

Exploring Nano & Society—Tell a Nano Story

Try this!

1. Select a card to begin a story inspired by the picture.
2. Continue to add cards as you tell your story. You can use as many or as few cards as you need—but remember, every story has a beginning, middle, and end!
3. Something missing from your story? Draw your own technology, character, or place card!



Think about it...

1. Who is the main character of your story? What new technologies might they need in their adventure?
2. What do you think the future will look like if all these new technologies are developed?
3. How will a future society be the same or different compared to our current society?

What's going on?



Nobody knows what the future will bring, but most of us think about the future all the time. It's fun to imagine what our lives might be like in the future—and it's also important. We have the things we do today because in the past, people thought about the kind of world they wanted and invented technologies to help make their dreams real.

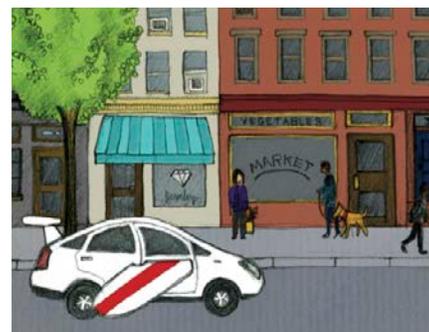
Science fiction storytelling is just one place people write down and capture their vision for what the future might look like.

“Trying to predict the future is a discouraging and hazardous occupation,” science fiction author Arthur C. Clarke said in 1964, and yet he got it remarkably right in his own predictions, including his 1968 vision for a tablet. He wasn't alone. Isaac Asimov, another famous author, predicted online education, Douglas Adams predicted e-books, and Ray Bradbury predicted that we would reach Mars (though, so far, we've only done so with robotic extensions of ourselves). What do you predict the future will look like? We can all think about the kind of world we want in the future and begin planning for it. Are there new technologies we'll need to develop and adopt? How might society change as these become more available and commonplace?

How is this nano?

Technologies and society influence each other. New technologies will open up new possibilities, shape our relationships, promote the values of those who build them, and through a variety of systems affect many different parts of our society and communities. Likewise, our own society will have a dramatic effect on what technologies are developed and adopted.

New nanomaterials will have a significant impact on our lives in the coming years, so it is very important that we engage in open conversations about what nanotechnology is, what is possible, and where we would like it to go.



Learning objectives

1. Technologies and society influence each other.
2. People's values shape how technologies are developed and adopted.
3. Technologies affect social relationships.
4. Technologies work because they are part of larger systems.

Materials

- Tell Me A Nano Story Cards and Draw Your Own Story Cards
- Crayons

Notes to the presenter

Getting started: Lay out a selection of cards on the table—face-up. We've found it works well to start with somewhere between 9 and 15 cards. You can use the "Think about it" questions to get visitors started telling a story, and while they are telling the story. Visitors can start a story with just one card and add cards as they continue, or they can tell a story around a selection of cards. You can pick a card to get them going, or let them choose their own.

Game play is flexible. This activity is designed as an open-ended, conversational experience. Listen carefully to the nano story that visitors create. A nice way to reinforce the storytelling aspect of this activity is to tell the story back to the visitors or suggest that they tell the story again to other members of their group.

Additional "Think about it..." questions:

- How do your own values, or the values your characters, influence what technologies were used?
- How do the technologies affect the social relationships in the story? Are friendships impacted? Family relationships?
- What larger systems were required for the technologies in their story? Will we need new or additional infrastructure to make technologies safe, accessible, or affordable?

Game play modifications: For larger groups, such as classes or camps, visitors can work collaboratively to develop a story together by taking turns choosing a card and adding a plot twist or a new character to the collective narrative. For very young visitors, you can use the cards to tell them a custom story. Allow the child to pick a certain number of cards and use the illustrations as prompts for your own science fiction story.

Related educational resources

The NISE Network website (www.nisenet.org) contains additional resources to introduce visitors to the relationship between nanotechnology and society:

- Public programs include *Exploring Nano & Society—Flying Cars, Nanotech and Consumer Products, Robots & People*, and *Would You Buy That?*
- NanoDays activities include *Exploring Nano & Society—Space Elevator*, *Exploring Nano & Society—You Decide!* and *Exploring Properties—Invisibility*.
- Forums include *Energy Challenges*, *Nanotech Solutions?*; *Nanomedicine in Healthcare*; *Privacy, Civil Liberties, & Nanotechnology*; and *Risks, Benefits and Who Decides?*
- Media include *Does Every Silver Lining Have a Cloud?*, *Is that Robot Real?*, *Let's Talk About It*, *Same Sides, Societal and Ethical Implications Posters*, *Invisibility Cloak*, and *Wonders and Worries of Nanotechnology*.
- Exhibits include *Balance Our Nano Future* and *Nanotechnology: Fact or Fiction?*

Credits and rights

This activity was created as a collaboration of the NISE Network and the Center for Nanotechnology in Society at Arizona State University. Artwork by Emily Maletz.



This project was supported by the National Science Foundation under Award No. 0940143 and 0937591. Any opinions, findings, and conclusions or recommendations expressed in this program are those of the author and do not necessarily reflect the views of the Foundation.