### Let's Learn About

# FROM DEFINITION TV with Heidi, the HD Hippo<sup>™</sup>

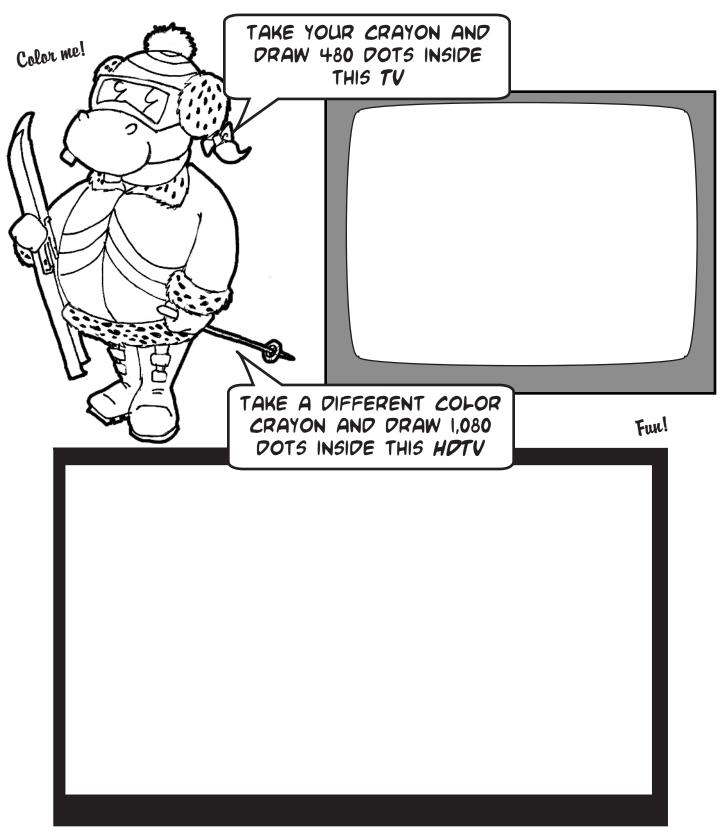
COLORING AND ACTIVITY BOOK



works best with high definition crayons

### First off, what is High Definition?

HD (for short) is a **RESOLUTION**, or number of individual lines of pixels (dots of color) that can be displayed on your television. Standard TVs display **480 lines**, where a high definition television can show **720** or even **1,080 lines**.



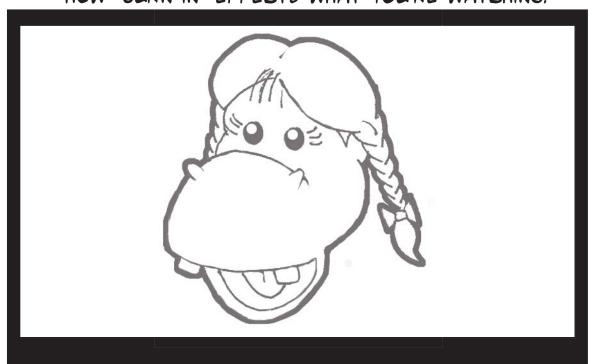
### So now which type of HD TV should you get?

There are three popular types of HD televisions. Each has it's own pros and cons.

- **DLP -** uses one or more spinning color wheels and millions of mirrors to create a smooth moving image.
- **LCD -** viewable under more realistic lighting, however fast action sequences can get blurry.
- **PLASMA -** vivid colors and contrast, but one image on the screen too long may cause it to be permanantly burned in.

UH-OH THIS PLASMA TV HAS BURN-IN!

DRAW YOUR FAVORITE SCENE ON THE TV BELOW, NOW YOU CAN SEE
HOW "BURN-IN" EFFECTS WHAT YOU'RE WATCHING.



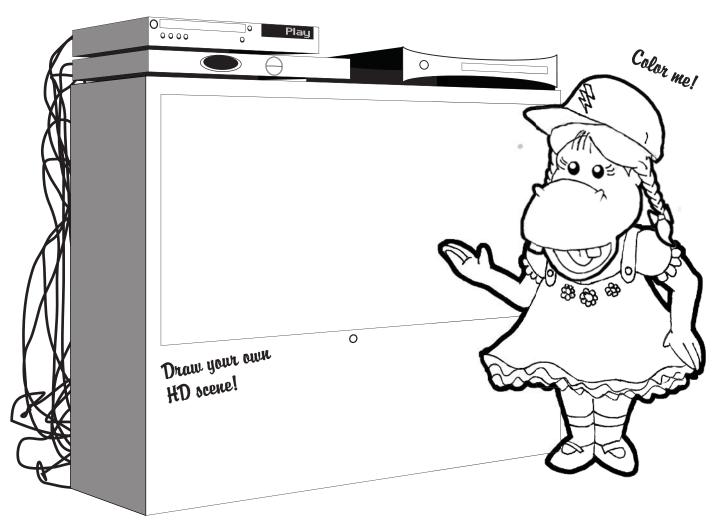
## Make your own! DLP Projector Television!



- 1. Draw a circle on a piece of cella phane. Divide it into 3 equal pieces, color one section blue, another, green, and another red.
- 2. Cut the end off on an old frozen orange juice can so you have a tube. Cut out the cellophane circle and tape it to the end of the can. Place the open end over the head of a flashlight.
- 4. Aim it at your mirror and spin the can. If you stare long enough, you'll see a picture!

### How do you hook it all up?

There are several ways to connect your DVD player, Blu-Ray<sup>™</sup> player, cable or satellite box, and game system to your HD TV. Help Heidi sort out the mess on the next page.



BLU-RAY™ DISCS DELIVER MOVIES AT 1080p, BUT WILL ONLY PLAY ON BLU-RAY™ PLAYERS. THESE PLAYERS ALSO PLAY AND UPCONVERT OLD DVDs.

OR YOU MAY JUST WANT AN UPCONVERTING DVD PLAYER TO IMPROVE YOUR STANDARD DEFINITION DVDs, THE UPCONVERSION ONLY WORKS OVER HDMI CABLES

Handy Tip!

the Sony PlayStation 3<sup>™</sup> plays Blu-Ray<sup>™</sup>movies AND upconverts standard defintion DVDs

Color me!

HET'S USE THE COMPONENT WIRES TO CONNECT THE CABLE BOX TO THE TV. DRAW RED, BLUE, AND GREEN LINES TO CONNECT THEM.



YOU WON'T HEAR ANYTHING UNLESS YOU PLUG IN THE RED+WHITES (RCA) FOR STEREO SOUND





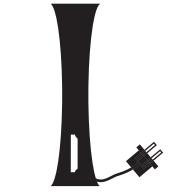




DRAW A LINE TO CONNECT THE UPCONVERSION DUD PLAYER TO THE TV BY THE HDMI PORT



CONNECT THE BLU-RAY TO DISC PLAYER TO THE TV BY DRAWING A LINE CONNECTING THE HOMI PORT TO THE TV'S HOMI PORT



DRAW A LINE TO CONNECT YOUR GAME SYSTEM TO THE TV'S HDMI PORT

Handy Tip!

You can buy cables that have HDMI on one end, and DVI on the other.
Or buy a 2-way switch that allows two HDMI cables into one outlet

DON'T FORGET TO DRAW A LINE FROM EACH DEVICE TO THE ELECTRIC SOCKETS!

















UH OH! THIS TV ONLY HAS ONE HOMI INPUT!



### Should my family become an "HD Family?"

High Definition is all about looking and sounding your best. It's a new technology that's becoming more and more common. As time goes on, everything will be presented in HD. Older technology will be phased out and prices will come down. Much like how you can only find VHS tapes in the bargain bin at Wal\*Mart (if at all) and the

cost of a new DVD player is almost the same price as two people going to the movie theater. Help me look my best Color me and my date!

As of February 2009, all broadcast TV signals will become digital, though not necessarily HD. If you don't use cable or satellite, but get your TV from "rabbit ears" you'll need to get either a new digital ready TV, or a special convertor box.

#### Will old TV shows and movies look bad on an HD TV?

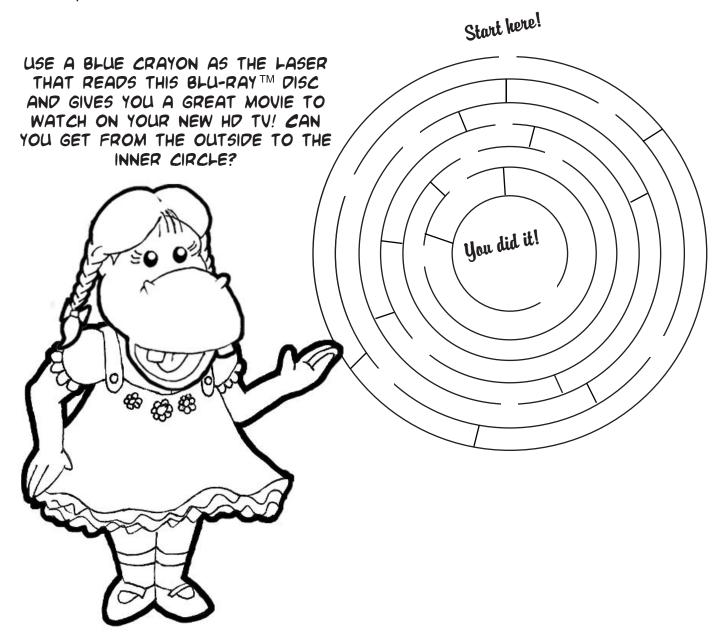
We discussed earlier how old TVs have a 480 resolution and HD TV's have 720 or 1080 resolution. Instead of watching a tiny picture in the middle of a large screen, the HDTV "zooms in" on the old image, and that's what can make it look fuzzy. Most cable providers offer duplicates of favorite stations in an HD format. If not, it's because they're old and dumb. Fortunately DVDs store more information than they actually show on old TVs, so an upconversion DVD player provides a signal that doesn't have to be stretched as far.



Here is the same image at the different resolutions but at the same size. You can use a magnifying glass to see what happens when you're able to fit 1080 lines in where it used to only be 480.

### What is Blu-Ray™ all about?

Instead of enlarging a 480 or 720 image to fit a 1080 screen, a Blu-Ray<sup>TM</sup> disc holds movies made at 1080 lines to begin with. Since it uses a new technology (a blue laser!), a lot more information can be stored on a Blu-Ray  $^{TM}$  disc than a traditional DVD. That means better picture and sound, and lots more extras.



WE SURE LEARNED A LOT ABOUT HD TV AND THE MOVIES AND SHOWS YOU CAN WATCH ON IT! IN THE FUTURE WE'LL LEARN ABOUT DIGITAL RIGHTS MANAGEMENT, FIBER OPTICS, HDCP, AND REGIONAL ENCODING!

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