0$   
 $y^k$   
 $\log_a 1 = 0$   
 $\sum_{k=1}^n k = \frac{1}{2}n(n+1)$   
 $(x+y)^n = \sum_{k=0}^n \binom{n}{k} x^{n-k} y^k$   
 $3^0 = 1$   
 $\sqrt[n]{x} = x^{\frac{1}{n}}$   
 $\sin^2 y + \cos^2 y = 1$   
 $(a-b-c)^2 = a^2 + b^2 + c^2 - 2ab + 2bc - 2ca$   
 $\frac{x}{x+2}$

A silhouette of a person in a suit pointing towards a presentation board. The board displays several data visualization elements: a bar chart with four bars of different colors (red, yellow, blue, green), a line graph with a red jagged line, a green bar chart with three bars, a donut chart with five segments in different colors, and several horizontal lines representing text or data points.



A chemistry experiment setup on a laboratory bench. A hand in a white glove pours liquid from a flask into another, causing a large amount of white foam to erupt from a flask containing a green liquid. Other flasks with various colored liquids (purple, red, green) are visible. The background is a chalkboard covered in chemical equations and diagrams, including  $H_2O$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  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$CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ ,  $N_2$ ,  $CO_2$ ,  $H_2$ ,  $CH_4$ ,  $HCN$ ,  $NO$ ,  $NO_2$ ,  $N_2O$ ,  $N_2O_4$ ,  $N_2O_5$ ,  $N_2O_3$ ,  $N_2O_2$ ,  $N_2O$ ,  $N_2$ ,  $N$ ,  $O$ ,  $H$ ,  $C$ ,  $H_2O_2$ ,  $H_2O$ ,  $H_2$ , <

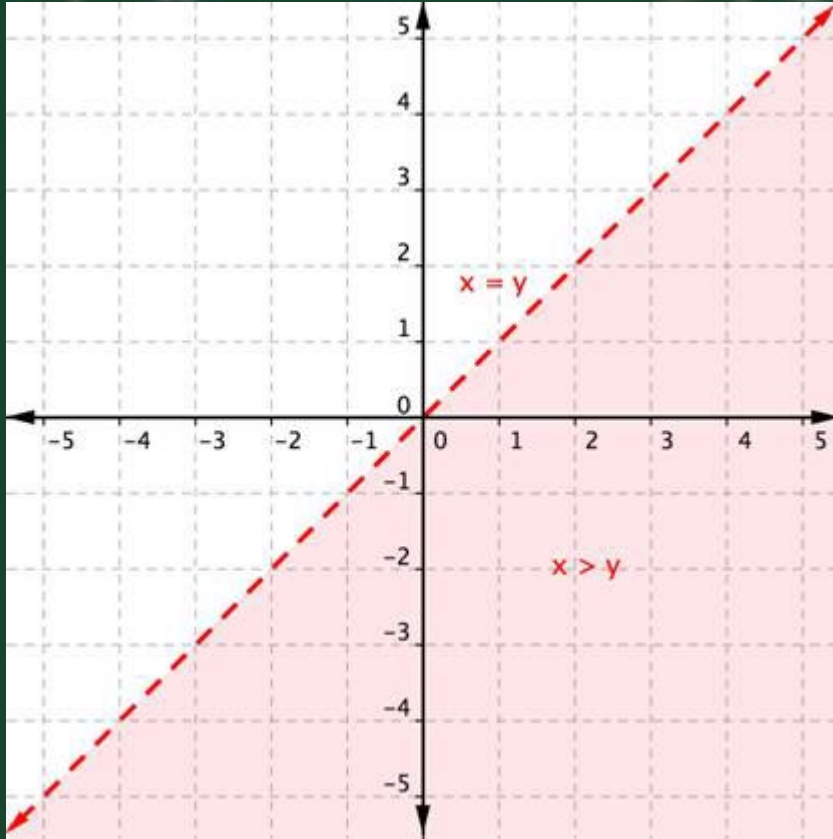


# Defining linear inequalities

Instead of equations, we can define areas that are unequal within a given relationship.

The shaded part of the graph  $x > y$  is a simple linear inequality.





# Defining linear inequalities

Before UDL: Provide a point in the solution set  $x > y$ .

With UDL: Modify or create a linear inequality, and describe, draw, or shade it.



Vary the methods for  
response and navigation  
(UDL checkpoint 4.1)



# BUS 135: Customer Relations

Before UDL: Read about active listening techniques in sales.

With UDL: Read, watch, interview, or practice active listening in sales.

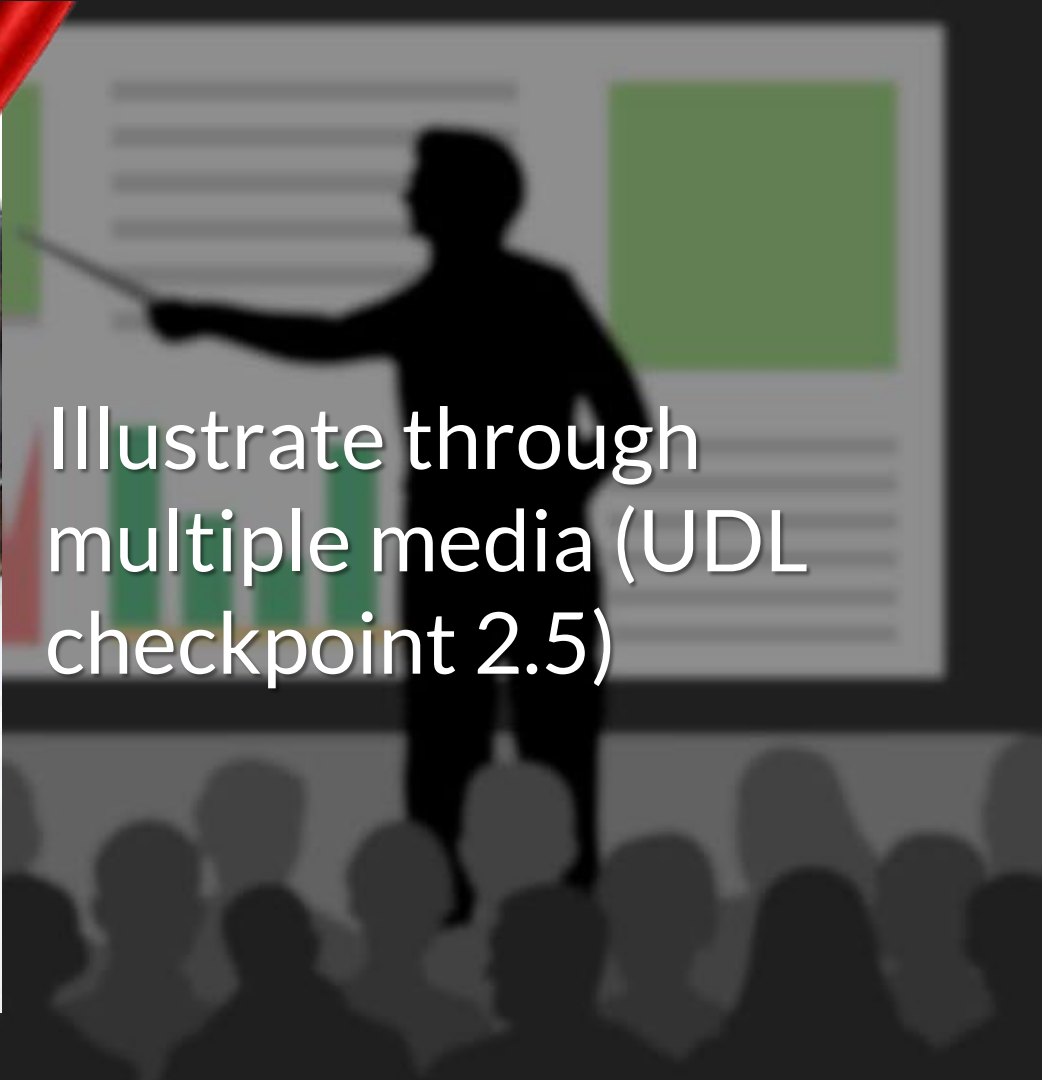


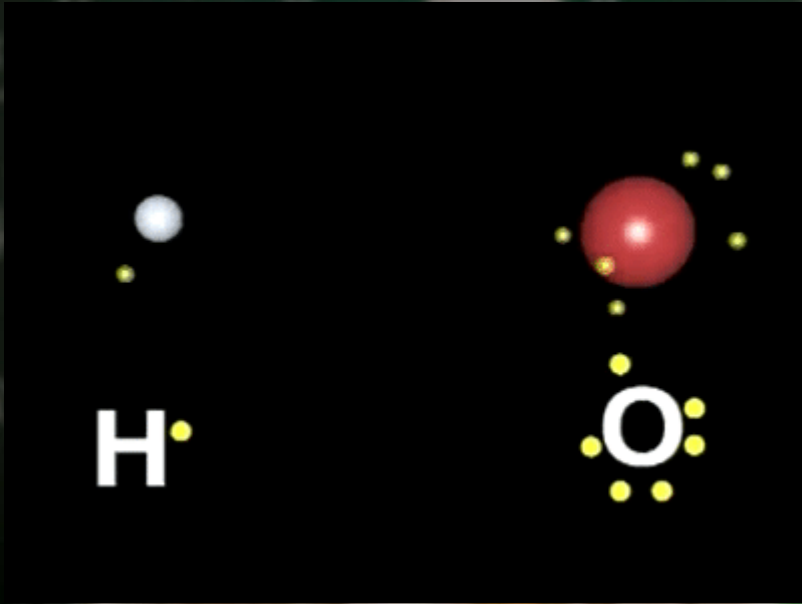
# BUS 135: Customer Relations

Activity: Predict where you could expand how learners find out new information.



Illustrate through  
multiple media (UDL  
checkpoint 2.5)



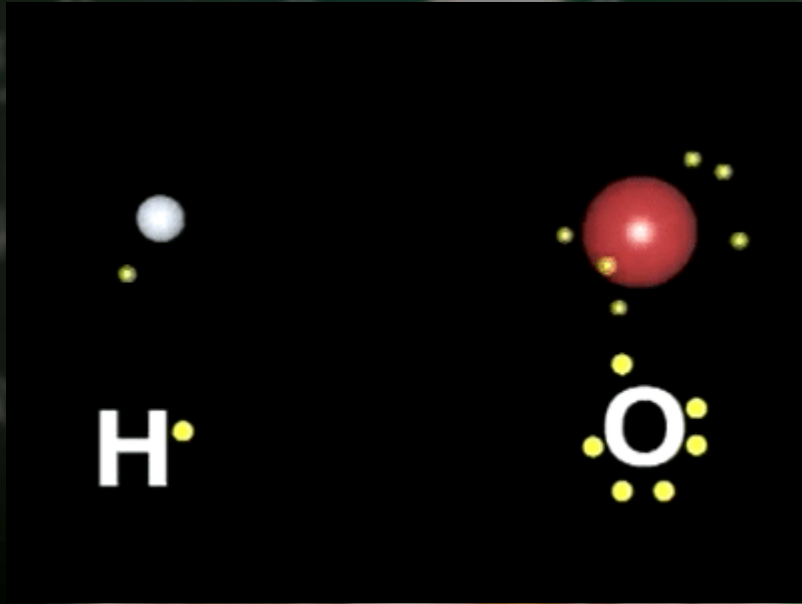


# Chemistry: Covalent Bonds

A covalent chemical bond involves the sharing of electrons to form electron pairs between atoms.

Note the pairing element in the bonds.

# Covalent Bonds

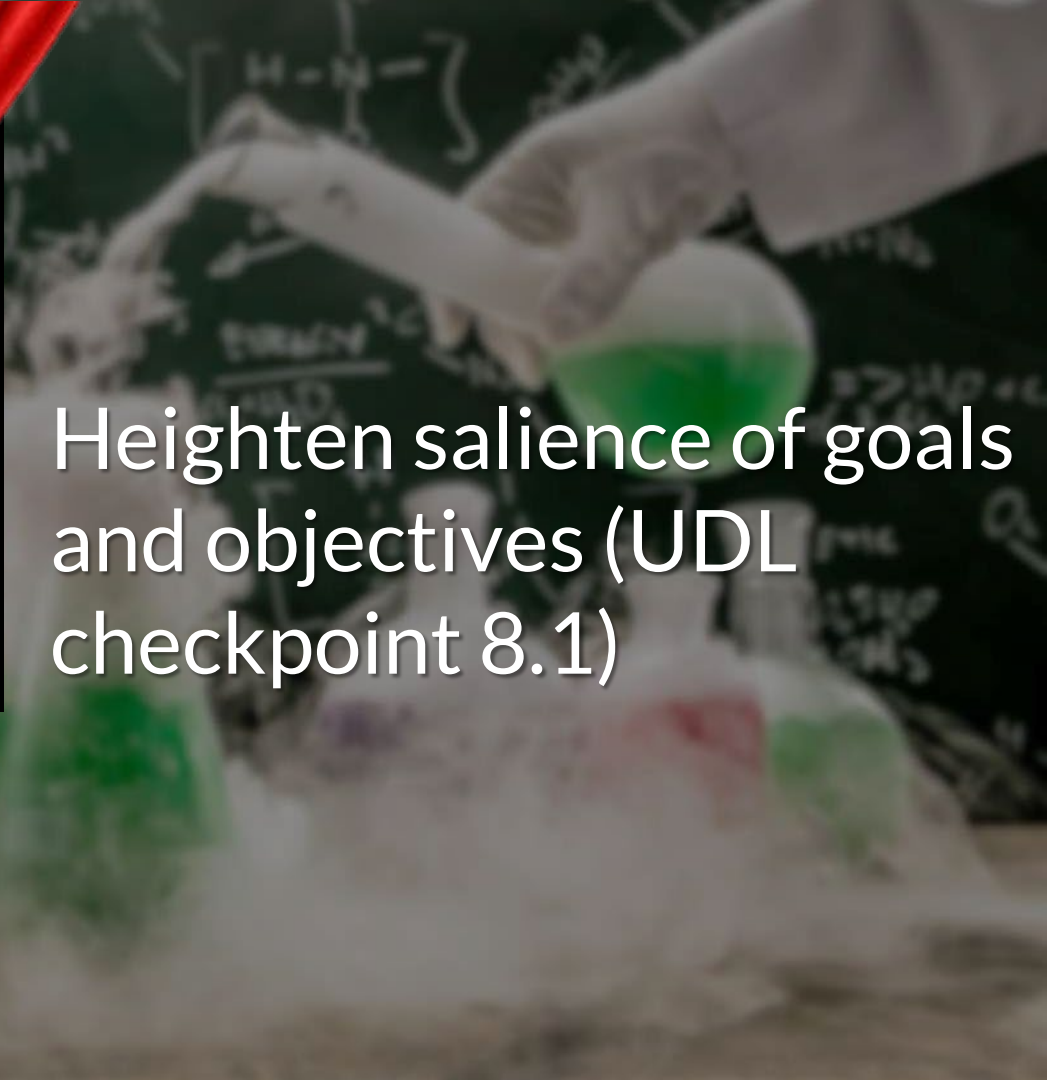


Before UDL: You need to know this contrasts with ionic bonding & sets up a) the exception of hydrogen to the octet rule & b) knowing how to draw Lewis diagrams.

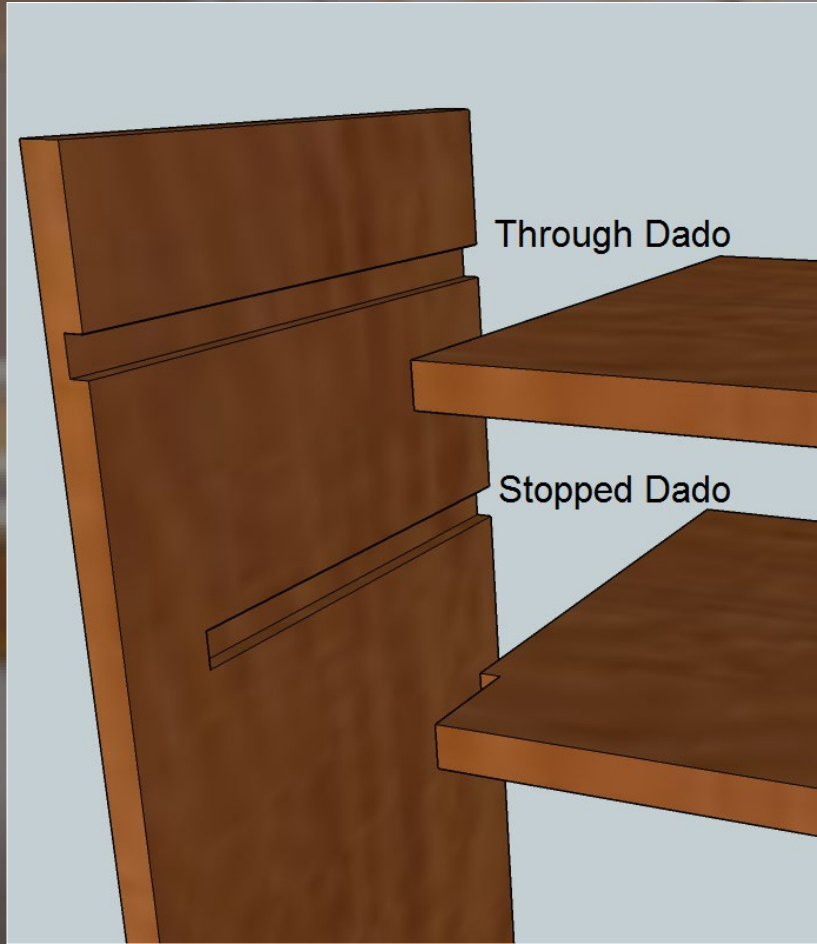
With UDL: Knowing how atoms share electrons allows us to name molecules & define electromagnetic bonds. Covalent are the simplest chemical bonds.



Heighten salience of goals and objectives (UDL checkpoint 8.1)







# Carpentry: Dado

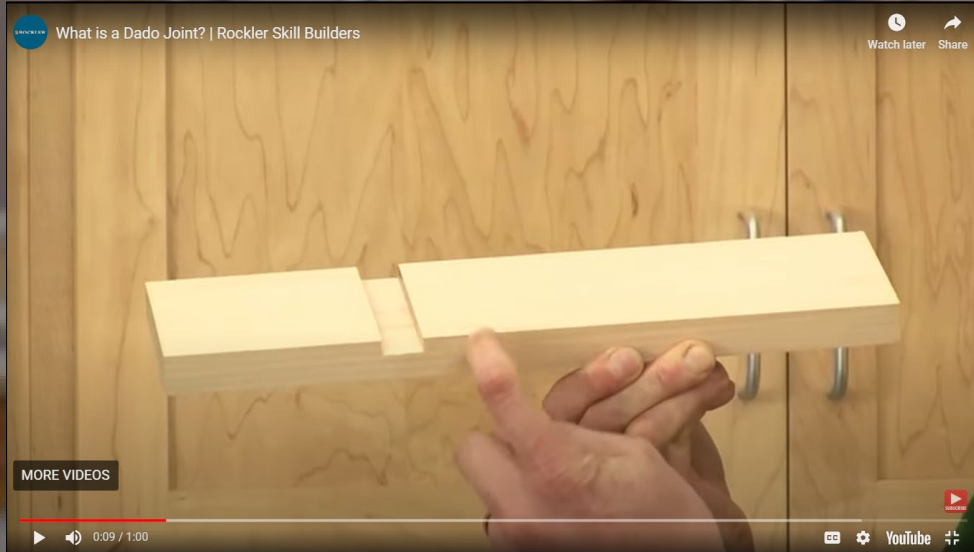
Joinery: dado joints allow two pieces of wood to be attached together in a strong & stable way.

Dadoes are cut against the wood grain, with butts or rabbets inserted into them.

# Carpentry: Dado

Before UDL: static diagrams and text-based descriptions of processes.

With UDL: animations, how-to-videos, explainers, hosted in the learning management system.

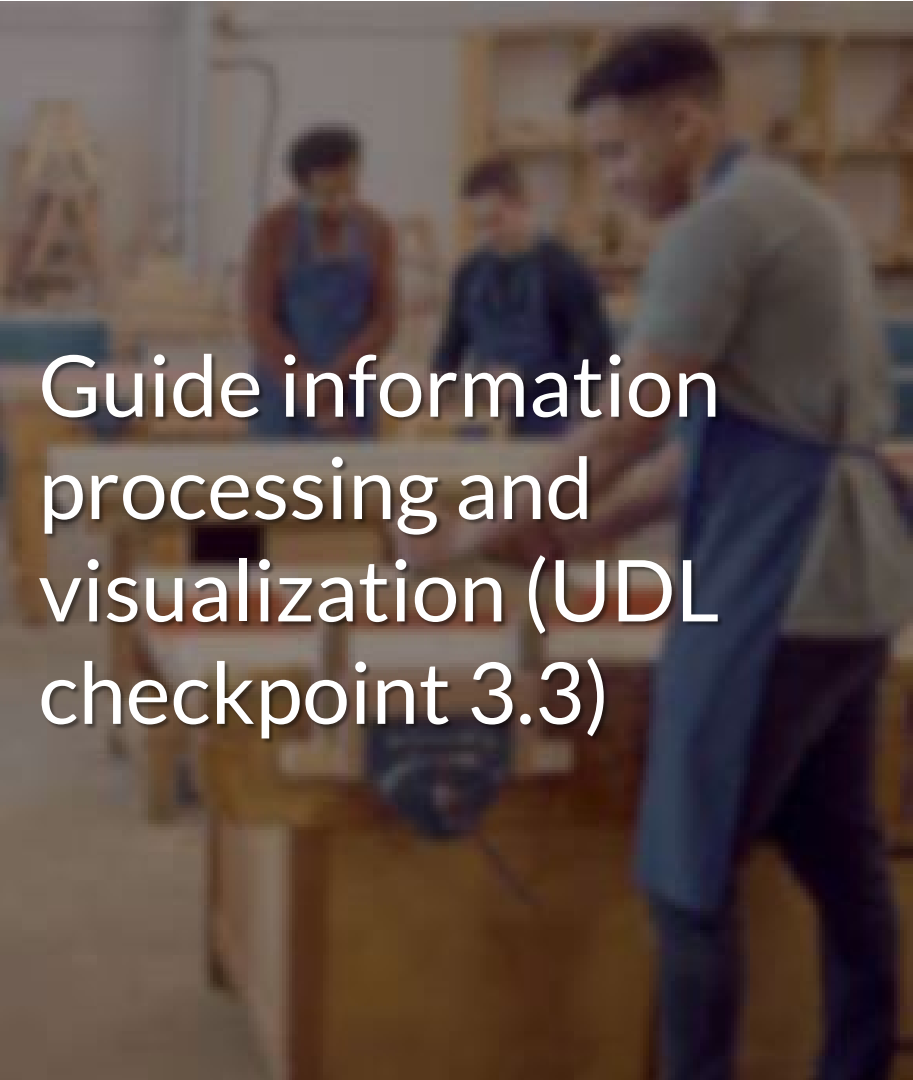




Watch later Share

YouTube

# Guide information processing and visualization (UDL checkpoint 3.3)



# Take-Aways

TAKE AWAY  
MADE TO ORDER  
Margherita  
Pizzeria

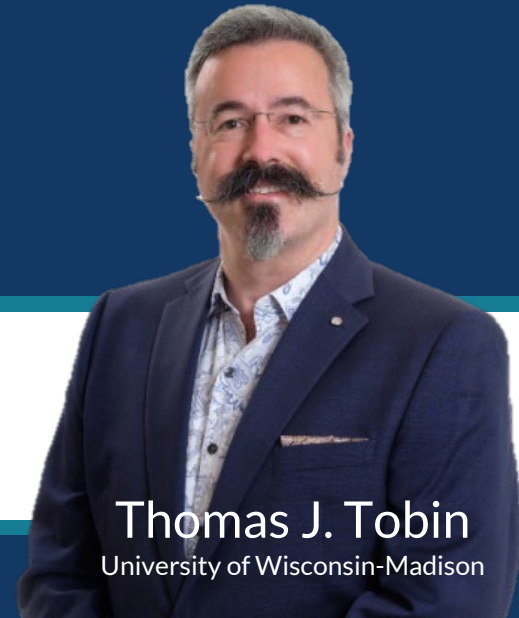


# THANK YOU!

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ADCET Webinar Series  
April 17, 2024



Thomas J. Tobin  
University of Wisconsin-Madison