



**Instructor's Name:** Rachael Heidorn

**Subject :** Science

**Grade:** Kindergarten

**Title of Lesson:** Shadows

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**Materials and Resources (including technology):**

- Chalk
- [Interactive Shadow Maker](http://www.bbc.co.uk/schools/scienceclips/ages/7_8/light_shadows.shtml)  
[http://www.bbc.co.uk/schools/scienceclips/ages/7\\_8/light\\_shadows.shtml](http://www.bbc.co.uk/schools/scienceclips/ages/7_8/light_shadows.shtml)
- [Bear Shadow by Frank Asch](#) YouTube story book
- [What Makes Shadows worksheet](http://www.eyeonthesky.org/activities_pdf/04sun_shadows-ws.pdf)  
[http://www.eyeonthesky.org/activities\\_pdf/04sun\\_shadows-ws.pdf](http://www.eyeonthesky.org/activities_pdf/04sun_shadows-ws.pdf)

**Standard(s) the Lesson will Address:** Type out the source, number, and the text of the standard (s) addressed in this lesson

2. Scientific inquiry is a set of interrelated processes used to pose questions about the natural world and investigate phenomena.

0.1.1.2.1

**Objective:** State the CONDITION, the BEHAVIOR, and the CRITERIA. Label in ( ) the predominant domain of **C** for Cognitive, **A** for Affective, or **P** for Psychomotor. DO NOT make every condition “at the conclusion of the lesson..”

**C:** Students will be observing online items and how the sun affects their shadows and observing their own shadow's outside.

**P:** Students will be moving the virtual sun to see how the shadow changes throughout the day. They will also be drawing a partner's shadow on the ground.

**Vocabulary:**

**Academic:** Sun, night, day, partner

**Content:** Shadow

**Anticipatory Set:** How will you get the students ready and/or excited to accept instruction?

Play the YouTube video of [Bear Shadow](#) by Frank Asch

**Pre-Assessment Plan (if any):** Pre-assessments help you to determine what students already know and bring to the lesson content.

Write on the whiteboard “Where would be the best place to stand on a sunny day?” Have “under a tree” and “in the ocean” as options. They will put a tally where they think the right answer would be.

**Input: (SCRIPTED)** *Detailed planning: Write plans to a level of depth that would allow another teacher to use the plan to deliver the instruction. Script the learning target(s), transitions and key questions as well as timings.)*

Open up [Interactive Shadow Maker](#) on the SMARTboard and show them how the shadow changes when the sun moves. Have them all at the front of the room at this point, each taking turns.

Explain that each student will use chalk to trace the outline of his or her partner’s shadow on the playground.

Go outside and give each child some chalk. Have them stand wherever on the sidewalk and have them draw where their partner's shadow is.

Make sure they really trace the feet and put their name or initials next to their shadow.

**Guided Practice (Formative Assessment):**

Before the students are free to do this activity themselves. Show them how to do it by asking for a volunteer to stand and you draw their shadow.

**Closure: (SCRIPTED)**

“Later today we are going to go stand in the same exact spot and see how far our shadow has moved.”

**Independent Practice/Summative Assessment:** (How will students extend or apply their learning OR demonstrate mastery? If demonstrating mastery, include criteria for evaluation (checklist, rubric, sample, etc).

## [What Makes Shadows worksheet](#)

**Accommodations & differentiation for learners:** (For all practice lesson assume that you have at least one student in each category: attention/focus issue, language processing issue, sensory issues)

Attention: Have Jimmy be the one who traces you in order to keep his focus.

Language: All but Taylor and Sydney know how to write their name. Make sure you help them but do not do it for them.

Sensory: Make sure none of the students look at the sun but Max needs to wear his sunglasses at all times outside.

### **Multiple Intelligences Addressed:**

- visual/spatial
- body/kinesthetic

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### **AFTER TEACHING THE LESSON:**

Respond with *professional insights that go beyond superficial considerations*.

- As I reflect on the lesson, to what extent were students productively engaged?
- To what extent did the students learn what I intended? Were instructional objectives met?
- To what extent did I alter my objectives or instructional plan as I taught the lesson? Why?
- To what extent did I practice effective classroom management strategies? What issues do I need to address when I teach again?
- To what extent did I provide closure to the lesson?
- If I had the opportunity to teach this lesson again to the same group of students, what would I do differently? Why? How would this affect the outcome of this and future instruction?