Imagine a toy excavator with a soil sensor, a balloon with air quality sensing, or a remote controlled boat with water quality sensors. Where are the toys that promote play, curiosity, and exploration of our world?

For this provocation your design space is that of exploratory technologies for kids. The act of physical play and imagination should be your catalyst in a critical design of new opportunities for sensing, curiosity, and expression through playful exploratory artifacts.

What are appropriate and compelling ways to integrate sensing and expression into play? Can such new objects and interactions aid in education? Be a tool for creating new narratives? Assist children in navigating social situations and friendships?

Your final design must afford a new insight, ability, or experience of “seeing” the world. This novel artifact should be a child’s new lens into an exploration of their world promoting curiosity and wonderment.

You will first need to explore a set of existing toys and playful objects, observe and understand their role in play, and how they can be re-imagined to include sensing and expression. Clearly, there are a range of products that explore some of this space. You need to look beyond these towards future play.

Look at alternative materials - chalk, clay, rocks, rope, etc.

Curious Sensor - your final design should be a functional extension of a playful object or a new artifact based on cultural observations of play. It must include sensing beyond that of simply buttons and switches for modes and sounds. **Your designed artifact should be motivated by the cultural activities surrounding play and provide a new curiosity in that landscape.**
You should visit a toy store and take note of the range and interactivity of objects you find there. Be inspired. Look at the landscape where these toys are played with for inspiration - sandboxes, swings, doll houses, rugs, etc. Use the material provided in class about the various children age groups along with additional findings you source to motivate, guide, and evaluate your design.

Your team will be required to deliver a 5 minute presentation communicating:

- documentation and images of your toy landscape investigation
- motivation (and/or need) for your design (why should we care?)
- a brief demo in class of your working prototype
- a brief video sketch (1-2 min) of your prototype in situ

You will need to hand in the following materials:

- a title for your project
- a 120x120 image representing your project
- one paragraph of text describing your project
- your observational documentation
- competitive analysis of your design concept
- design process documentation (intermediate designs, sketches, ideas)
- a brief video sketch (1-2 min) of your prototype in situ demonstrating current and envisioned future
- an instructable style process document describing the step by step making of the work
- you must include circuit diagrams as well as design sketches